Evaluating the Common Agricultural Policy 2023-2027

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Executive Summary

This paper reviews and summarises a range of evaluations and analyses that will assist in the preparation of the Evaluation Framework for Ireland’s Common Agricultural Policy (CAP), Strategic Plan (CSP) 2023-2027. The aim of this paper is to outline the methodological approach that may be undertaken for evaluating the proposed interventions under Ireland’s CSP. Findings from national evaluations and spending reviews, as well as evaluations undertaken by other EU Member States were used to assess how interventions under the previous CAP programming period were evaluated. Finally, the paper provides a number of recommendations as to how interventions in the next CAP period (2023-2027) should be evaluated.

No evaluations to date have been completed for most of the Pillar I interventions by the Department of Agriculture, Food and the Marine (DAFM), however, a detailed evaluation on sectoral interventions in the Fruit and Vegetable sector was undertaken in 2021. Four of the seven Pillar I interventions have been evaluated by other EU countries.

Pillar II interventions on the other hand have been much more widely evaluated by both DAFM and by other EU Member States. The Straw Incorporation Measure, Continuous Professional Development for Advisors and the Dairy Beef Welfare Scheme are the only interventions, where no equivalent evaluations could be found. The Producer Organisations in the Beef and Sheep Sector scheme had no equivalent evaluation undertaken by the DAFM; and both the Agri-Environment Training and Suckler Carbon Efficiency Training were not evaluated by any other EU Member State. This information is displayed in Table 1 below.

The most extensive evaluations conducted by the Irish government were those of the GLAS and Burren programmes. These programmes relate to the Agri-Environment, and the Agri-Environment (Local) schemes respectively. These in-depth evaluations were conducted due to their importance in meeting the ambitious environmental related goals incorporated within them.

While there is some form of evaluation for many of the interventions, it is often only the mid-term evaluation which focuses on output and productivity whilst not specifically considering the objectives of the interventions. As such, evaluations going forward should pay close attention to the reasons why the indicators for selected interventions (and thus objectives) are chosen; and should assess the impact of an intervention.

By considering the methodologies used to evaluate interventions completed by other Member States, as well as studies carried out by the European Commission, valuable lessons can be learnt, and methodologies beyond what have previously been adopted in Ireland can be used. This is
particular the case for interventions concerning collaborations and information sharing, including those seeking to improve standards in (sustainable) agricultural practices. Such interventions include European Innovation Partnership AGRI operational groups and the locally led approach under the LEADER programme.

Several other key takeaways and recommendations have resulted from the completion of this report. With regards to the management of data: collating larger sample sizes, consolidating a baseline dataset, and ensuring data compatibility between programmes, will be necessary to ensure successful monitoring and evaluations going forward. Additionally, putting early plans in place to successfully manage the data collection process for the next programme period will be essential. By continuing to monitor previous interventions and embracing the use of data visualisation as well, evaluations will be more comprehensive and of greater utility to policy makers going forward.

Following a short introduction, the report aims to outline each intervention starting with Pillar I interventions and followed by Pillar II interventions. For each intervention, a description of the intervention, its related specific objectives, its related result indicators, and its related output indicators are outlined. Additionally, if the information is available, a description of how the intervention was evaluated by the DAFM in the previous CAP programme has been included; and finally an equivalent intervention evaluated by another EU Member State, has been provided where available.

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1 Interventions are still in the development stage and are subject to change in Ireland’s final CSP 2023-27.
<table>
<thead>
<tr>
<th>Intervention</th>
<th>Evaluated in the last CAP? (Y/N)</th>
<th>How was this evaluated, and in which report? (i.e. 2017 vs. Mid-Term vs. Specific Evaluation)</th>
<th>Evaluated by other MS? (Y/N)</th>
<th>How was this evaluated?</th>
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<tr>
<td><strong>Pillar I</strong></td>
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<tr>
<td>BISS</td>
<td>N</td>
<td>-</td>
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<tr>
<td>CIS-YF</td>
<td>N</td>
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<td>Eco Scheme</td>
<td>N</td>
<td>-</td>
<td>N</td>
<td>-</td>
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<tr>
<td>Apiculture</td>
<td>N</td>
<td>-</td>
<td>Y</td>
<td><strong>Germany</strong> - Spatial simulation models - how much floral areas is required to maintain bee colonies</td>
</tr>
<tr>
<td>Fruit and Veg POs</td>
<td>Y</td>
<td><strong>Specific Evaluation</strong> - a detailed evaluation on the National Strategy Operational Programme in the Fruit and Vegetable Sector.</td>
<td>Y</td>
<td><strong>Slovakia</strong> - Propensity Score Matching and a Difference in Differences approach on POs in general.</td>
</tr>
<tr>
<td>Coupled Income support for Protein Aid</td>
<td>N</td>
<td>-</td>
<td>N</td>
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<tr>
<td>CRISS</td>
<td>N</td>
<td>-</td>
<td>Y</td>
<td><strong>Lithuania</strong> - empirical research involving expert survey, a system of quantitative indicators and their weights</td>
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<tr>
<td><strong>Pillar II</strong></td>
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<tr>
<td>Agri-Environment Scheme (General Measure)</td>
<td>Y</td>
<td><strong>Specific Evaluation (i.e. the GLAS Evaluation)</strong> - Longitudinal field survey of actions; qualitative survey of attitudes w/counterfactual sample; impact analysis of water quality. Results were also summarised in the 2017 Evaluation and Mid-Term Evaluation.</td>
<td>Y</td>
<td><strong>Wales</strong> - Field surveys of different land classes including the use of satellite photography; Comparison of legacy effects of past schemes</td>
</tr>
<tr>
<td>Agri-Environment Scheme (Cooperation)</td>
<td>Y</td>
<td><strong>Specific Evaluation (i.e the Burren evaluation)</strong> - Intervention logic matched with indicators; farm surveys, and stakeholder interviews; Scoring system of management</td>
<td>Y</td>
<td><strong>United Kingdom</strong> - Intervention logic model accounting for farmer behaviour and environmental factors; Regression analysis on uptake of schemes; survey of</td>
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<tr>
<th>Area</th>
<th>Evaluation Methods</th>
<th>Analysis Methods</th>
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<tr>
<td><strong>Agri-Environment Training</strong></td>
<td>Specific Evaluation (i.e. the GLAS Evaluation) - Survey of trained participants. Results were also summarised in the 2017 Evaluation and Mid-Term Evaluation.</td>
<td>N</td>
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<tr>
<td><strong>Straw Incorporation Measure</strong></td>
<td>-</td>
<td>N</td>
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<tr>
<td><strong>Organic Farming Scheme</strong></td>
<td>2017 Evaluation and Mid-Term Evaluation - Descriptive Analysis of indicator data; Literature review; Programme logic model; Mean’s t-test and regression analysis.</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Areas Facing Natural Constraints</strong></td>
<td>2017 Evaluation and Mid-Term Evaluation - Descriptive analysis of indicator data; Difference of means t-test; Analysis of National Farm Survey (NFS) data.</td>
<td>Y</td>
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<tr>
<td><strong>Beef and Sheep POs</strong></td>
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<td>Y</td>
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<tr>
<td><strong>Suckler Carbon Efficiency Scheme</strong></td>
<td>2017 Evaluation, Mid-Term Evaluation and a Spending Review - Descriptive analysis of common and additional indicators complemented by external literature review; Spending review analyzed the expenditure and administrative data related to participants as well as animal performance related indicators.</td>
<td>Y</td>
</tr>
<tr>
<td><strong>Suckler Carbon Efficiency Scheme Training</strong></td>
<td>2017 Evaluation and Mid-Term Evaluation - Descriptive analysis of indicators and training course feedback sheets.</td>
<td>N</td>
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<tr>
<td><strong>Dairy Beef Welfare Scheme</strong></td>
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<td>N</td>
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<tr>
<td>Scheme</td>
<td>Y</td>
<td>Mid-Term Evaluation - Descriptive analysis of indicators relating to the intervention</td>
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<tr>
<td>Sheep Improvement Scheme</td>
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<tr>
<td>EIP-AGRI</td>
<td>Y</td>
<td>Mid-Term Evaluation - Descriptive analysis of indicators relating to the intervention.</td>
</tr>
<tr>
<td>On-Farm Capital Investment</td>
<td>Y</td>
<td>2017 Evaluation and Mid-Term Evaluation - Survey of beneficiaries; Comparative counterfactual analyses of common indicators for beneficiaries and non-beneficiaries; Econometric counterfactual analysis including Propensity Score Matching.</td>
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<tr>
<td>Collaborative Farming Grant</td>
<td>Y</td>
<td>2017 Evaluation and Mid-Term Evaluation – Quantitative analysis of indicator data; microsimulation modelling of policy options; descriptive analysis of participation in scheme</td>
</tr>
<tr>
<td>CPD for Advisors</td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>Knowledge Transfer Scheme</td>
<td>Y</td>
<td>Mid-Term Evaluation - Intervention logic model; survey of beneficiaries; comparisons of means t-test on beneficiaries vs. non-beneficiaries.</td>
</tr>
<tr>
<td>LEADER Programme</td>
<td>Y</td>
<td>2017 Evaluation and Mid-Term Evaluation - Quantitative description of activities taken since project began; interactive storyboard of case studies; Intervention logic model; Quantitative analysis of indicators; Surveys.</td>
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Table 1 – List of all interventions with corresponding methods of evaluation, if available
Introduction/Background

Ireland’s CAP Strategic Plan (CSP) for the period 2023-2027 will underpin the sustainable development of Ireland’s farming and food sector by supporting viable farm incomes and enhancing competitiveness, by strengthening the socio-economic fabric of rural areas, and by contributing to the achievement of environmental and climate objectives at national and EU levels.

The new CSP will represent a change in the approach to CAP planning and implementation compared to previous programming periods. Instead of the familiar compliance-based approach followed previously, a new performance-based approach will be adopted. This will be underpinned by a ‘New Delivery Model’, under which Member States' performance will be measured based on outputs and results, and on how their CSPs contribute to CAP objectives at EU level. The CSP will also take a more holistic approach, incorporating interventions under both Pillar I (Direct Payments and Sectoral Interventions) and Pillar II (Rural Development) into one plan\(^2\).

The previous iteration of the Common Agricultural Policy (CAP) was implemented between 2014 and 2020. During the last programming cycle (CAP 2014-2020), Member State (MS) were required to incorporate an Evaluation Plan into their Rural Development Programmes (RDPs). Once this programming period concluded, it was intended that a new CAP would be implemented between 2021 and 2027. However, following delays in the negotiations of the new CAP regulations– the implementation of the new CAP 2021-2027 was delayed and will now begin in 2023 (2023-2027). A two-year extension between 2021 and 2023, known as the transition period has been provided for until the CAP (2023-2027) can take effect. The new CAP (2023-2027) requires each Member State (MS) to design and implement a CAP Strategic Plan (CSP) based on the needs identified and prioritised by each Member State.

The evaluation framework is intended to act as a reference document for the management, conduct, and follow-up of evaluation activities implemented during the CAP 2023-2027 programming period. It is further intended to act as the foundation for reporting the Annual Implementation Reports, the primary instrument for review during the programming period.\(^1\)

Evaluating the CAP 2023-2027

One of the most significant developments in the 2023-2027 CAP programming period is the New Delivery Model (NDM), a new governance structure that will shift the present compliance-based

\(^2\) Interventions are still in the development stage and are subject to change in Ireland’s final CSP 2023-27.
Evaluating the Common Agricultural Policy 2023-2027

approach to a performance-based approach. Future assessment requirements must be more succinct and must avoid overly general suggestions, as they risk undermining the evaluation commitment. The next CAP programming period (2023-2027) will be monitored and evaluated using the new Performance Monitoring and Evaluation Framework (PMEF). The NDM will demand a robust governance system as is currently the case; but in addition, will require a reconciliation of expenditure incurred with impacts achieved, through a transparent performance reporting framework based on the reporting of outputs and results with milestones and programme targets.

Member States will be required to set for each intervention/scheme:

- annual planned outputs (e.g. number of farmers to be supported, number of hectares etc.);
- annual planned unit amounts (e.g. €/ha, €/beneficiary etc.);
- annual indicative financial allocation for all interventions in the CAP Strategic Plan (i.e. annual planned outputs * annual planned unit amounts); and
- annual milestones and programme targets for result indicators (e.g. x% agricultural area under management commitment to reduce GHG emissions).

It is intended that the evaluators and future certification body be involved in the early phases of establishing the performance framework. This will ensure that the specific objectives of the CSP are linked to relevant indicators which can be used to monitor and evaluate CAP performance.

The Department of Agriculture, Food and the Marine (DAFM) will establish a performance framework for Ireland’s 2023-27 CAP Strategic Plan which will include the following:

(a) a set of common context, output, result and impact indicators which will be used as the basis for monitoring, evaluation and the annual performance reporting;
(b) targets and annual milestones established in relation to the relevant specific objective using the relevant result indicators;
(c) data collection, storage and transmission;
(d) regular reporting on performance, monitoring and evaluation activities;
(e) the ex-ante, interim, and ex post evaluations and all other evaluation activities linked to the CAP Strategic Plan.

This will be achieved by capturing and processing

- indicator data (in respect of output indicators, and result indicators, as required in particular for the completion of Annual Performance Reports) through existing, internal IT systems and data sources.
- monitoring and evaluation data from external sources.
other, more qualitative monitoring data, through alternative means or from other external sources, such as may be provided via the use of external expertise and evaluations

Definition of intervention logic and indicators

Intervention logic
The intervention logic is the logical link between the problem that needs to be tackled (or the objective that needs to be pursued), the underlying drivers of the problem, and the available policy options or actions which can be taken to address the problem or achieve the objective. This intervention logic is used in both prospective impact assessments and retrospective evaluations.

Context indicators
Context indicators provide information on relevant aspects of the external environment that are likely to influence the design and performance of the policy, e.g. GDP per capita, rate of unemployment or water quality.

Impact indicators
Impact indicators measure the outcome of intervention beyond immediate effects. They are normally expressed in “net” terms, which means subtracting effects that cannot be attributed to the intervention (e.g. double counting, deadweight), and taking into account indirect effects (displacement and multipliers).

Output indicators
Output indicators measure activities that are directly realised within programmes. These activities are the first step towards realising the operational objectives of the intervention and are measured in physical or monetary units. Example: number of training sessions organised, number of farms receiving investment support, total volume of investment.

Results indicators
Results indicators measure the direct and immediate effects of the intervention. They provide information on changes in, for example, the behaviour, capacity or performance of direct beneficiaries and are measured in physical or monetary terms. Example: gross number of jobs created, successful training outcomes.
CSP Interventions

Pillar I

1. Basic Income Support for Sustainability (BISS)

This intervention is designed to provide a direct income support to Irish farmers to underpin their continued sustainability and viability. By supporting viable farm incomes, this intervention supports farmers in the continuation of a secure food supply. This intervention builds on the similar support provided by its predecessor, the Basic Payment Scheme (BPS).

Support is allocated based on the size of a holding (the number of eligible hectares) and the number and value of entitlements held. The financial allocation for BISS will make up the majority of the financial allocation for interventions in the form of direct payments granted.

RELATED SPECIFIC OBJECTIVES

- Article 6 (a): support viable farm income and resilience across the Union to enhance food security.

RELATED OUTPUT INDICATORS:

0.4: Number of hectares for basic income support for sustainability

RELATED RESULT INDICATORS

R.4: Linking income support to standards and good practices: Shared of Utilised Agricultural Area covered by income support and subject to conditionality

HOW IT WAS EVALUATED IN THE PREVIOUS CAP?

An equivalent intervention was not evaluated under the previous CAP (2014-2020).

HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?

No evaluations by other EU member states were found for a similar scheme.
2. Complimentary Income Support for Young Farmers (CIS-YF)

The intervention is designed to provide support to educated young farmers entering the agriculture sector in the years immediately following the young farmer setting up as head of the holding, solely or jointly. The intervention will also provide certainty in terms of the level of income support for eligible applicants for up to 5 years, which is an important factor in financial planning. Support under CIS-YF builds on the support available under the Young Farmers Scheme from 2015 to 2022. In line with the requirements under the CSP regulation for the operation of the CIS-YF, eligible applicants must first be entitled to a payment under the Basic Income Support for Sustainability (BISS). An annual payment per eligible hectare subject to a maximum of 50 hectares per eligible applicant is proposed under the Complementary Income Support for Young Farmers intervention. It is proposed to continue to grant support to farmers who have received support under the previous Young Farmers Scheme for the remainder of the period that the farmer is eligible.

RELATED SPECIFIC OBJECTIVES

- Article 6 (a): Support viable farm income and resilience across the Union to enhance food security
- Article 6 (g): attract and sustain young farmers and facilitate business development in rural areas

RELATED OUTPUT INDICATORS

- O.6: Number of hectares subject to complementary income support for young farmers
- O.6a: Number of hectares for complementary redistributive income support

RELATED RESULT INDICATORS

- R.4: Linking income support to standards and good practices: Shared of Utilised Agricultural Area covered by income support and subject to conditionality
- R.6: Redistribution to smaller farms: Percentage additional direct payments per hectare for eligible farms below average farm size (compared to average)
- R.7: Enhancing support to farms in areas with specific needs: Percentage additional support per hectare in areas with higher needs (compared to average)
- R.30: Generational Renewal: Number of young farmers setting up a farm with support from CAP
HOW IT WAS EVALUATED IN THE PREVIOUS CAP?
An equivalent intervention was not evaluated under the previous CAP (2014-2020).

HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?
No evaluations by other EU member states were found for a similar scheme.

3. Eco-Scheme
The aim of this intervention is to provide additional direct income support to farmers for undertaking actions beneficial to the climate and the wider environment. Ireland’s SWOT Analysis and Needs Assessment identified several issues relating to climate change, the unsustainable use of natural resources, and the degradation of habitats and landscapes. Eco-schemes are intended to address these needs.

Eco-schemes will be open to all active farmers in the country, or groups of active farmers. Eligible beneficiaries will be required to submit a BISS application in respect of each year of participation in the schemes. Eligible beneficiaries will have to opt in or out on an annual basis.

The scheme will be implemented through targeting of relevant “agricultural practices” and will provide the opportunity for as many farmers as possible to take up the most appropriate actions or intensity of actions on their farm. The type of agricultural practices under consideration are:

1. **Non-productive areas and landscape features**
   Increased proportion of land devoted to non-productive areas and features above the baseline required under GAEC 9.

2. **Extensive livestock production**
   Specified maximum overall stocking rate for the calendar year.

3. **Limiting Chemical Nitrogen Input**
   Specified Chemical Nitrogen usage limit for the calendar year.

4. **Planting of Native Trees**
   Planting a minimum number of native trees per eligible hectare.

5. **Use of GPS Controlled fertiliser spreader to apply chemical fertilisers**
   Application of chemical fertiliser with a GPS controlled fertiliser spreader
RELATED SPECIFIC OBJECTIVES

- **Article 6(d):** contribute to climate change mitigation and adaptation, as well as sustainable energy
- **Article 6(e):** foster sustainable development and efficient management of natural resources such as water, soil and air
- **Article 6(f):** Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes

RELATED OUTPUT INDICATORS

O.8 Number of units (ha or livestock units) for eco-schemes

RELATED RESULT INDICATORS

R.12: **Adaptation to climate change:** Share of agricultural land under supported commitments to improve climate adaptation

R.17 **Afforested land:** Share of Utilised Agricultural Area (UAA) under supported commitments for afforestation, agroforestry and restoration, including breakdowns

R.21: **Protecting water quality:** Share of Utilised Agricultural Area (UAA) under supported commitments for water quality

R.31: **Preserving habitats and species:** Share of Utilised Agricultural Area (UAA) under management commitments supporting biodiversity conservation or restoration

R.34: **Preserving landscape features:** Share of agricultural land under commitments for managing landscape features, including hedgerows

HOW IT WAS EVALUATED IN THE PREVIOUS CAP?

This scheme is a new venture, but it will draw on elements from the GLAS and Burren programmes in the previous RDP.

The ADAS (environmental and agricultural consultancy) evaluation for GLAS included an exploration of whether GLAS actions could work in the new eco schemes. Because the eco schemes are renewed on an annual basis, actions whose impacts are quickly apparent (‘short lag’) and easy to assess would be the most suitable for the scheme. Water and landscape actions meet

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both these criteria, as well as Nesting/Roosting Features and Rare Breed actions. The evaluation recommendations from the GLAS report are similarly applicable to eco schemes.

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

No evaluations by other EU member states were found for a similar scheme.

4. Apiculture Programme

The Apiculture Programme is a 5-year research programme whereby support is granted to an eligible institution in exchange for investigating threats to bee colonies and sharing findings across the apiculture sector. Concurrent goals are to combat colony loss by establishing advisory services, giving technical assistance to beekeeping groups, and collaborating with international and local apiculture organisations.

The Programme is the successor to the current 2019-2022 Apiculture Programme, ending on the 31st July 2022. The current programme follows the same objectives of research and knowledge transfer. The Programme complements the 2021-2025 All Ireland Pollinator Plan, the goals of which are ‘Healthy Honey-Bees’, ‘Better Data’, ‘Education and Knowledge Transfer’, ‘Communication, Surveillance and Bio security’, and native honeybee (*Apis mellifera mellifera*) conservation.

**RELATED SPECIFIC OBJECTIVES**

- *Article 6 (a)*: support viable farm income and resilience across the Union to enhance food security
- *Article 6 (b)*: Enhance market orientation and increase competitiveness, including greater focus on research, technology and digitalisation
- *Article 6 (f)*: Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes

Alongside the cross-cutting objective of *Article 6, 2nd paragraph*: Modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake. By farmers, through improved access to research, innovation, knowledge exchange and training.

**RELATED OUTPUT INDICATORS:**

- O.35: Number of actions for beekeeping preservation/improvement
**RELATED RESULT INDICATORS**

R.24: *Environmental/Climate Performance through Knowledge*: Number of persons benefitting from advice, training, knowledge exchange supported by the CAP related to environmental climate performance

**HOW IT WAS EVALUATED IN THE PREVIOUS CAP?**

An equivalent intervention was not evaluated under the previous CAP (2014-2020).

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

**Germany**

The Institute of Biodiversity in Germany is developing MonVIA, a “question-based monitoring of agricultural biodiversity tool” for German farmlands. It is designed as a complement to existing nature monitoring schemes. The aim of the project is a monitoring and indicator tool that is flexible, but can answer the complicated questions of cause-and-effect between environmental interventions and ecosystems. There is a tool specially being developed for evaluating agricultural impacts on pollinators. The project is using spatial simulation models to answer two key questions for pollinator-based interventions — how much insect-friendly area (e.g. flower strips, semi-natural grassland) is required for preserving insect populations and their ecosystem services, and how these areas should be distributed in agricultural landscapes both spatially and temporally to achieve optimal effects. In addition, the project is hoping to pinpoint critical thresholds of area, connectivity and longevity of insect-friendly sites in the landscape and identify optimal trade-offs between efforts and ecosystem services⁴

### 5. Sectoral Intervention in the Fruit and Vegetable Sector

The aim of this intervention is to provide support to groups of Producers wishing to be recognised as Producer Organisations (POs) in the Fruit and Vegetables (F&V) sector. It will also provide support for existing POs already in the sector, to achieve some or all of the specific objectives for the F&V sector outlined in the CSP Regulation. Currently, there are four POs in the Irish F&V sector and the share of fruit and vegetable production marketed by these POs in 2017 was over

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70%. Ensuring continued support for existing and new POs will further increase this share and should allow primary producers in the F&V sector to achieve a better position in the value chain.

Both existing and newly recognised POs will be required to submit a 5-7-year Operational Programme which will describe the interventions they will action to achieve their selected objectives. Each Operational Programme will be assessed in advance by DAFM to ensure that it will meet its objectives. In addition, POs must supply a completed survey of each active farm including details of environmental measures currently in place. This survey will be updated annually as part of each POs claim for funding for their Operational Programme. In order to provide sufficient flexibility to adapt to changing market conditions, each Operational Programme may be amended by the PO in advance of that operational year, subject to DAFM’s approval.

**RELATED SPECIFIC OBJECTIVES**

- **Article 6 (a):** support viable farm income and resilience across the Union to enhance food security
- **Article 6 (b):** enhance market orientation and increase competitiveness, including a greater focus on research, technology, and digitalisation
- **Article 6 (c):** improve the farmers’ position in the value chain
- **Article 6 (d):** contribute to climate change mitigation and adaption, as well as sustainable energy
- **Article 6 (e):** fosters sustainable development and efficient management of natural resources such as water, soil, and air.

**RELATED RESULT INDICATORS**

**R.10: Better supply chain organisation** – Share of farmers participating in supported Producer Groups, Producer Organisations, local markets, short supply chain circuits, and quality schemes

**R.11: Concentration of supply** – Share of the value of marketed production by Producer Organisations with operational programmes

**RELATED OUTPUT INDICATORS:**

**O.35:** Number of supported operational programmes

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5 https://agridata.ec.europa.eu/extensions/DashboardIndicators/AddingValue.html?select=EU27_FLAG,1
HOW IT WAS EVALUATED IN THE PREVIOUS CAP?

Evaluation on the National Strategy Operational Programme in the Fruit & Vegetable Sector

Bogue and and Hackett (2021) conducted an evaluation on the National Strategy 2013-2018 of the Sustainable Operational Programme in the Fruit and Vegetable Sector.

An Intervention Logic Model was used to establish the logical linkages between the measures selected under the National Strategy (and actions undertaken) with their operational objectives (outputs) and with the specific (results) and overall objectives (impacts) of the 2013-2018 Operational Programmes. A list of Common Evaluation Questions was provided by the EU Commission for the purposes of harmonising the evaluation process.

The beneficiaries (i.e. the POs), were involved in the evaluation both directly and indirectly. The direct involvement was by way of interview by the evaluation team. The indirect involvement of the POs in the evaluation was through the information and figures which they had provided to DAFM on an ongoing basis. A range of primary indicators as well as secondary data sources were also used in the evaluation process.

Challenges

One of the challenges in an evaluation such as this is assessing the impact of the objectives, measures and actions of the operational programmes. The complexity of the challenge relates to the fact that the impact is potentially affected by other actions and/or other external factors. The period under evaluation crosses over two national strategies (2009-2013 extended to 2017 & 2017-2022). While many of the broad objectives remained similar, there were some subtle differences which made the analysis and interpretation of the findings somewhat more challenging. Some actions implemented have impacts which crosscut a number of objectives, therefore it can be difficult to quantify the extent to which each measure was impacted. In some instances, it also was difficult to determine the exact reasons to explain why actions were not as successful as initially perceived.

Findings and Future Recommendations from the Evaluation

Considering the purpose of this intervention is to promote the role of POs, the fact that there are only two POs in Ireland is disappointing given the potential funding available to support and develop the sector. However, this may be reflective of the business model within the sector

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which is driven by the influence of the retailer sector and the role played by intermediaries between the growers and the retailers.

On top of this, both POs have a significant reliance on the use of marketing agents to achieve their objectives. Whilst they are in line with the Operational Programme, the extent of this reliance is concerning as there is limited internal expertise being fostered in these areas which creates certain vulnerabilities if the relationship between marketing agents and PO members changes in the future. To address this, it might be prudent to develop expertise within POs for some roles currently undertaken by the marketing agents. Other schemes under the RDP, such as KT and EIPs may also inform this action.

Finally, the evaluation reported that POs placed considerable focus on the need for advice and information. The POs believed that the production capacity, efficiency and knowledge of growers increased over the evaluation period and the advisory services have contributed to this. However, there was scope for further delivery on these actions as evidenced by the low level of spend on some of the actions.

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

**Slovakia**
Michalek et al (2018) conducted a study whereby they tested the effectiveness of PO support and the impact of PO membership on farm performance in Slovakia. The analysis employed Propensity Score Matching and a Difference in Differences approach using 939 observations of large commercial farms for 2006 and 2015. As such, the paper analyses the impact of the intervention during the 2007-2013 programming period.

The results show that in general belonging to a PO improves the economic performance of farms in Slovakia. However in the short term, support granted to newly established POs does not improve performance.

**Methodology**
The impact of PO membership on farm performance was measured by estimating the average difference in the outcome variables used to measure farm performance (e.g. income) between PO members (treatment group) and non-members (control group). As such, the causal effect, and thus the impact of PO membership, is the difference between these values on outcome variables. The

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variables used to measure farm performance were Gross Value Added (GVA), farm profits, farm employment, and labour productivity (GVA per annual work unit). The data used was taken from the commercial farm database which is available from the Slovak Ministry of Agriculture.

As with many counter-factual analyses, a Propensity Score Matching method was used to complement the Difference in Differences approach in order to account for the existence of selection bias in the treatment group (PO members). The propensity score can be defined as the conditional probability of receiving the treatment (PO membership) given pre-treatment characteristics. As such by combining these two methods, the impact of the intervention is the difference between comparable treatment and control farms in the period before and after the intervention implementation.

**Limitations and Policy Implications**

The fact that the analysis was conducted only on commercial farms means the results could not be extrapolated to all farms in Slovakia and elsewhere in Europe. Slovakia has a high proportion of commercial farms in comparison to the rest of Europe. Moreover, large farms may derive larger benefits from POs than small farms as they can take advantage of economies of scale generated by POs. Importantly, the limited size of the dataset that was used did not allow for measuring the differing effects on different farm types (e.g. by farm specialization or size) or by PO types (e.g. Fruit and Veg PO vs. Beef and Sheep PO).

One of the finding suggested that often POs no longer continued after they had received the support and the programming period was over. As such, the authors suggested increased detail in the criteria for programme participation. This lends to the transition from a compliance-based to a performance-based approach in the provision of supports as is set out in the upcoming CAP programme.

6. **Coupled Income Support and Protein Aid**

The aim of this intervention is to support the domestic production of protein crops in Ireland. Ireland is reliant on imports of high protein feed materials, of which there is a significant deficit nationally. Supporting the domestic production of protein crops, which could then be used to supply a greater proportion of the feed materials included in animal feed rations, would ultimately reduce Ireland's reliance on imported feed materials. Farms in Ireland have become increasingly specialised towards livestock production. This specialisation carries a higher risk when considering the impacts of market volatility, disease outbreak, climate change and long-term changes in consumer behaviour. Diversification towards protein crop production could mitigate against these
risks and result in lower carbon intensity farming, which would be beneficial to the climate and the natural environment.

Support will be provided based on the number of hectares in which protein crop production takes place. The eligible crops for support under this intervention are peas, beans and lupins, soya and mixed cropping (protein/cereal mix).

Financial support under this intervention takes into consideration the current economic returns for growing plant proteins, which are less competitive compared to the returns for native grown cereals and protein imports. In addition, it takes into consideration variabilities in production levels due to external factors such as unfavourable weather conditions.

**RELATED SPECIFIC OBJECTIVES**

- **Article 6(a):** supports viable farm income and resilience across the Union to enhance food security.

**RELATED RESULT INDICATORS**

- **R.4: Linking income support to standards and good practices:** Shared of Utilised Agricultural Area covered by income support and subject to conditionality
- **R.8: Targeting farms in specific sectors:** Share of farmers benefitting from coupled income support for improving competitiveness, sustainability or quality.
- **R.14: Carbon storage in soils and biomass:** Share of Utilised Agricultural Area (UAA) under supported commitments to reduce emissions, maintain and/or enhance carbon storage (including permanent grassland, permanent crops with permanent green cover, agricultural land in wetland and peatland)

**RELATED OUTPUT INDICATORS:**

- **O.10:** Number of ha benefitting from coupled income support.

**HOW IT WAS EVALUATED IN THE PREVIOUS CAP?**

An equivalent intervention was not evaluated under the previous CAP (2014-2020).

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

No evaluations by other EU member states were found for a similar scheme
7. Complementary Redistributive Income Support for Sustainability (CRISS)

This is a mandatory intervention under Pillar II of the CAP that is designed to redistribute CAP funds from larger farms to medium and smaller sized farms. The basic premise behind the measure is that support through the CAP should go to those who need it the most, or those who are contributing most to the CAP objectives. The political agreement on the CAP reform sets a mandatory redistribution amount equal to 10% of the direct payments ceiling. However, there is a derogation that allows Member States to take account of the redistributive effects of other elements of direct payments before deciding whether a CRISS is required, or what the extent of any measure would be.

RELATED SPECIFIC OBJECTIVES

- Article 6(a): supports viable farm income and resilience across the Union to enhance food security.

RELATED RESULT INDICATORS

R.4 Linking income support to standards and good practices: Share of Utilised Agricultural Area (UAA) covered by income support and subject to conditionality

RELATED OUTPUT INDICATORS:

O.4: Number of HA for Decoupled Direct Payment

HOW IT WAS EVALUATED IN THE PREVIOUS CAP?

No evaluation for a similar scheme was completed in the previous programme

HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?

Lithuania*

Taking Lithuania as a case study, an indicator system was established to quantify the effects of the CAP direct payments on the socioeconomic sustainability of small farms. This was done through an expert survey and a multi-criteria assessment. The Technique for Order of Preference by Similarity to Ideal Solution (TOPSIS) method was applied for the multi-criteria analysis. The

results show that, The indicator system allowed measuring the contribution of the DP system to the sustainability of farms up to 30 hectares in Lithuania.

The results indicate that the outcomes of the multi-criteria assessment of the social sustainability of farms are highly sensitive to the weighting schemes. This discrepancy can be explained by the qualitative nature of expert survey.

The application of a multi-criteria decision-making method—TOPSIS allowed—aggregating multiple indicators into a composite indicator which reflects the social sustainability of small farms. Combining the developments of the DP system and the resulting composite indicator allowed drawing conclusions on the effects of the DP system in Lithuania. It was shown the DP system contributed negatively to the diversity of local production in Lithuania in 2004–2016.

It was also found that DP support for small farms incomes was not timely, sufficient and less resilient compared to the level of rising prices and income in the general market by 2012; thereby contributing to the reduction of the social sustainability of these farms. Meanwhile, it has been established that from 2013 onwards, changing the principles of the CAP DP schemes and payment rates with more support allocated for small and young farmers, the values of the composite indicator for social sustainability has increased. This indicates improvement in the social situation of small farms in Lithuania.

Pillar II
1. Agri-environment scheme (General measure)

The aim of this intervention is to deliver a range of environmental, climate and biodiversity benefits by supporting farmers to undertake appropriate actions. The nature of the actions will be determined by the needs of the land and environs and include measures relating to water and soil.

The underpinning principle for the scheme will be ‘the right action, in the right place’, in order to ensure effective targeting of measures to deliver the proposed actions in an integrated manner on farms. Moreover, the integration of results-based actions and the locally led approach into this flagship agri-environment scheme will build on the success of the Burren Programme and the European Innovation Partnership – AGRI Groups delivered under the RDP 2014-2020.

Any eligible farmer in any part of the country will have the opportunity to participate in the scheme. Participating farmers will be required to address priority assets (e.g. critical source areas for water, priority habitats) on their farms (similar to previous agri-environment, climate measures). These will constitute the basic actions required for entry into the scheme. It is intended that these actions will be a combination of prescription-based measures (at a fixed rate
of payment) and results-based measures (where the level of payment is based on the results achieved). The scheme will take a landscape approach and may mean that farmers in areas identified by the Department as having environmental priorities will participate in specific co-operation actions. Such actions may attract higher payments depending on the actions required. See the Agri-environment scheme (Cooperation measure) below for more details.

Given the climate imperative of proposed actions under the next CAP, there will be a dedicated and attractive action for farmers under this intervention for land re-wetting. This may be one of the cooperation measures, or a separate action under this measure. Similarly, significant tree-planting measures will be included here, including agro-forestry and riparian planting. This will help deliver co-benefits, along with climate, for water quality and biodiversity. Mandatory planting of broadleaf trees on some farms may be included.

The scheme will be open to all active farmers in the country. To qualify for the higher payments, farmers must have land with higher environmental priorities. These areas are currently being defined. Access to the scheme will be determined through a ranking and selection process, and priority access will be provided to organic farmers, farmers with priority assets and farmers who agreed to undertake specific priority actions.

Payment rates will vary in line with the actions selected by the farmer and they may earn above the average payment rate if they take results-based action and achieve higher results. Farmers in co-operation areas will also be eligible to receive additional payments for farm/landscape type actions.

RELATED SPECIFIC OBJECTIVES

The Agri-Environment Scheme is in accordance with:

- **Article 6(d):** contribute to climate change mitigation and adaptation, as well as sustainable energy
- **Article 6(e):** foster sustainable development and efficient management of natural resources such as water, soil and air
- **Article 6(f):** Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes
- **Article 6(i):** Improve the response of EU agriculture to societal demands on food and health, including safe, nutritious and sustainable food, food waste, as well as animal welfare.

RELATED RESULT INDICATORS

*R.12: Adaptation to climate change:* the share of agricultural land under commitments to improve climate adaptation
**R.14: Carbon storage in soils and biomass:** The share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc)

**R.18: Improving and protecting soils:** Share of Utilised Agricultural Area (UAA) under supported commitments beneficial for soil management

**R.20: Improving air quality:** Share of Utilised Agricultural Area (UAA) under supported commitments to reduce ammonia emission

**R.21: Protecting water quality:** Share of Utilised Agricultural Area (UAA) under supported commitments for water quality

**R.22: Sustainable nutrient management:** Share of agricultural land under commitments related to improved nutrient management

**R.23: Sustainable water use:** Share of Utilised Agricultural Area (UAA) under supported commitments to improve water balance

**R.24: Sustainable and reduced use of pesticides:** Share of Utilised Agricultural Area (UAA) concerned by supported specific commitments which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides (Grass margins)

**R.31: Preserving habitats and species:** Share of Utilised Agricultural Area (UAA) under management commitments supporting biodiversity conservation or restoration

**R.33: Improving Natura 2000 management:** Share of total Natura 2000 area under supported commitments set up and financed under EAFRD

**R.34: Preserving landscape features:** Share of agricultural land under commitments for managing landscape features, including hedgerows

**RELATED OUTPUT INDICATORS:**

- **O14:** Number of ha (excluding forestry) covered by environmental/climate commitments going beyond mandatory requirements
- **O19:** Number of operations or units supporting genetic resources

**HOW IT WAS EVALUATED IN THE PREVIOUS CAP?**

GLAS Evaluation
GLAS had a dedicated, separate evaluation conducted by ADAS\textsuperscript{9}. It was the first agri-environment scheme measures at a national level, over time and on a consistent basis across a representative sample of sites. A longitudinal monitoring and evaluation programme ran until 2021. The three approaches of the evaluation were:

- (i) a longitudinal field survey of actions on a sample of approx. 320 GLAS participant farms, focusing on biodiversity and bird actions;
- (ii) a baseline and follow-up survey of attitudes to sustainable land management, covering the sample farms and a counterfactual sample of over 100 non-participants; and
- (iii) a baseline and impact analysis of actions on water quality and GHG emissions using the FARMSCOPER model at country level.

Part of the evaluation included a literature review of research on agri-environment measures. This research informed calibration of models, fieldwork protocols and farm structural and attitudinal typology.

Advisors were surveyed online to assess the value of GLAS and future training needs.

There were over 50,000 GLAS participants. The geography, farm type, and size of farms were all evaluated. This yielded valuable insight into where participants were physically concentrated and what was the financial status of participating farms.

\textit{Limitations of the methodology:}

The baseline is not a ‘true’ baseline as farms were surveyed after the GLAS contract was signed and in many cases actions were already being carried out. Thus, the ‘baseline’ analysis is more of a measure of the progress of the scheme, rather than a true picture of before-and-after.

The filed survey did not have a counterfactual. There was no measurement of ecological variables of non-GLAS farm sites. The report noted that finding and evaluating counterfactuals for environmental features

is time consuming and expensive, but modelling is a potential solution. However, the report did not expand on what type of modelling could be used, or if a model would require an infusion of robust counterfactual data in order to make these time-saving estimates, i.e. if counterfactuals will have to be evaluated regardless.

Several environmental processes have a long time-lag before the effects of an action are apparent, particularly floral cover, botanical diversity, and target mobile species population. Also, they are all a part of an intricate web of interacting variables that make clear cause and effects hard to pinpoint. Unexpected, uncontrollable factors like weather could warp the results of a field survey. For example, butterflies don’t fly in the rain. Ideally sites should be monitored for 10 to 20 years under the management regime, though this is in itself complicated by the duration of the agreement itself being limited to 5 years at present. The population of mobile species are particularly difficult to evaluate, as they are essentially being assessed on the wrong scale.

Again, the evaluation recommends ecological modelling as a solution to this problem but does not state whether the data available is sufficient to create models, given that ecological interactions are filled with unforeseen feedback loops, knock-on effects and trophic cascades. Additionally, with climate change many of these processes are altering, and existing data might not be up to date with how the ecosystem, or a species is currently behaving.

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Recommendations:

- Shifting from compensation for costs incurred and income forgone to results based agri-environment payment schemes (this recommendation has been incorporated in the new AECM)
- Have a strong baseline ready for biodiversity and farmland bird actions, which helps assess additionality and outcomes in evaluations
- Incorporate the field survey into a wider survey of mobile species
- Estimate effectiveness in the ecological modelling, especially where data is difficult to gather due to spatial and temporal constraints
- Breakdown the effectiveness on water quality and GHG at the action scale
- Link the outputs of the monitoring and evaluation to Natural Capital metrics, to capture the full impact of GLAS on the ecosystem

HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?

Wales

Wales established a separate monitoring and evaluation programme to establish a baseline for their agri-environment scheme ‘Glastir’. The primary tools to collect the data for monitoring and evaluation were field and social surveys. The field survey used random sampling of different land classes (rural, urban, different habitat types etc.) and baseline data was collected. Legacy effects of past agri-environment schemes were taken into account. Data from other relevant schemes were also used. There was also a national survey of soil microbial diversity, and satellite photography was used to assess factors like land use and primary production.

England

England developed a monitoring system to evaluate how the contribution of their agri-environment schemes to climate change adaptation\(^\text{12}\). The two objectives of the scheme were to establish a monitoring framework applicable to all future agri-environment schemes and to establish a national baseline using spatial analysis.

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The project developed monitoring objectives and adaptation indicators centred on ecosystem-based adaptations, ecosystem restoration and ecosystem-based mitigation. These indicators were centred on the following set of principles:

- Protecting important and vulnerable sites
- Reducing fragmentation and enhancing ecological networks
- Protecting refugia
- Planning for potential changes in species’ ranges and assemblages
- Restoring ecosystems
- Making species populations more resilient
- Improving water quality and reducing flood risk
- Storing and sequestering carbon
- Targeting and applying interventions in a cost-effective way

These will be monitored at a national scale using GIS and spatial datasets. At the local scale, a system of surveys, consultations and reviews would be compared to the baseline data.

Spatial data was used to create the baseline assessment. Data included flood risk, water and soil quality and habitat fragmentation, vulnerability and sensitivity. They recommend repeating the assessment every 5 years.

**Sweden**

Sweden’s agriculture management authority conducted a broad evaluation of 17 of the measures in the countries Rural Development Programme, in the context of investigating how greenhouse gases can be reduced without leading to economic losses for farmers. Moreover, the report also discusses how the government can ensure that farmers undertake the most suitable climate measures as per the different policy instruments that are made available (i.e. knowledge transfer vs. subsidies vs. changing of norms, etc.). The findings are outlined below.

**Two of the climate measures can reduce emissions more than others**

Rewetting of organic soils, and reforestation of marginal or abandoned arable land were the two most effective ways of reducing GHG emissions, but rewetting of organic soils came at a significant cost to the farmer. The conclusions of the report were similar to many other EU

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member including Ireland, whereby a better utilization of nitrogen, precision agriculture, eco-
driving and a reduction of the protein levels in fodder seem to be good measures

Farmers abstain from undertaking profitable measures
The report finds that despite many of the measures being profitable for farmers, they are not
undertaken to a sufficient extent. This can be because the costs have been incorrectly calculated,
or that the results are not representative. Another possible reason is that the farmers have
insufficient knowledge about the measures and that obtaining new information is costly. One way
of getting farmers to undertake profitable measures is to disseminate more knowledge and to
offer advice and demonstrate new technologies

Measures that have a big impact on the climate need to be promoted
Currently, the system of producing, disseminating, and using knowledge about agricultural
practices is focused on measures that are profitable to undertake and partially beneficial for the
climate. There is less focus however on measures with a large impact on the climate but that are
not as profitable. Developing measures that have a big climate benefit is also important, even if
these measures might not be profitable for the farmer. Higher levels of state intervention may
need to be considered in such a scenario.

European Commission analysis of High Nature Value Farming’ in various MSs
The European Commission, published a report on best practices for monitoring and assessing
High Nature Value (HNV) Farming (14). It assessed the different approaches of Member States
towards HNV Farming.

The definition of ‘High Nature Value Farming’ varies by state. Some use a standard definition of 3
subtypes of HNV farming:
   a. farmland with a high proportion of semi-natural vegetation (type 1),
   b. farmland with a mosaic and low intensity agriculture and natural and structural elements
      (type 2)
   c. farmland supporting rare species of a high proportion of European or world populations
      (type 3)

14 European Commission, "Working Document Practices to identify, monitor and assess HNV farming in RDPs
Estonia, Denmark and Finland use a different method using a scoring system. Farms are evaluated with a scoring sheet and are only considered a HNV farming system if they reach a particular grade.

Other Member State have very simple definitions. Czech Republic considers HNV as grasslands which occur within Natura 2000 sites. Latvia defines HNV farming areas, which overlay with grassland habitat types protected under the Habitats directive.

Member States have three main data collection approaches when monitoring HNV farming:

- Secondary data sources: usually IACS and LPIS data generated through formal CAP / RDP related monitoring requirements and data from paying agencies (e.g. RDPs in Austria, Belgium-Flanders, Finland, Hungary and Poland)
- National biodiversity and habitat monitoring programmes: National monitoring programmes of semi-natural grasslands and habitats are utilised, for example, in the RDPs of Estonia, the Spanish region Madrid, Sweden and Slovakia
- HNV-specific monitoring programmes: e.g. the German Länder, Denmark, Italy-Veneto and Romania

To monitor changes in the quality of HNV farming, the Swedish RDP used field inventories, aerial photos of permanent sample plots in all types of terrestrial environments, and in-depth monitoring of flora and fauna species of selected grassland areas. The data collection includes plants, bumblebees, butterflies, tree layer and grassland maintenance. Both monitoring programmes have a 5-year cycle and are run by the University of Agricultural Science.

2. Agri-environment scheme (Cooperation measure)

This scheme is designed as a subset of the general agri-environment climate measure to address Ireland's priority areas for biodiversity, water quality and peatland carbon storage.

This new scheme will integrate both results-based actions and a locally led approach into one scheme. The scheme has a 'landscape approach', so farmers who live in areas of high environmental priority may have specific co-operation actions set by the Department. These cooperation actions are designed to be flexible, adaptable and effective at reaching targets for biodiversity, water and climate action. A local project team will work with the farmers in these areas to achieve the target results. Collaboration will facilitate landscape and catchment level programmes, and other work above the level of a single farm, such as landslides, flooding, mountain fires, co-operative work, commonage management, management of invasive species and pest control. There will be a dedicated and attractive action for farmers under this
Evaluating the Common Agricultural Policy 2023-2027

intervention for land re-wetting. This may be one of the cooperation measures, or a separate action under this measure. Similarly, significant tree-planting measures will be included here, including agro-forestry and riparian planting.

Farmers may only sign up to one agri-environment measure (i.e. either the general measure, or the cooperation measure). Results based approaches will be used, where appropriate, and support for non-productive investments will be provided when necessary to help improve habitat scores.

RELATED SPECIFIC OBJECTIVES

- **Article 6(d):** contribute to climate change mitigation and adaptation, as well as sustainable energy
- **Article 6(e):** foster sustainable development and efficient management of natural resources such as water, soil and air
- **Article 6(f):** contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes
- **Article 5, 2nd paragraph:** Modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake

RELATED RESULT INDICATORS

**R.1 Enhancing performance through knowledge and innovation:** Number of persons benefitting from support for advice, training, knowledge exchange, or participating in EIP operational groups or other cooperation groups/actions.

**R.12 Adaptation to climate change:** Share of agricultural land under commitments to improve climate adaptation

**R.13 Reducing emissions in the livestock sector:** Share of Livestock Units under support to reduce GHG emissions and/or ammonia, including manure management

**R.14 Carbon storage in soils and biomass:** Share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc)

**R.19 Improving and protecting soils:** Share of Utilised Agricultural Area (UAA) under supported commitments beneficial for soil management

**R.19 Improving air quality:** Share of Utilised Agricultural Area (UAA) under supported commitments to reduce ammonia emission

**R.21 Protecting water quality:** Share of Utilised Agricultural Area (UAA) under supported commitments for water quality
**R.22 Sustainable nutrient management:** Share of agricultural land under commitments related to improved nutrient management

**R.24 Sustainable and reduced use of pesticides:** Share of Utilised Agricultural Area (UAA) concerned by supported specific commitments which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides

**R.32 Sustainable water use:** Share of Utilised Agricultural Area (UAA) under supported commitments to improve water balance

**R.31 Preserving habitats and species:** Share of Utilised Agricultural Area (UAA) under management commitments supporting biodiversity conservation or restoration

**R.33 Improving Natura 2000 management:** Share of total Natura 2000 area under supported commitments set up and financed under EAFRD

**R.34 Preserving landscape features:** Share of agricultural land under commitments for managing landscape features, including hedgerows

**RELATED OUTPUT INDICATORS**

- **O.14:** Number of ha (excluding forestry) covered by environment/climate commitments going beyond mandatory requirements
- **O.19:** Number of operations or units* supporting genetic resources (*units = herds)

**HOW IT WAS EVALUATED IN THE PREVIOUS CAP?**

The localised aspect of the AECM is based on the Burren Programme, introduced in 2016, which aimed to incentivise sustainable farming practices.

The Burren Programme had a standalone evaluation conducted by AECOM, which focused on the economic, social and environmental impacts of the programme\(^{15}\). As such, the evaluation emphasized taking a 'social-ecological systems' approach to evaluating the project. Given that farming and the environment are interdependent, and agri-environment schemes target both sides of the equation, they should be looked at in tandem, rather than siloing either concept. The evaluation used integrative reporting, a new evaluation approach that considers interdependency of information and processes.

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\(^{15}\) Murray, C., Maguire, C., Spillane, S. "Evaluation of the Burren Programme". AECOM, Dublin, (2020).
The ‘Integrated Capital’ approach was the framework for the evaluation. It broadens the economic definition of capital to six broad areas of the Burren ‘system’: Financial, Human, Intellectual, Natural, Social and Manufactured capital. Guidelines for this approach which informed the evaluation were the Capital Coalitions Protocol, as well as the Social and Human Capital Protocol. This approach evaluates the gains and losses in the 6 areas of capital from a specific action. For example, intensive grassland grazing may increase farmer income, which is an increase in financial and human capital. However, it reduces biodiversity, causing natural capital and therefore social capital to decrease. Financial and manufactured capital was captured in the economic assessment. Natural and manufactured capital was captured in the environmental assessment. The social assessment captured human, intellectual and social capital. Where relevant, interdependencies were explored in each section.

Methodology:
The first stage of the evaluation was establishing a Programme Intervention Logic Model. This identified programme objectives, and their expected results. Data came from the Burren Programme Team, a farm survey, and a series of stakeholder interviews. The farm survey of Burren participants was designed to fill gaps in the data which were identified in the previous programmes. A postal and online survey were provided. Most participants responded with a postal survey. The response rate was 44% and 146 responses were recorded. Both show the survey data is a representative sample size.

The qualitative data elicited from the aforementioned methods was used in conjunction with the intervention logic model to identify potential effects of the programme. Effects were then assigned either a positive or negative effect on the 6 types of capital. A matrix assessment system then classified the significance of these effects by evaluating each effect’s scale and impact as interpreted by the experts conducting the evaluation.

The results-based actions of the Burren Programme were evaluated with quantitative ‘management indicators’. A scoring system using the indicators was developed specifically for the programme and looked at aspects such as grazing status of pastures or the presence of indicator species (species which indicate high ecological integrity). Fields were scored by trained advisors from zero to ten. Payments were based on the farmer’s score. Thus the evaluation of the Burren programme was directly tied to the functioning of the scheme itself.

The actions-based aspects of the programme were evaluated with economic and environmental assessments. For example, the farm survey for the Burren programme participants assessed the practicality of these actions by asking farmers if they would have carried out these actions without the co-funding from the Burren programme.
HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?

The United Kingdom

The UK conducted an evaluation of their Catchment Sensitive Farming partnership, which was designed to encourage voluntary actions that addressed the Water Framework Directive. The partnership made significant progress in reaching water quality objectives. Given that one of the only targets the Burren Programme could not meet was water quality, it would be valuable to assess how the UK handled the issue.

The evaluation accounted for the external factors of weather, lag time between the intervention and its effects, and point source pollutions. They used a logic model which accounted for farmer behaviour and environmental factors. The evaluation also accounted for how well a measure was implemented, and how consistently it was applied.

Providing advice and engagement to farmers was the key mechanic of the CSF partnership, and was captured in the evaluation by breaking down who was receiving CSF advice, how intensively they farmed, and what habitat their farms were located within. The CSF was targeted primarily at intensive farmers located in High Priority catchment areas. The CSF also had a broader reach than the Burren Programme, with 34% of total farm area under CSF advice.

The evaluation used a regression analysis to test why some of the CSF measures were more likely to be implemented than others. Measures that were implemented the least had the highest upfront costs, whilst the most implemented measures had the lowest upfront costs. Measures that were impractical also had low uptake, even if they were low-cost.

A survey was used to evaluate participants’ understanding of water quality measures, and general attitudes towards the programme and water management. The results of the survey were used in conjunction with the on-farm evaluations and monitoring data. For example, the evaluation found that farms that had a greater understanding of how a certain measure reduces water pollution were more likely to implement that measure. The evaluation found a significant link between education and behavioural changes. The survey also asked farmers to give reasons why they did not implement a certain measure, e.g. the cost, whether they found it necessary, or if they needed more advice.

The report estimated an average lag of three years between mitigation measures and detectable water quality improvements. This is significant as the proposed Irish eco schemes may use water quality indicators as the lag is assumed to be shorter. The UK report recommends long-term evaluations and monitoring for the CSF partnership.

3. Agri-environment training

The aim of this intervention is to provide training to farmers who partake in the National Agri-Environment Climate Measure and increase farmers’ understanding of climate change and the impact farming activities have on natural resources and biodiversity at farm level. Moreover, the training should demonstrate how the agri-environment actions will address aforementioned issues, and educate farmers on how to implement the actions, equipping them with the knowledge and skills necessary to optimise delivery and ongoing management of the commitments.

It is proposed that two training courses will be provided to farmers participating in the national agri-environment climate measure. The first course is mandatory and is to be undertaken during the first full year of participation in the National Agri-Environment Climate Measure and will build on the training provided to farmers in the transitional period. The mandatory course will include:

- An introduction to the Green Architecture model under the new CAP,
- An overview of the environmental, water quality, biodiversity and climate challenges to be addressed,
- An overview of health and safety as part of good farm management,
- An overview of the agri-environment climate measure, its regulatory basis, the objectives of the scheme and funding,
- Information on the individual commitments,

The second course will be voluntary for farmers and will be offered during the course of the third full year of participation in the scheme. The voluntary course is designed to focus on management and aftercare and intends to update participants on issues that have arisen or have been identified in relation to compliance with specifications. The voluntary training may also address lessons learned to date on the implementation of the overall scheme, follow up on any issues identified at initial training and any developments on higher level environmental issues.

**RELATED SPECIFIC OBJECTIVES:**

- **Article 6(d):** contribute to climate change mitigation and adaptation, as well as sustainable energy
- **Article 6(e):** foster sustainable development and efficient management of natural resources such as water, soil and air
- **Article 6(f):** contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes

**RELATED RESULT INDICATORS**

R.1 *Enhancing performance through knowledge and innovation:* Number of persons benefitting from support for advice, training, knowledge exchange, or participating in EIP operational groups or other cooperation groups/actions.

R.12 *Adaptation to climate change:* Share of agricultural land under commitments to improve climate adaptation

R.14: *Carbon storage in soils and biomass:* The share of agricultural land under commitments to reducing emissions, maintaining and/or enhancing carbon storage (permanent grassland, agricultural land in peatland, forest, etc)

R.18: *Improving soils:* Share of Utilised Agricultural Area (UAA) under supported commitments beneficial for soil management

R.20: *Improving air quality:* Share of Utilised Agricultural Area (UAA) under supported commitments to reduce ammonia emission

R.21: *Protecting water quality:* Share of Utilised Agricultural Area (UAA) under supported commitments for water quality

R.22: *Sustainable Nutrient Management:* Share of Utilised Agricultural Area (UAA) under supported commitments related to improved nutrient management

R.23: *Sustainable water use:* Share of Utilised Agricultural Area (UAA) under supported commitments to improve water balance

R.23: *Sustainable nutrient management:* Share of agricultural land under commitments related to improved nutrient management

R.24: *Sustainable and reduced use of pesticides:* Share of Utilised Agricultural Area (UAA) concerned by supported specific commitments which lead to a sustainable use of pesticides in order to reduce risks and impacts of pesticides (Grass margins)

R.31: *Preserving habitats and species:* Share of Utilised Agricultural Area (UAA) under management commitments supporting biodiversity conservation or restoration

R.33: *Improving Natura 2000 management:* Share of total Natura 2000 area under supported commitments set up and financed under EAFRD

R.34: *Preserving landscape features:* Share of agricultural land under commitments for managing landscape features, including hedgerows
RELATED OUTPUT INDICATORS:

O.29: Number of training and advice operations or units supported by EAFRD

HOW IT WAS EVALUATED IN THE PREVIOUS CAP?

The GLAS programme relating to agri-environment interventions also had a component in it requiring the mandatory involvement of and advisor and participation in training. The ADAS evaluation of the programme also evaluated this training aspect through the administration of a qualitative survey on the part of both advisors and participants of the scheme.17

The results of the survey conducted on the advisors show that they believed their role to be of value to GLAS participants, as 90% felt that their involvement led to better agreements for participants. Advisors did report however, that they would prefer more training on climate change and guidance on how to implement actions to help reduce the impact of climate change on working farms.

The survey was also delivered to participants of the scheme who were overall happy with the training they received. Example of areas for improvement were: better advice for option uptake, better advice on how to maintain GLAS actions, advice/training to farmers when new things come out, and the need for an advisor to come to the farm to advise on actions (shouldn’t just be a desk-based exercise).

ADAS reported that an important second order effect of the provision of training was that compliance issues were reduced after farmers had attended training. The report also suggested that external organisations could help to deliver specialist and targeted training in a more efficient manner.

HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?

No evaluations by other EU member states were found for a similar scheme.

4. Straw Incorporation Measure (SIM)

The SIM aims to encourage practices that improve soil health. This is to be achieved by incentivising tillage farmers to increase soil organic carbon levels by chopping and incorporating straw from cereal crops into the ground. This will sequester carbon in tillage soils, thereby

reducing GHG emissions. The incorporation of straw will also have a positive impact on soil biology and soil workability, thereby further improving the environmental sustainability of the tillage sector.

The intervention will build on the support provided under the Straw Incorporation Measure pilot in the transitional period under the Rural Development Programme. The intervention will be a 1 year contract with automatic renewal unless opt-out is triggered by the beneficiary or by DAFM. The action of chopping and incorporating the straw is required to be carried out in the year of the application and the maximum duration is 5 years.

**RELATED SPECIFIC OBJECTIVES**

- **Article 6(d):** Contribute to climate change mitigation and adaptation, as well as sustainable energy
- **Article 6(e):** Foster sustainable development and efficient management of natural resources such as water, soil and air
- **Article 6(f):** Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes

**RELATED RESULT INDICATORS**

- **R.14 Carbon storage in soils and biomass:** Share of Utilised Agricultural Area (UAA) under supported commitments to reduce emissions, maintaining and/or enhance carbon storage

**RELATED OUTPUT INDICATORS**

- **O.13:** Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements

**HOW IT WAS EVALUATED IN THE PREVIOUS CAP?**

An equivalent intervention was not evaluated under the previous CAP (2014-2020).

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

No evaluations by other EU member states were found for a similar scheme.

### 4. Organic Farming Scheme

The Organic Farming Scheme aims to support farmers switching from conventional to organic farming systems for up to five years and aims to support them in maintaining this practice going forward. There is an acute need to increase the area of organic farmland in Ireland in order to
meet environmental and animal welfare targets, as well as meet the growing market demand for organic food. The scheme is a continuation of the previous Organic Farming Scheme 2014-2020.

A maximum of 2 years of support is provided to farmers looking to convert to organic farming, followed by three years of support for the maintenance of these practices. The area-based payment is higher for farmers in the conversion period; and thereafter farmers receive a maintenance rate. There are targeted incentives for agricultural sectors in deficit (horticulture, tillage and dairy). These operations will receive higher area-based payments.

RELATED SPECIFIC OBJECTIVES

- **Article 6(d):** Contribute to climate change mitigation and adaptation, as well as sustainable energy
- **Article 6(e):** Foster sustainable development and efficient management of natural resources such as water, soil and air
- **Article 6(f):** Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes
- **Article 6(i):** Improve the response of EU agriculture to societal demands on food and health including safe and nutritious food produced in a sustainable way, food waste as well as animal welfare.

RELATED RESULT INDICATORS

R.24: **Sustainable and reduced use of pesticides:** Share of Utilised Agricultural Area under commitments to use pesticides sustainably in order to reduce their risks and impacts

R.29: Development of organic agriculture: Share of Utilised Agricultural Area supported by the CAP for organic farming, with a split between maintenance and conversion

R.43: **Limiting antimicrobial use:** Share of livestock units under actions to prevent or reduce antimicrobial use

RELATED OUTPUT INDICATORS

O.17 - Number of hectares or number of other units with support for organic farming

HOW IT WAS EVALUATED IN THE PREVIOUS CAP?

2017 Evaluation on the Implementation of Ireland’s RDP

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The evaluation used a combination of EU common indicators and additional indicators to evaluate the progress of the scheme and analyse the farms participating in the Organic Farming Scheme. The evaluation also used external research on organic market demand within Ireland and the EU. Environmental results impacts were not measured directly in the scheme and were only hypothesised using external research.

**Analysis of farms in scheme:**
The evaluation calculated how many applications were received each year. They also calculated how many farmers in total were under the scheme, and how many extended their contract to remain in the OFS. The report calculated the share of organic farming in total utilised agricultural area in Ireland and compared the figure to other EU member states. The report then analysed the geographical distribution of organic farms and the breakdown of agricultural products being produced. Organic production in Ireland was then compared to external market research on consumer demands for organic produce.

**Environmental impacts:**
The environmental results and impacts of the scheme itself were not measured. This is because the OFS in the previous RDP was action-based. However, this meant the evaluation had a limited ability to answer the focus areas and common evaluation questions, which would require some amount of environmental monitoring and results-based indicators. In addition, without environmental monitoring data, the second objective of the programme could not be answered (Delivering enhanced environmental and animal welfare benefits).

The evaluation used external literature that listed the environmental benefits of organic farming and extrapolated these benefits to the Irish context. They did not justify why they chose the specific external research sources, nor argued why they were the most suitable sources to use. The literature review used to justify the environmental benefits of organic farming was based on research from the UK and northern Europe, not Ireland\(^{19}\). There was no peer-reviewed research on environmental impacts of organic farming available for Ireland in the literature review.

Measuring environmental benefits is a difficult task as ecosystems are complex and impacts and outcome relationships are not always easily identifiable. Neither the sources nor the evaluation touched on the significant debate of whether the environmental benefits of lower intensity organic farming offset the higher land area needed per same yield in conventionally farmed land. Placing this debate into the Irish context, i.e. answering if organic farming could conceivably

increase the demand for agricultural land, thus competing with non-agricultural land uses like forestry or wet peatland, would be a valuable addition.

**Recommendations:**

The OFS met its targets for intake and area by the year 2017, based on participants from the 2007-2013 CSP and the 2014 CSP. The only recommendation from the report was the inclusion of environmental data and indicators. Data could be sourced by matching OFS beneficiaries to Teagasc National Farm Surveys to monitor nitrogen balance and greenhouse gas emissions on farms over the lifetime of the scheme.

**Mid-Term Evaluation of the Rural Development Programme (2014-2020)**

Like the 2017 evaluation, the Indecon evaluation listed the focus areas and common evaluation questions for the scheme. The Organic Farming Scheme was evaluated with a programme logic model, as recommended by the ENRD. Each step in the logic model was evaluated using different relevant indicators.

Both the 2017 and 2019 report used the same mandatory indicators, analysed the same geographical information, and compared the Irish organic agriculture sector to other EU Member States. The report included target indicators and their progress more explicitly than the 2017 report. However, sample sizes were too small for any conclusive findings on impacts and there was no inclusion of environmental data or indicators.

**Evaluation methodology:**

The evaluators conducted a means t-test and regression analysis to compare intervention beneficiaries and non-beneficiaries. The results however, suffered from low statistical significance due to the discrepancy in sample size between beneficiaries (38) and non-beneficiaries 1684.

In addition, the report did not detail any goodness-of-fit measures other than $R^2$. Given that some of these independent variables are potentially correlated, such as labour units and farm size, there is potential for multicollinearity to skew significance values. Inclusion of goodness-of-fit measures and specifying how multicollinearity was addressed would bolster the results of the analysis. By their own admission, the results of this regression were at too early a stage to be realised.

**Recommendations:**

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Indecon recommended that consideration be given to an expanded programme of measures to support organic farming in the next programming period. The report accepted that the RDP has met key targets in this area and supporting organic farming is a wider policy issue.

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

**Czech Republic**

The Czech Republic has a long-established soil collection and testing system which has allowed them to create counterfactuals to evaluate the impact of organic farming on soil health. Soil sampling sites are uploaded to a GIS map and a means t-test compared the counterfactuals to organically farmed soil. Soil testing measured the Soil Organic Carbon content of organically farmed soil vs the counterfactual, and a system was also established to measure soil erosion. GIS analysis identified geographical features that indicate soil erosion, as well as terrain modelling data and rain erosion factor from the Czech meteorological institute.

**Sweden - FACEPA Project**

The Farm Accountancy Cost Estimation and Policy Analysis of European Agriculture is a Swedish-based project that ran from 2008 to 2011. It developed a General Costs of Production Model to evaluate the difference between costs and environmental performance in organic and conventional agriculture. This model was used in Austria, Denmark, Germany, France, Italy, the Netherlands, Poland, Sweden and the UK. All data comes from the EU Farm Accountancy Data Network (FADN). The FADN was used not only to assess economic performance, but was used to derive environmental indicators such as:

- The level of inputs (fertiliser, crop protection, purchased feed),
- Intensity of agriculture (intensification indicator, livestock units per forage area)
- Participation in agri-environmental activities as shown by monetary receipts from agri-environmental schemes
- Diversity of cropping measured with the Shannon index
- Availability of wildlife habitats as a proportion of land that is permanent grassland, woodland or fallow

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22 von Thunen Institute, Organic Research Centre, "Organic farming: implications for costs of production and provisioning of environmental services," FACEPA, Elm Farm, 2011
These indirect environmental measures are not intended to be the sole source of environmental data, but are suggested to be combined with more direct measures to give a full picture of the environmental impact of organic farming.

**Findings:**
In most countries, but especially in Germany and Italy, large regional differences in farm structure and production systems in organic farming suggest that average figures may not give an overall picture. Figures broken down by region may give a more accurate impression of the cost structures for organic farming. In general organic farms are less intensive than conventional farms, however organic farms in the analysis have less variety of crops, which may affect habitat diversity. Dairy and lowland livestock have significantly lower stocking densities.

**Sweden – Compensation for Organic Production**

This scheme encourages farmers to commit to organic farming practices by compensatory payments to farmers converting to, or already part of, an organic commitment scheme, including for both organic crops and livestock production. The evaluation looks at the impact of payments for organic commitment schemes on farm economic performance and the likelihood of leaving the scheme prematurely. It also looks at difference in the economic performance of organic and conventional farms. The findings are listed below.

**Organic Production is more Profitable than Conventional Production**

Organic farming increase the profitability of farms due to compensatory payments exceeding the costs associated with converting to organic farming. The report found that as farmers leave the scheme, they often revert back to conventional methods. Whilst the profitability of farms is shown to increase with a conversion to organic methods, this is more so the case for organic livestock producers rather than organic crop producers. The report notes the higher conversion costs for organic crop producers in comparison to organic livestock producers to be the cause of this.

**Farms converting earlier experience increased benefits**

The report found that the longer farms were conducting organic farming methods, the greater their economic profitability increased. This could be due to the initially high costs of converting to

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Evaluating the Common Agricultural Policy 2023-2027

organic farming that in fact fall over time as the equipment, training, and modes of production are already established on farms.

**Efforts to increase organic farming methods**

In order to further incentivise the uptake of organic farming methods, profitability needs to increase as a high conversion cost is associated with a higher economic risk. This could be circumvented through introducing a risk premium, increasing the payment levels in the organic commitment schemes, or increasing the mark-up in organic produce.

### 5. Areas Facing Natural Constraints (ANC)

The aim of this intervention is to provide support to farmers who farm land in areas eligible for the support, following the designation of land undertaken in 2019.

The intervention design is based on the identification of three mainland categories of land and one offshore island category of land based on differing levels of identified constraints. The categorisation of land ensures that financial support is targeted towards those with the highest levels of natural and other specific constraints.

Categories of land are as such:

- **Category 1** Land is characterised by extensive farming practices focused on livestock management on higher ground
- **Category 2** Land is characterised by extensive livestock grazing practices on lower ground
- **Category 3** Land is less extensive in nature and characterised by grazing livestock enterprises
- **Offshore Island Land** is generally small and fragmented where the potential for intensification is limited and farming is economically marginal, at best.

**RELATED SPECIFIC OBJECTIVES**

- **Article 6 (a):** Support viable farm income and resilience across the Union to enhance food security
- **Article 6 (f):** Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes

**RELATED RESULT INDICATORS**

- **R.4: Linking income support to standards and good practices:** Share of Utilised Agricultural Area (UAA) covered by income support and subject to conditionality
**R.7: Enhancing support for farms in areas with specific needs:** percentage additional support per ha in areas with higher needs

**R.31: Preserving habitats and species:** Share of Utilised Agricultural Area (UAA) under supported commitments supporting biodiversity conservation or restoration including HNV farming practices

**RELATED OUTPUT INDICATORS:**

- **O.12:** Number of ha receiving support for areas facing natural or specific constraints, including a breakdown per type of areas

**HOW IT WAS EVALUATED IN THE PREVIOUS CAP?**

**2017 Evaluation on the Implementation of Ireland’s RDP**

In the 2017 Report two main methodologies were implemented to evaluate the intervention:

1. An analysis of common and additional indicator data collected under the Area of Natural Constraints was conducted.
2. Data from the 2015 Teagasc National Farm survey was used to establish a baseline position of ANC beneficiaries non-beneficiaries in 2015 over a range a number of socio-economic and environmental indictors.

**Analysis of the indicators**

The analysis outlined the percentage of the budget that had been utilized until the point of writing. It also outlined the areas in Ireland that were designated as disadvantaged. The figure stood (and presumable still stands) at 5,155,438 hectares, which is 75% of Ireland’s total land area.

The breakdown of the different categories of land is as such:

- Some 4.075 million hectares of More Severely Handicapped Areas (inc Mountain Type Grazing’s)
- Some 1.053 million hectares of Less Severely Handicapped Areas (inc Mountain Type Grazing’s) and
- Some 0.027 million hectares of Coastal Areas with Specific Handicaps.

**Comparison of baseline data and the impact of the ANC on Beneficiaries**

The baseline data provided a reference point for comparing beneficiaries with non-beneficiaries over the lifespan of the RDP.

Following the matching exercise from 2015, 637 farms within the Teagasc NFS were paid under the ANC which equates to over 63,000 farms when the weighting factors are assigned which represents approximately 75% of the total farms surveyed. A breakdown of the types
of farms that were ANC beneficiaries was disclosed and is shown in the figure below, providing useful information on the types of farms that are more likely to avail of this subsidy.

Moreover, the level of improved competitiveness, improved nutrient management, and reduction of emissions associated with ANC beneficiaries can be inferred from the 2015 baseline data.

![Figure 2: Farm Type (%) of ANC Beneficiaries and Non-Beneficiaries](image)

**Mid-Term Evaluation of the RDP (2014-2020)**

The evaluation review of the ANC intervention consisted of a survey collected and analysed by Indecon themselves, as well as quantitative analyses of National Farmer Survey and DAFM indicator data.

**Survey Data**

The impact of ANC was captured from the views of farmers in relation to the potential outcomes if the ANC payment was not available. For example, 27% of respondents believed that the land would no longer be farmed if ANC assistance was not available. Moreover, the views of farmers with regards to their perceptions of the impact associated with ANC assistance were elicited from survey responses. Farmers suggested that that the ANC support assists in improving farm viability and enhancement of biodiversity.

**Quantitative Analysis**
A difference of means t-test was completed on NFS data and identified that ANC beneficiaries differ significantly from non-beneficiaries. Generally speaking, ANC beneficiaries have lower values for the means t-tests variables, for example on farm family income and farm gross output, indicating that due to their geography, these farms are less economically viable.

A fixed effects regression analysis for farm output and productivity was also conducted which suggested a positive relationship between receipt of ANC payments and output and farm productivity. Importantly, this was not a counterfactual analysis (the findings are thus less robust), due to the fact that 70% of the NFS sample received ANC payments. Additionally, the impact of ANC supports was assessed on CAP impact indicators viz. Agricultural Entrepreneurial Income, Agricultural Factor Income, and Total Factor Productivity. The FE regression analysis suggested a positive relationship is suggested between all three of the aforementioned CAP impact indicators but caution was again expressed at inferring causality due to the lack of a counterfactual analysis.

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

**Romania**

In 2017, the consulting company ACZ consulting conducted an evaluation on behalf of the Romanian government, of the interventions and actions funded during the 2015-2017 period through the Romanian Rural Development Programme (NRDP) 2014-2020, concerning mountainous areas. Mountainous areas are of course constraining for agricultural viability and are thus a suitable example relating to Ireland’s ANC interventions.

The methodology for this evaluation included a mix of methods, combining literature reviews, the collection and analysis of administrative data, questionnaire-based surveys, case studies, quantitative analysis of the indicators, development of a logic model, and a focus group.

**Literature review**

This preliminary analysis was used to gain a background understanding of the context. The criteria for selecting documents included in the literature review were:

i. the availability
ii. the relationship with the evaluation topic and

iii. the reference to sources of high scientific reputation (scientific articles / evaluations / public policy papers).

**The collection and analysis of administrative data**

The analysis of administrative data had at least four purposes:

1. selecting the sample of beneficiaries for questionnaires and case studies.
2. during the first stage of the evaluation, analysing the measures and the program implementation, on the basis of which the field research was planned and prepared.
3. Defining the discussion themes and directing the discussions during the interviews with the key actors
4. Carrying out a comparative analysis per types of area (mountain area, area with significant constraints or other specific constraints, normal area), taking into account the evolution of the number of beneficiaries and of the types of areas subject to interventions (2015, 2016, 2017 campaigns)

**The questionnaire-based survey**

The questionnaire survey was applied conducted on a representative sample of beneficiaries of the intervention.

**Case studies**

The evaluation team performed five case studies on projects located in mountainous areas, funded through NRDP 2014-2020. The case studies were conducted as field visits and they were concluded with individual analysis reports.

**Focus Group**

The focus group was used to corroborate and expand on the qualitative data collected through the questionnaires, case studies and interviews. The meeting was attended by the representatives of public institutions involved in the management and implementation of the NRDP and by other key actors representative for the development of mountainous areas.

**Logic Model**

A logic model was used assess the changes in the intervention logic and to verify the modifications and updates made in the different versions of the NRDP. The elaboration of the logic model was based on identifying a causal link between the inputs and outputs of a programme / intervention.

The reconstruction of the intervention logic involved the analysis of all the measures financed through the NRDP 2014-2020. The second level of the analysis related the output indicators to the relevant measures implemented. The third level of the logic model identified associations
between intervention areas and the related result / target indicators. The last step in the logic model was to tie the impact evaluation together by identifying causal links between the pre-determined priorities set out in the NRDP, and the interventions.

**Quantitative Analysis Methods**
A territorial analysis was conducted, correlating the monitoring data regarding the interventions in mountainous areas with the indicators available on the relevant database.

**Findings**
The report found that for mountain areas, the NRDP experienced uneven implementation, as some measures were more attractive to beneficiaries than others. This is due in part to exogenous factors such as administrative burdens, as well as endogenous factors such as the poor communication strategy implemented by the Ministry of Agriculture. The report recommended that increased levels of resources should be put into the dissemination of information in relation to the objectives and funding possibilities of the NDRP. It also recommended promoting higher levels of training activities among beneficiaries of certain measures.

### 6. Producer Organisations in the Beef and Sheep Sector
The aim of this intervention is to provide support to groups of producers wishing to be recognised as Producer Organisations (POs) in the Beef and Sheep sectors. The rationale for support under this intervention is to encourage the adoption and development of Producer Organisations in the beef and sheep sector; and to assist primary producers in strengthening their position in the supply chain.

Support in Year 1 is intended to be provided for advisory costs and for administrative functions. Support in Year 2 and 3 will be provided for administrative functions only. The support for advisory costs covers a contribution for the engagement of facilitators for legal and business advice. It is proposed to open a call for facilitators and to provide training to these facilitators so they can provide advisory services specific to the establishment of producer organisations in the beef, sheep and possibly other sectors. Support provided for administrative functions will contribute towards administrative costs including the engagement of administrative human resources and the purchase of relevant technology (hardware/software).

**RELATED SPECIFIC OBJECTIVES**
- **Article 6 (a):** Support viable farm income and resilience across the Union to enhance food security
- **Article 6 (b):** Enhance market orientation and increase competitiveness, including a greater focus on research, technology, and digitalisation
- **Article 6 (c):** Improve the farmers’ position in the value chain

**RELATED RESULT INDICATORS**

**R.10: Better supply chain organisation:** Share of farmers participating in supported Producer Groups, Producer Organisations, local markets, short supply chain circuits, and quality schemes

**RELATED OUTPUT INDICATORS:**

**O.28:** Number of supported producer groups/organisation

**HOW IT WAS EVALUATED IN THE PREVIOUS CAP?**

An equivalent intervention was not evaluated under the previous CAP (2014-2020).

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

A general evaluation of the effect producer organisations has on the performance of farms is outlined in the *Sectoral Intervention for the Fruit and Vegetable Sector* section of this document.

### 7. Suckler Carbon Efficiency Scheme

The aim of this intervention is to provide support to beef farmers to improve the environmental sustainability of the national beef herd. The scheme aims to build on the gains delivered thus far through the Beef Data and Genomics Programme (BDGP) and the Beef Environmental Efficiency Programme (BEEP) by improving the genetic merit of the Irish suckler herd and reducing the greenhouse gas intensity of Ireland’s beef production.

There are four mandatory actions within the Scheme and all four of these actions must be undertaken by the participant in each year of the contract. It is proposed to operate the scheme on a 5-year contract basis and the four actions include:

- a) A Replacement Strategy
- b) A Genotyping Programme
- c) A Weighing Measure
- d) Data Recording

**RELATED SPECIFIC OBJECTIVES**

The Suckler Carbon Efficiency Programme is in accordance with:
• **Article 6(d):** Contribute to climate change mitigation and adaptation, as well as sustainable energy.

**RELATED RESULT INDICATORS**

**R.13: Reducing emissions in the livestock sector:** Share of Livestock Units under support to reduce GHG emissions and/or ammonia, including manure management

**RELATED OUTPUT INDICATORS:**

**O.14:** Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements

**HOW IT WAS EVALUATED IN THE PREVIOUS CAP?**

2017 Evaluation on the Implementation of Ireland’s RDP

The BDGP was the equivalent of the Suckler Carbon Efficiency Programme and is thus what is referred to here.

The report listed the relevant focus areas and common evaluation questions:

- **FA 5D:** To what extent have RDP interventions contributed to reducing GHG and ammonia emissions from agriculture?

The objective of the scheme was to collect and compile data on maternal traits of suckler cows from commercial farms into a breeding index (which ranks the efficiency of animals on a star-based system, with 5 star being the most efficient). Farmers can therefore select robust and resource efficient suckler cow replacements with the index. There were four indicators that were mandatory to collect to measure the impact of the intervention and they were:

- Total public expenditure
- Total area (ha)
- Physical area supported (ha)
- No. of contracts supported (ha)

*These included both progress from 2016 to 2016, and 2023 targets.

Moreover, there were a number of additional indicators, that were measured if the data was available, in order to complement the existing suite of mandatory indicators.

The carbon navigator management scheme that was a requirement of the programme was not evaluated as it was too early to have data on results and impacts.

*Methods:*
The report first analysed the common and additional indicators mentioned above. The report predicted possible greenhouse gas emissions from the scheme using external research on genetics and breeding strategies in cattle. These predictions came from a technical report by AbacusBio and the Irish Cattle Breeding Federation which quantified the improvements in CO₂ emissions per unit of genetic progress in the Irish Maternal Replacement and Terminal beef cattle indexes\textsuperscript{25}. Increased survival rates, growth to slaughter, carcass muscling (conformation), and decreased feed inputs, carcass fat, calving interval, and age at maturity were all predicted to reduce greenhouse gas intensity.

The impacts and results of the scheme on farmers was measured using National Farm Survey data. A counterfactual and baseline was established for participants and non-participants. Baseline and counterfactual data was taken on the following factors:

- Nutrient management, including nitrogen balance per hectare
- Average greenhouse gas emissions per square hectare
- Farm type (dairy, sheep, cattle, mixed etc.)
- Herd count

The Carbon Navigator was expected to collect the necessary data to examine environmental indicators for the scheme. While all farms within the BDGP have a significantly lower nitrogen surplus than those not in the scheme, distilling the data to cattle farms only shows that non-beneficiaries of the BDGP have a slightly lower surplus than those within the scheme.

Greenhouse gas emissions per hectare on a farm were calculated using Intergovernmental Panel on Climate Change coefficients and conventions. Agricultural emissions categories include methane (CH₄) emissions from enteric fermentation by ruminant livestock, methane and nitrous oxide (N₂O) emissions from the production and storage of livestock manures; and nitrous oxide emissions resulting from the application of manures and synthetic fertilisers to agricultural soils.

Secondary effects of the BDGP on farmer profitability and economic performance were measured with market based grossed margin per hectare. This is gross margin excluding grants and subsidies, where gross margin is defined as gross output less direct costs.

**2019 IGEES Spending Review\textsuperscript{26}**

\textsuperscript{25} C.D. Quinton et al., “Prediction of effects of beef selection indexes on greenhouse gas emissions,” *Animal*, vol. 12, no. 5, pp. 889-897, 2016. doi.org/10.1017/S1751731117002373

\textsuperscript{26} DAFM Spending Review Paper “Beef Data and Genomics Programme” Version: May 2019
A spending review was conducted on the BDGP in 2019. The initial part of the review follows the principles of the Public Spending Code whereby a logic model is created to depict a linear process towards the impact of an intervention.

The first stage of creating a logic model involves quantifying the inputs of the intervention as well as the key actions of the BDGP required to influence farmer behaviour. Next the outcomes are considered including the profitability, productivity, efficiency and sustainability of the suckler herd. This enables the evaluation of the impact of the BDGP compared to the intended objectives of increased genetic merit of the national suckler beef herd and lower GHG emissions. Below is an example of a logic model for this intervention.

![Figure 3: Example of a Logic Model used to evaluate an intervention.](image)

Data for specific variables were collected to test chosen indicators including financial based data and subscription rates for efficiency and animal performance indicators for effectiveness. Additionally, case studies were conducted to illustrate the experience of the BDGP at farm level. The implications of these outcomes were then discussed in terms of impact.

The analysis was desk-based, and data was co-ordinated by the Economics and Planning Division and gathered from Divisions within DAFM including Livestock Breeding, Production and Trade, and Meat and Milk Policy, and externally through the Irish Cattle Breeding Federation (ICBF). This data was then quantitatively analysed to identify the key trends and supplemented with qualitative insight through case studies from key informants on the challenges of delivering the Programme.

The key indicators examined aimed to quantify the impact of the programme in terms of efficiency and effectiveness. To achieve this, specific data was required that included expenditure and administrative data related to the participants training and compliance as well as animal performance related indicators to track the impact of the BDGP since its introduction in 2015. The animal performance indicators included the following:
• Number of hectares covered by the BDGP herd
• Number of beef animals within the programme
• Breakdown of these animals into the €uro star classification system
• Duration of the calving interval
• Number of calves per cow per year
• Age of first time calvers
• Weights (both cow and weanling)
• Weaning efficiency
• Replacement index to identify profitability
• Change in the length of grazing season

As well as this External research was used to inform the study on the effects on GHG emissions as a result of genetic improvement arising from the BDGP. Using reliable academic sources provided robust and peer reviewed estimations that enabled the forecasting of the impact of the BDGP on GHG emission levels in the long term, when the cumulative effects of the intervention are realised.

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

**France**

Although there is no directly analogous scheme in the other member states, France provides a case study for initiatives for climate transition in the beef and dairy sectors.

The French National Low Carbon Strategy was first adopted in 2015. It is the national roadmap for carbon neutrality by 2050 that aims to reduce GHG emissions from agriculture by 46%. The main focus of agricultural emission reductions is through reductions in nitrous oxide from nitrogen fertilisers and methane from livestock effluents.

The CAP’2ER is the French equivalent of Ireland’s Carbon Navigator. It calculates a farm’s carbon footprint as the total balance of its GHG emissions and carbon removals. Like the Carbon Navigator, it also calculates nutrient leakage and ammonia emissions, as well as impacts on biodiversity.

Unlike the Carbon Navigator, the CAP’2ER has a wider spread of mitigation practices that either reduce GHG emissions or increase soil sequestration. GHG reducing activities include pasture management and fertiliser applications, as well as power and equipment, increased productivity

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and the removal of unproductive animals. Increased sequestration activities include agroforestry and cover crops.

France also operates an EU LIFE project called LIFE Beef Carbon, which use the CAP’2ER as a tool to reduce GHG in French cattle farms. The project offers consulting support to farmers to calculate their carbon balance, set up an action plan, train advisers, and support on-farm investment.

To validate the emission reductions, the French developed a methodology called CARBON AGRI which monitors and calculates a farm's carbon efficiency (kg CO2/kg of production). However, baseline and monitoring data for the tool is time consuming and costly to collect. One solution is to increase data collection to a large sample size, and then use this data to create accurate default calculations. Existing policy requirements and farm records are also a source of data. Network solutions and Application Programming Interfaces (API) are being developed to share data between organisations. APIs are also elaborated and tested with automatic data collection through sensor platforms like cattle collars or eartags.

8. Suckler Carbon Efficiency Scheme Training

Participants in the Suckler Carbon Efficiency Scheme will be required to complete training modules in the first and second years of the scheme aimed at assisting them in effectively completing the necessary actions within the scheme. The associated training will:

- outline how the actions undertaken as part of the Suckler Carbon Efficiency Scheme will address the challenges that the scheme is designed to address,
- educate farmers on how to appropriately implement the actions; thereby equipping them with the knowledge and skills necessary to optimise delivery and continue the ongoing management of the commitments undertaken; as well as to facilitate the implementation of high welfare practices.

The mandatory course, is accordingly designed to include:

- An introduction to on-farm practices including weight recording
- Information on the process of genotyping and the development of a replacement strategy for improved genetic merit and the importance of performance measurement for breeding decisions.
- Information on the individual commitments as well as record-keeping, delivery timelines, controls, inspections and sanctions
- A module on livestock handling safety to reduce instances of on-farm accidents/fatalities.
RELATED SPECIFIC OBJECTIVES

- **Article 6 (d):** Contribute to climate change mitigation and adaptation, including by reducing greenhouse gas emissions and enhancing carbon sequestration as well as promote sustainable energy.
- **Article 6.2:** Those objectives shall be complemented and interconnected with the cross-cutting objective of modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake by farmers, through improved access to research, innovation, knowledge exchange and training.

RELATED RESULT INDICATORS

*R.1: Enhancing performance through knowledge and innovation:* Number of persons benefitting from advice, training, knowledge exchange, or participating in EIP operational groups supported by the CAP in order to enhance sustainable economic, social, environmental, climate and resource efficiency performance

RELATED OUTPUT INDICATORS:

*O.33:* Number of supported training, advice and awareness actions or units

HOW IT WAS EVALUATED IN THE PREVIOUS CAP?

2017 Evaluation on the Implementation of Ireland’s RDP

The mid-term review specifically evaluated the training delivered in support of the BDGP. After an open tender, Teagasc were awarded the contract to develop the training programme to be delivered alongside the BDGP. Teagasc produced a report based on the training course feedback sheets completed by all attendees at the general training courses. A 5% (1,223) sample of the feedback sheets were analysed. The feedback sheets contained seven different questions with multiple choice answers and a final comment section. The questions themselves related to actual delivery of the training itself, whilst the comments section gave participants the opportunity to provide comments on how they would improve the content or the delivery of the training.

The feedback from the respondents of this mandatory training showed that the vast majority of respondents found the training to be useful for their understanding of what is expected of them under the scheme and how they could translate these learnings into practice.
Mid-Term Evaluation of Ireland’s RDP (2014-2020)

This review did not focus heavily on evaluating the training delivered under the BDGP apart from documenting some data relating to the levels of training delivered. The variables that were documented were:

- Number of training days given
- Number of training participants
- Number of Carbon Navigators completed (mandatory aspect of BDGP training)

These values can be offset against the planned output for the end of the programme in order to discern whether or not the required levels of training are being met.

HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?

No evaluations by other EU member states were found for a similar scheme.

9. Dairy Beef Welfare Scheme

The aim of this intervention is to provide support to farmers who undertake actions to improve the viability of male dairy calves in locally based production systems. One of the key indicators of animal welfare is liveweight. By supporting the weighing of dairy beef animals in the first year of their lives, farmers will be in a position to take necessary actions to ensure these animals reach target liveweights at different ages. Failure to reach target liveweights for age can be indicative of underlying health and welfare issues. The weighing of animals at appropriate times can provide the necessary information to farmers to help mitigate against a welfare risk to these animals.

RELATED SPECIFIC OBJECTIVES

- Article 6 (i): Improve the response of EU agriculture to societal demands on food and health, including safe and nutritious food produced sustainably, food waste, as well as animal welfare.

RELATED RESULT INDICATORS

R.44. Improving Animal Welfare: Share of livestock units covered by supported action to improve animal welfare.

RELATED OUTPUT INDICATORS:

O.14: Number of hectares (excluding forestry) or number of other units covered by environment/climate commitments going beyond mandatory requirements
HOW IT WAS EVALUATED IN THE PREVIOUS CAP?
An equivalent intervention was not evaluated under the previous CAP (2014-2020).

HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?
No evaluations by other EU member states were found for a similar scheme.

10. Sheep Improvement Scheme
The aim of this intervention is to build on the progress made by the Sheep Welfare Scheme (SWS) in the 2014-2020 RDP by providing support for actions that improve animal health and welfare in the sheep sector. The Sheep Improvement Scheme will contribute to improved welfare through targeted interventions in lameness control, parasite control, flystrike and appropriate supplementation.

Participating farmers will choose to undertake two actions altogether, one action from Category A and one action from Category B, appropriate to whether they have a lowland or a hill flock. The following is the list of actions that can be taken:

- Lowland Flock Category A: Lameness Control or Mineral Supplementation Ewes Post Mating or Parasite Control (Faecal Egg reduction test)
- Lowland Flock Category B: Genotyped Ram or Scanning and recording of results or Flystrike Control
- Hill Flock Category A: Mineral Supplementation Ewes Post Mating or Meal Feeding Lambs Post Weaning or Parasite Control (Faecal Egg reduction test)
- Hill Flock Category B: Genotyped Ram or Scanning and recording of results or Mineral Supplementation Lambs Pre-weaning

Hill flocks may not choose both Mineral Supplementation Pre-weaning and Meal Feeding of Lamb’s Post Weaning. All farmers must complete the Genotyped Ram action once during the intervention period. Famers with a flock size greater than 150 breeding ewes must complete this action twice over the course of the scheme. In all other years an alternative action from Category B must be competed. In the first year of application, all farmers must indicate the year(s) in which they will perform the Genotype Ram action.

RELATED SPECIFIC OBJECTIVES
- Article 6(i): improves the response of EU agriculture to societal demands on food and health, including safe and nutritious food produced in a sustainable way, food waste, as well as animal welfare.
RELATED RESULT INDICATORS

R. 44. *Improving animal welfare*: Share of livestock units covered by supported action to improve animal welfare

RELATED OUTPUT INDICATORS:

O.18: Number of Livestock Units covered by support for animal welfare, health, or increased biosecurity measures

HOW IT WAS EVALUATED IN THE PREVIOUS CAP?

Mid-Term Evaluation of Irelands RDP (2014-2020)

One of the key indicators set for assessing the impact of this scheme is percentage of agricultural holdings supported. The 2019 evaluation found that this figure had remained steady at 14% since the beginning of the programme. Whilst sheep farmers generally have lower incomes than farmers of other animals, data on output and productivity for sheep farms suggested improvements in productivity and gross output for sheep farms post 2016 after a period of marginal decline since 2014. This data is elicited from the National Farm Survey.

*Figure 4 – Mean Agricultural Output and Productivity for Sheep farmers (2014-2017)*
HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?

Germany

The Thünen-Institute (federal agency in Germany responsible for research for Rural Areas, Forestry, and Fisheries), evaluated the animal welfare interventions for five federal states in Germany during the programming period 2007 – 2013.

The framework adopted two separate but interconnected analyses:

1. A bottom-up analysis of animal welfare effects of individual measures which identifies effects of individual interventions by using surveys
2. A top-down approach which uses specific indicators (such as mortality) to find out the influence of each intervention.

First, the evaluator carried out a literature review to compare the specifications included in the RDP measures (e.g. floor space per animal legislated for), with the corresponding research findings from the literature (space necessary to carry out natural behaviour).

Information was collected in the form of surveys to gather information on the actions farmers took in response to the interventions animal welfare payments (m14) and investment in physical assets (M04.1). Information at the individual animal level is resource intensive to acquire. As such, information at this level was only collected for pigs and egg laying hens. Nonetheless, the survey responses are considered applicable to animal welfare interventions broadly speaking.

The written survey showed that the administrative implementation element of the measure was successful, which was apparent based on the farmers responses of satisfaction with the information provided by the ministry (concerning pigs and laying hens) and the trainings received (only relevant for pigs). Suggestions for improvements include simplifications of the forms related to the application/selection procedure, as well as, forms concerning animal wellbeing used by farmers and veterinary staff. Additionally, suggestions have been made to better define a number of indicators (i.e. mortality and intact tail).

There were further observations made although they were specific to interventions on pig and egg laying hen farms.

Sweden

The animal welfare scheme in Sweden consists of three welfare measures. Additional welfare measures for sheep, additional welfare measures for sows and additional claw health measures for dairy cows. The evaluation was intended to examine whether the measures have contributed to increased animal welfare, and to gauge the level of uptake in the scheme. Data was collected via a questionnaire of beneficiaries to the scheme, analysis of additional indicators available via agricultural consultancy firms, and evaluations made by experts in the field.

Increase Administrative Burden on Previous Programmes

Respondents to the questionnaire were happy with how the application process was managed, reporting few difficulties in retrieving the funding. Most participants however reported an increase in administration required in relation to previous iterations of the same scheme.

Fit for purpose measures

Data from the agricultural consultancy firms reported a distinct improvement in claw health in animals since the intervention was introduced. In terms of sheep welfare, no health based indicators were available but survey responses reported positive feedback for the impact of this intervention.

Recommendations included implementing a greater number of indicators which capture changes in animal welfare, for example shoulder lesions in cows. The report also suggested that testing for parasites could be a precondition for receiving subsidies under the sheep welfare scheme, and that reporting claw health could be made mandatory.

11. European Innovation Partnership Operational Groups (EIP)

The aim of this intervention is to provide support to a range of actors in the agricultural sector who are looking to come together to form Operational Groups (OGs) to develop and test innovative solutions to particular challenges identified in the agri-food sector. This approach will build on the success of the EIPs delivered under the RDP 2014-2020 in addressing the innovation gap between research and best practice, in encouraging innovative approaches, and in disseminating key findings.

This intervention will be structured around competitive calls for proposals for innovative projects related to specific challenges. Support will be structured around two streams:

- **Stream A**: EIPs aimed at addressing wider competitiveness, modernisation and animal health and welfare challenges in the sector.
- **Stream B**: EIPs aimed at addressing areas related to environmental, biodiversity, climate change challenges.

To maintain flexibility and the support for the development of innovative, 'bottom up' ideas, calls for proposals will be initiated by DAFM. It is proposed that there will be dedicated calls for proposals including the focusing on the uptake and utilisation of digital tools and technologies at farm level, the rearing of pigs with intact tails and the integration and development of the bioeconomy at farm level. Competitive calls for proposals will be structured around the following three phases:

- **Phase 1** – An initial call for the submission of ideas/proposals to be evaluated by an expert evaluation committee.
- **Phase 2** – Successful Phase 1 applicants will then be invited to develop their initial proposals from Phase 1 and submit a fully detailed Operational Group Plan which will be evaluated by an expert evaluation committee. The costs involved in developing these Operational Group Plans will be covered under this intervention.
- **Phase 3** – Successful Phase 2 applicants will move forward to full implementation of their project. Implementation costs for these projects will be covered under this intervention.

Support for projects will be structured around the competitive process outlined above. The call for proposals may be on the basis of identified themes. Successful projects must form an Operational Group to implement innovative approaches to challenges linked to the Specific Objectives outlined in draft CSP regulation.

**RELATED SPECIFIC OBJECTIVES**

Given the nature of EIPs and our approach to implementation, this intervention has the potential to address all the general objectives set out in Article 6, as well as contributing to the cross-cutting objective set out in Article 5.

**RELATED RESULT INDICATORS**

**R.1 Enhancing performance through knowledge and innovation**: Number of persons benefitting from advice, training, knowledge exchange, or participating in European Innovation Partnership (EIP) operational group projects supported by the CAP in order to
enhance sustainable economic, social, environmental, climate and resource efficiency performance.

R.27: Environmental/climate performance through: Number of persons benefitting from advice, training, knowledge exchange, or participation in European Innovation Partnership (EIP) operational group projects supported by the CAP related to environmental-climate performance

RELATED OUTPUT INDICATORS:

O.1: Number of European Innovation Partnership (EIP) operational group projects

HOW IT WAS EVALUATED IN THE PREVIOUS CAP?

Mid-Term Evaluation of Ireland’s RDP (2014-2020)

As the EIPs were only just being established at the time of this evaluation, it was not possible to evaluate their effectiveness. Rather, Indecon conducted a financial and administrative evaluation of the scheme. They listed the financial inputs of the scheme, i.e. how much public expenditure had been given to each project so far. The amounts and rates for support were based on the cost given in the successful proposals, which are reimbursed on the basis of returns/receipts received from the Operational Groups (OGs). The number of applications and the success rate was also listed.

The mandatory indicators for the scheme were as follows:

- No. of EIP groups supported
- Number of partners in EIP groups, broken down by role (e.g. farmers, NGOs, advisors)

The target of EIP groups increased from 10 to 22 since the initial ex ante evaluation. This was because smaller, locally-led groups were introduced as part of the scheme. The objectives and relevant focus areas of three EIPs were also briefly evaluated (locally-led projects, Hen Harrier Project, Freshwater Pearl Mussel project).

HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?

European Commission

The DG for Agriculture and Rural Development conducted an evaluation support study on the CAP’s impact on knowledge exchange and advisory activities. The full report is yet to be

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published but the executive summary makes specific reference to EIPs and recommends how the effectiveness and impact of this intervention can be improved. They are as follows:

- Ensure that EIPs are well known and well-integrated in Member State Agricultural Knowledge and Innovation Systems (AKIS)
- Improve innovation support services by having a dedicated group of advisors helping individual grassroots ideas into innovation projects. Advisors could act as innovation brokers but also ensure project participants are well-coordinated and networked.
- Improve the information flows between farmers and their contacts (i.e. advisors or stakeholders such as cooperatives). The use of several communication channels would be important here, for example peer-to-peer events and social media outreach.
- Identify and address the barriers which currently discourage farmers from actively being involved in EIPs. For example, ensure that risk management measures do not disincentivise farmer involvement.
- Encourage the participation of farm advisors in Operational Groups. It is highly recommended as they are key for upcoming information flows and facilitation within the group. Financial support should be offered for their participation.
- Put more emphasis on outputs and expected results than only on financial issues and compliance with eligibility rules in the monitoring.
- Identify and record the results and impacts of Operational Groups on changes in farming practice and on the dissemination of these results.

**Sweden**

Jordbruksverket, the agricultural management authority conducted an evaluation of their EIP scheme, which provides supports in two forms. Firstly support can be granted for forming an innovation group, and secondly for a project with full funding. Problems they faced with implementation, with corresponding suggestions for solutions are outlined below.

**Group formation and innovation projects:**
The evaluators identified the possibility of applying for group formation support to be a great strength but felt like this aspect of the scheme could be improved. To increase accessibility in this regards, they suggest making the requirements for availing of the scheme to be more flexible and

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decision criteria for access to the scheme to be made publicly available. ‘Resource-weak’ actors should also be targeted to enhance the inclusivity of the scheme.

**Processing of applications**
The e-application process is considered to be demanding and inefficient. For example, late payments through the scheme caused problems in certain instances. Improvements can be made to make the internal processing at the Board of Agriculture and the innovation support more effective.

**Roles and coordination**
Considering the number of different state actors and agencies involved in administering the scheme, i.e. the Board of Agriculture, the Advisory Select Committee and the Innovation Support Groups, delivery of the scheme is susceptible to inefficiencies due to bureaucratic processes. Continued efforts to decrease this bureaucratic friction will improve the delivery of the scheme.

**Link to other innovation initiatives**
Information about the delivery of the scheme, both in its pitfalls and successes, has not been disseminated widely enough to other related agencies. Experiences from EIP-Agri and other similar innovation programs should be incorporated to develop synergies and ensure that innovations reach the market.

**Planned evaluation of effects**
The current evaluation goals and criteria for measuring the impact of the scheme are considered too broad and vague to effectively gauge contributions to innovation goals. Development of the evaluation criteria and higher levels of data collection are required.

### 12. On-farm Capital Investment Scheme

The aim of this intervention is to provide support to farmers looking to invest in capital projects on their farms, specifically addressing a need to increase environmental efficiency in the agricultural sector through on farm investment and the adoption of new technologies. It also addresses the need to support young farmers in accessing finance so they are in a better position to invest in and develop their farm enterprise; and the need to improve animal health and welfare, and farm safety on farm.

This scheme will be implemented, similar to TAMS II, utilising a tranche-based system, operating in rolling tranches. Ranking and selection will be included. Grant aid will be provided for investment in the following categories:

- Environmental investments
• Animal Welfare,
• Nutrient Storage,
• Tillage Farmers,
• Young Farmers,
• Women Farmers
• Organics,
• Farm Safety

RELATED SPECIFIC OBJECTIVES

The On-farm Capital investment scheme is in accordance with:

- **Article 6(a):** Support viable farm income and resilience across the Union to enhance food security
- **Article 6(b):** Enhance market orientation and increase competitiveness, including a greater focus on research, technology, and digitalisation
- **Article 6(d):** Contribute to climate change mitigation and adaption, as well as sustainable energy
- **Article 6(e):** Foster sustainable development and efficient management of natural resources such as water, soil, and air
- **Article 6(f):** Contribute to the protection of biodiversity, enhance ecosystem services and preserve habitats and landscapes
- **Article 6(g):** Attract and sustain young farmers and facilitate business development in rural areas
- **Article 6(h):** Promote employment, growth, gender equality, social inclusion, and local development in rural areas, including bio-economy and sustainable forestry;
- **Article 6(i):** Improve the response of EU agriculture to societal demands on food and health including safe and nutritious food produced sustainably, food waste as well as animal welfare.

RELATED RESULT INDICATORS

**R.3: Digitising agriculture:** Share of farms benefitting from support to digital farming technology through CAP – estimate 5,000 farms

**R.9: Farm modernisation:** Share of farms receiving investment support to restructure and modernise, including to improve resource efficiency – estimate 20,000 farms

**R.15: Green energy from agriculture and forestry and other renewable sources:** Supported investments in renewable energy production capacity, including bio-based (Megawatt) Estimate – 5,000 investments

**R.16: Investments related to climate:** Share of farms benefitting from CAP investment support contributing to climate change mitigation and adaption, and renewable energy or biomaterials production Estimate – 20,000 farms

**R.26: Investments related to natural resources:** Share of farms benefitting from CAP productive and non-productive investment support related to care for the natural resources
**R.32: Investments related to biodiversity:** Share of farms benefitting from CAP investment support contributing to biodiversity Estimate – 4,000 farms

**R.44: Improving animal welfare:** Share of units covered by supported actions to improve animal welfare. Estimate 10,000 farms, 15,000 projects.

**RELATED OUTPUT INDICATORS:**

- **O.20:** Number of supported on-farm productive investments operations or units
- **O.21:** Number of supported on-farm non-productive investment operations or units

**HOW IT WAS EVALUATED IN THE PREVIOUS CAP?**

**2017 Evaluation on the Implementation of Ireland's RDP**

TAMS II provided investment opportunities for farmers to upgrade their technological and physical infrastructures in line with the objectives set out under the CAP regulation.

Two methods were applied to evaluate this scheme

1. A qualitative survey of approved applicants to gather information on applicants' behaviour and their intention to carry out investments approved under TAMS II.
2. A Quantitative analysis using National Farm Survey (NFS) data to establish the baseline position of TAMS II participants and non-participants before the investments were completed.

The NFS data was used to evaluate results of these farms against their counterfactual (i.e. to calculate the changes that would have occurred without the specific programme intervention) throughout the lifetime of TAMS II. This data was then used for yearly assessments thereafter.

**Results of survey data**

257 farms were sampled via a phone survey, carried out on behalf of DAFM. Each farm had investments approved under the TAMS but had not yet carried out the investment. The purpose of the survey was to discover whether these farmers intended to carry out all of their approved investments, only some of the investments or none of the investments and the reasons for the delay. The following is a summary of the results:

- 88% of farms surveyed indicated that they intended to carry out their investment, while only 6% indicated that they did not intend to proceed with the investment.
• 42% of farms intended to carry out their improved investment within 6 months, while a further 29% indicated that they would carry out the work within 1 year. This showed that expenditure under TAMS II was likely to increase substantially over the next period.

• 28% stated that “a fall in income due to a change in the price of agricultural commodities” was the main reason why the planned investments under TAMS had not been carried out to date. Other reasons included people being “less optimistic about the future due to Brexit” (16%) and the fact that bank interest rates were too high (13%). 11% stated that they could not get access to credit for the matching funding.

• An increase in farm efficiency was the main reason cited for applying for TAMS support, with just one third of farmers claiming that they would carry out the same level of investment without a grant.

Borrowing from a bank/financial institution (54%) and own savings (33%) were the main sources used to access additional funds to complete the investments.

**Baseline Data Analysis (Quantitative)**

The National Farm Survey (NFS) conducted by Teagasc on an annual basis is performed on a random, nationally representative sample, of over 1,000 farms. Each farm is assigned a weighting factor so that the results of the survey are representative of the national population of farms. For this analysis, individual TAMS approvals up to the end of 2016 were matched with the most recent NFS data available.

TAMS approvals were used to establish the baseline position of TAMS, and non-TAMS participants captured in the NFS. Going forward the baseline position of TAMS and non-TAMS participants was monitored to assess progress in achieving the stated objectives.

The indicators examined below were monitored over the entire programme period allowing an assessment of the impact of TAMS investments on their stated objectives. The 2015 data utilised in this analysis relates to a period of time before any TAMS investments would have taken place and as a result the figures below can be considered as a baseline position of TAMS participants and non-TAMS participants.

1. **Competitiveness**: Gross Output per Annual Work Unit (a complimentary result indicator), gross output (€) per hectare of utilised agricultural area (UAA) and family farm income was used to assess progress in improving competitiveness.

2. **Generational Renewal**: The age profile of farmers under TAMS was used to assess generational renewable and the extent that farms are demographically non-viable (farmer is aged over 60, and there are no members of the farm household younger than 45).
3. **Nutrient management**: The nitrogen balance indicator was used to assess the potential magnitude of nitrogen surplus which may result in nutrient losses to water bodies.

4. **Emissions**: The average Green House Gas emission per hectare indicator was used to assess progress in reducing GHG emissions.

5. **Competitiveness**: Under the umbrella of competitiveness, *Gross Output per Annual Work Unit*, *Gross Output per hectare of utilized agricultural area*, and *Family Farm Income* were used as metrics to measure the effectiveness of the TAMS II from this perspective.

**Overall Recommendations from 2017 evaluation**

The following recommendations were suggested:

1. Teagasc NFS data should be matched with TAMS beneficiaries as more payment data becomes available, i.e. those where the investment had been completed and payment was issued.

2. Teagasc NFS data should be matched with TAMS beneficiaries at a greater level of detail than the overall scheme i.e. analysis should be conducted at the TAMS strand level. This would enable future evaluations to accurately assess the impact of TAMS investments on achieving the objectives of the scheme. However, it may be difficult to report by TAMS strand in the first few years of the scheme if the number of completed investments is low.

3. Further analysis should be conducted to establish suitable control groups taking into account the farm type and other relevant characteristics.

4. An additional survey could be carried out (as a supplement to the annual National Farm Survey) to address the areas currently not covered by NFS, or collected by the TAMS application process (indicator data). This should include questions on farm risk prevention and management related to animal welfare and farm safety investments and energy efficiency in the pig and poultry sectors.

**Mid-Term Evaluation of Irelands RDP (2014-2020)**

*Quantitative analysis*

A detailed counterfactual econometric analysis of the impacts of TAMS II was conducted by indecon for this evaluation. The difference of means t-test results, indicated that farmers receiving TAMS support during the 2015-2017 period are on average larger, have higher income, output and investment levels. Moreover, since there is no significant difference between the crops output, the differential for farm output between TAMS II recipients and non-recipients is driven from higher farm livestock output. The significance of the differences recorded in these factors imply that these farm characteristics may serve as important determinants for the participation in TAMS II. Thus, it is imperative to control for these
factors in estimating the impact of TAMS II on farm output, productivity and other relevant outcomes.

Initial observations showed that there were issues with self-selection of farmers in TAMS II meaning that caution was required when interpreting fixed effects of regression analyses. As such, counterfactual modelling techniques such as Regression Adjustment (RA) and Propensity Score matching (PSM) were used to account for this.

The results from RA and PSM models do not indicate any significant impact of a TAMS II grant on farm output and productivity to date. This result was expected, given that the data records a maximum of only three periods post TAMS II receipt. This is a relatively short period of time for the impact to be evident.

In order to examine the likely impacts over time, Indecon completed an econometric counterfactual analysis for the full sample from 2001 to 2017 which found that TAMS II grants had a positive impact on farm output and productivity. The magnitude of impact from the RA and propensity score matching suggests a positive impact on output of 6–7% and an increase in productivity of the order of 5–6%. In addition to the Propensity Score Matching economic model, Indecon also considered an alternative modelling approach using inverse probability weighting regression adjustment model. This showed a positive although smaller impact on output and productivity.

Indecon also conducted an analysis on the CAP impact indicators for TAMS II, to dig deeper into understanding the impact of the intervention alongside productivity output. The results demonstrate a positive and statistically significant relationship between the TAMS II grant and Agricultural Entrepreneurial Income (AEI) and Agricultural Factor Income (AFI). However, the results do not suggest any significant relationship between TAMS II and farm Total Factor Productivity.

**Qualitative Analysis**

In addition to the econometric analysis, Indecon undertook a survey of farms to evaluate some key aspects of the scheme. The majority of respondents in the survey deemed TAMS II as an important contributor to achieving improvement in the efficiency and competitiveness of farms. Moreover, survey respondents also ranked the impact from TAMS II on modernisation/restructuring of farms, improvement in safety and reduced risk, quality of farm produce, achieving environmental protection for water and soil, and increasing the energy efficiency on the farm, as all being significant to moderate. However, a portion of respondents
suggested that there was no impact of TAMS II capital investment on reduction of farm emissions or the move to alternative farming practices

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

**Austria**

The European Association for Information on Local Development (AEIDL) conducted an econometric counterfactual analysis of measure 121 of Austria’s RDP (2007-2013), the modernisation of agricultural holdings. The analysis was aided by the availability of high-quality data in the national bookkeeping records in Austria. Importantly, a variable in the dataset included a distinction between farms who received these subsidies and those who did not.

As such, the analysis was built on a basic performance comparison of beneficiaries of the investment with non-beneficiaries by including a binary conditional Propensity Score Matching (PSM). PSM allows the control group (non-beneficiaries) to be matched with the treatment group (beneficiaries) so that they are as similar as possible in both observable and unobservable dimensions. Assuming the matches are robust to statistical testing, causality of the interventions can thus be inferred with greater confidence.

By using the unit of Gross Added Value (GVA), the results of the econometric analysis showed that the M121 intervention was indeed very effective. Importantly however, by using the conditional PSM value to inform the creation of the control and the treatment groups, the reliability and the replicability of the evaluation improved drastically. In demonstration of this, the conditional PSM method reduced the original selection bias by 95% in comparison to when it was not used (i.e. simply comparing beneficiaries and non-beneficiaries without any other consideration).

**Czech Republic**

The Czech government used a Programme-Theory-Based evaluation (PTB) method to evaluate a bundle of investment support measures intended to improve the competitiveness of Czech
Agriculture between 2007-2013. The modernisation of agricultural infrastructure and technologies was a core component of this intervention.

Academic papers, as well as publications from state bodies such as the Ministry for Agriculture were used as data sources to construct a conceptual model, which initially consisted of sectoral needs (accounting for a SWOT analysis and needs assessment) to be addressed through the carrying out of specified actions. For example, to improve animal welfare (need), or to invest in animal production technologies (action).

An important analytical step included verifying the implementation of planned activities. This was achieved through the monitoring of inputs (i.e expenditure on projects), and outputs (e.g reconstruction and building of cow sheds).

The summarised outputs for each intervention (e.g. improved agricultural infrastructure) were then transformed into results for the target intervention (e.g. higher productivity and efficiency in milk production). It was important at this stage to take into account external factors that may have affected the result aside from the investment (e.g. changes in the macro-economic context).

The final stage, known as the judging phase, consisted of the evaluator drawing evidence-based conclusions on the effectiveness of the interventions. Considering external factors, the experts judge the intervention effectiveness on an ordinal scale ranging from very low (1) to very high (6).

Through the development of a conceptual model, each stage of the PTB process was quantified and evaluated in its own right. As such, the findings of this method can be considered robust although with a low external validity. Moreover, the expert analysis was discussed and if necessary, adjusted via a ‘validation workshop’ with stakeholders.

**Sweden**

The agricultural management authority in Sweden conducted an evaluation to assess the impacts of the investment aid on competitiveness. They use five complementary measures for the competitiveness of agricultural firms which are: labour productivity, total factor productivity, employment, turnover, and market share. Information on aid received by firms is matched to the firm-level register data from Statistics Sweden, and they use counterfactual methods to isolate the effects of the aid. The three main core findings are outlined below:

*The effects of Investment Aid are Positive and Long-Term*

The results of the analysis show that the investment aid increased competitiveness of agriculture firms, especially in terms of productivity and turnover. To caveat this, the effects of the aid tend to be low or statistically insignificant in the first years after the firm receives the payment. Moreover, there is no decrease in the effect size of investment on increased competitiveness. This may indicate that a) it takes time for the investments to have an impact in terms of increased competitiveness, after a transition period is navigated, and b) investment aid is linked to continued and positive long-term effects.

For evaluating similar schemes in the future, it is recommended that a sufficiently long period of time is used to measure the effects, and that an assessment on how to reduce the transition period for firms should be considered, in order to maximise the impact of the intervention.

**There are Geographical Differences in the Effects of the Aid**

Firms in the northern and central counties of Sweden are experiencing the highest level of benefit from the intervention. The geographical differences show the importance of considering factors that can be linked to the location of firms, in order to make correct conclusions about the impact of the aid.

**There are Differences in the Distribution of Aid Across Time, and Between Firms**

Investment aid paid out in the current programme (2014-2020) is on average larger than it was in the previous programme. Also, there are statistically significant differences between firms receiving aid in the current and previous program periods, where supported firms tend to become larger and more productive over time. An important caveat to mention here is that there are systematic differences in the characteristics between supported and non-supported firms, which highlights the importance of counterfactual designs in evaluating the effects of supports. If a basic comparison of differences analysis was completed, these systematic differences may be overlooked.

**13. Collaborative Farming Grant**

The Collaborative Farming Grant (CFG) is intended to encourage land mobility and succession planning as a means of increasing the current low levels of young farmers in the Irish agricultural sector and supporting increased access to land and generational renewal. Seeing as a key barrier for younger farmers to access land is a reluctance for older farmers to release the land, this
intervention aims to build on the current Collaborative Farming Grant by providing a parallel support for older farmers.

The intervention will provide financial support towards the professional costs, such as legal, taxation and advisory, incurred during the establishment of a Registered Farm Partnership.

Providing professional information and advice for older farmers helps to address these concerns, particularly around financial and legal matters, and assists farmers in navigating a pathway to retirement therefore providing access to younger farmers. The parallel support for older farmers would help alleviate the perceived barriers for older farmers such as financial concerns, or a perceived loss of symbolic capital such as their identity, status and the control of the farm.

RELATED SPECIFIC OBJECTIVES

- Article 6(i): attract and sustain young farmers and other new farmers and facilitate sustainable business development in rural areas

RELATED RESULT INDICATORS

R36: Generational renewal: Number of young farmers benefitting from setting up with support from the CAP, including a gender breakdown

RELATED OUTPUT INDICATORS:

O.30: Number of supported operations or units for generational renewal (excluding installation support)

HOW IT WAS EVALUATED IN THE PREVIOUS CAP?

2017 Evaluation on the Implementation of Ireland’s RDP

In order to measure the impact of this intervention, two methods were applied:

1: A baseline quantitative analysis of relevant NFS indicator data, in order to identify the difference in the effects between beneficiaries and non-beneficiaries of the scheme. In this evaluation, 2015 data was used as the baseline. Generational renewal and Competitiveness were used as metrics to quantify the impacts of the scheme.

2: External research that used microsimulation modelling to analyse the effect of a range of policy incentives including the CFG have on different farm partnerships in the dairy and beef sectors.

Findings for quantitative analysis of relevant indicators
Competitiveness

In order to measure competitiveness, Gross Output per Annual Work Unit (AWU), Gross output per hectare of Utilised Agricultural Area (UUA), and Family Farm Income were selected as the variable for analysis.

The analysis found that for Gross Output per AWU, beneficiaries had a higher average gross output per AWU than non-beneficiaries. This suggests that CFG beneficiaries are more productive, in terms of producing more output, than non-beneficiaries for the same level of resources. This result needs to approached with caution as the composition of CFG beneficiaries consists mainly of larger farms withing the Dairy sector that already have a higher output per AWU than the average farm. Teagasc NFS report shows that the average gross output on all dairy farms was €180,000, 125% higher than the average farm within the survey.

The analysis for Gross Output per hectare of UAA was €2,652, 57% higher than non-beneficiaries of the scheme. Again this can be attributed the fact that the dairy sector accounts for 83% of CFGS beneficiaries accounted for within the Teagasc NFS. The average Family Farm Income was €56,784 for beneficiaries compared to €26,058 for non-beneficiaries. Dairy farmers have consistently been the most profitable farms, so again these results need to be interpreted accordingly.

Generational renewal

In order to measure generational renewal, viability and age profile were selected as the variables for analysis. The viability of a farm is very important in terms of generational renewal as if the farm cannot provide a sustainable income for all involved in the partnership then the collaborative agreement is unlikely to take place, and therefore generational renewal is unlikely to occur. The analysis found that 57% of CFG beneficiaries are economically viable compared to 37% of non-beneficiaries. For age profile, the analysis found that 93% of farms approved under CFG have a non-high age profile compared to 79% of non-CFG farms. This infers a higher likelihood of generational renewal.

Microsimulation modelling of policy options

Leonard et al. (2017) The Potential of Farm Partnerships to Facilitate Farm Succession and Inheritance; International Journal of Agricultural Management, Volume 6 Issue 1
Hypothetical microsimulation modelling analyses the effect of a range of policy incentives included in the CFG may have on different farm partnerships in the dairy and beef sectors based on data collated from the DAFM register of Farm Partnerships. This methodological approach outlines the range of policies and motivations affecting the succession and inheritance decision of farmers, allowing for a comparison of the outcomes, intending to show the most economically beneficial succession and inheritance scenarios becoming established, as is shown in the table below.

<table>
<thead>
<tr>
<th>Policies</th>
<th>Motivations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm Partnership Tax Relief</td>
<td>Age</td>
</tr>
<tr>
<td>Collaborative Farming Grant Scheme</td>
<td>Income</td>
</tr>
<tr>
<td>Stock Relief</td>
<td>Health</td>
</tr>
<tr>
<td>CAT – Agricultural relief</td>
<td>Reduced work load</td>
</tr>
<tr>
<td>CGT – Retirement relief</td>
<td>Increased leisure time</td>
</tr>
<tr>
<td>Stamp Duty – Consanguinity relief</td>
<td>Financial security</td>
</tr>
<tr>
<td>Young Farmer Top Ups</td>
<td>Education</td>
</tr>
</tbody>
</table>

*Figure 5: Main policies and motivations affecting succession/inheritance*

The main findings from this research indicate that farm partnerships are to some extent a suitable means by which to expedite farm succession and inheritance; however, there are some caveats. The suitability of a partnership depends on the individual farm level situation and also on what expectations the farmer/ successor has for a partnership. Based on the findings from this research, deciding to enter a partnership based solely on an economic rationale is best suited to dairy systems, while cattle rearing farms may have a propensity to focus on benefits such as the gradual transfer of control and increased leisure time afforded to partners.

In terms of the CFG, the research shows that it provides a minor incentive as it alleviates some costs associated with the setting up of a partnership however it found that this may not be a sufficient incentive to enter a collaborative arrangement. Moreover, the analysis found that wider non-economic benefits that could potentially be generated through farm partnerships, which could in turn bring a shift in mind-set about the value of earlier farm transfer. This requires further research however.

**Mid-Term Evaluation of Ireland's RDP (2014-2020)**
The Mid-Term Evaluation consisted of a descriptive analysis of participation in the scheme and a brief spending review. The evaluation found that as of the end of 2018, a total of 783 collaborative projects have been supported by this measure. Of this, 178 operations were related to the economic performance of the farms, whereas 605 operations were in relation to the entry of adequately skilled famers in agricultural sector. The overall expenditure on this measure was modest when the evaluation was conducted, with around €1 million spent between 2014-2018. Considering one of the objectives of this measure is generational renewal, the evaluation noted that the limited budget and low uptake of the measure were likely to result in a minimal impact in this context. For example only 0.5% of farms availed of the scheme at the time the evaluation was written.

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

**Slovenia**

Kerbler (2012) conducted a study on the factors affecting farm succession in Slovenia. The study focused specifically on farms in mountainous areas, which are particularly susceptible to farm exit, according to the author. 789 farms (11.6% of all mountain farms in Slovenia) were sampled and data was elicited via questionnaires collected by the researcher. In order to be included in the sample, farms had to be mainly engaged in livestock production and the owners had to be at least 45 years old. The effects of factors were determined using ‘discrete choice models, a form of regression analysis that makes it possible to predict the likelihood of a choice or the probability that an event will occur. Following the empirical analysis, interviews were used to obtain the owners’ opinions and considerations, and these were compared with and connected with the findings of the empirical analysis.

The results of the study show that in Slovenia, economic factors have a significant effect of farm succession, however the factors that could strengthen the takeover and the timely transfer of Slovenian farms are not only economic ones. Financial assistance for young successors and for the owners’ early retirement is only the ‘last resort’ among the possible incentives for increasing the number of takeovers and transfers of Slovenian farms. In order to encourage succession, the study suggests that certain crucial steps should be taken early in the process. A sustained farm

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succession planning must be undertaken in order to understand the functioning and effect of specific factors such as the generation of trust between stakeholders and taboos in agriculture.

A good farm succession plan should include elements such as: a description of personal and business goals, a retirement plan for the owner, a business action plan for the farm, a plan for ownership transfer and an implementation timetable. As succession occurs over time, planning should be ongoing, starting initially as an informal process and then developing into more formal arrangements including the facilitation of the process with professional advisors. In some countries such as Australia, Canada and the US, the study notes that networks of partnering organizations and professional advisors exist to help implement appropriate tools for intergenerational transfer on farms. The study recommends the creation of such networks.

14. Continuous Professional Development for Advisors

The aim of this intervention is to provide the necessary support and resources to allow for the up-skilling and the continuous professional development of advisors in the agricultural sector. It is intended that agricultural advisors will play a central role in implementing the range of schemes to be rolled out as part of this CAP Strategic Plan.

Participation in continuous professional development activities will allow advisors to enhance their knowledge base on an ongoing basis and ensure that they are familiar with the latest techniques, technologies, and regulatory and scheme requirements in a rapidly changing agricultural industry. It will promote the development of knowledgeable, professional and competent advisors, thereby enhancing the quality of service provided to farmers. This intervention will build on the continuous professional development provided to the advisors in the Farm Advisory Service (FAS) in the 2014-2020 RDP.

The intervention will be structured around tendering processes to select suitably qualified training providers to deliver high quality professional training in a range of areas such as climate change, mitigation and adaptation, sustainable energy, air, soil and water quality, biodiversity conservation, and the adoption of new technologies and best practice. These tenders will be rolled out over the course of the programming period, and it is envisaged that they will incorporate a blended approach to learning, incorporating online and in-person learning in a manner consistent with existing FAS training delivery. Support rates will be set on foot of the competitive tender processes set out above. Tender proposals will be evaluated based on predetermined selection criteria, which will include a focus on high quality provision, proven track record, and value for money.
**RELATED SPECIFIC OBJECTIVES**

Given the role of agricultural advisors, this intervention has the potential to address all the general objectives set out in Article 6, as well as contributing to the cross-cutting objective set out in Article 5.

**RELATED RESULT INDICATORS**

R2: *Linking advice and knowledge systems*: Number of advisors receiving support to be integrated within the AKIS

**RELATED OUTPUT INDICATORS:**

O.29: Number of supported training, advice and awareness actions or units

**HOW IT WAS EVALUATED IN THE PREVIOUS CAP?**

An equivalent intervention was not evaluated under the previous CAP (2014-2020).

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

No evaluations by other EU member states were found for a similar scheme.

15. **Knowledge Transfer Programme**

The aim of this intervention is to provide farmers with a platform to share knowledge and to engage in learning, in order to foster a more competitive, resilient, modern and sustainable agricultural sector. This intervention aims to build on the 2014-2020 RDP Knowledge Transfer Programme by providing support for high quality and targeted advice to farmers, delivered by professional agricultural advisors with the appropriate experience and expertise (KT Facilitators). Increasing farmers' understanding of topics such as biodiversity, water, climate change, animal welfare and farm management including financial management and succession planning will ensure that the Irish agricultural sector remains resilient.

It is proposed that the Knowledge Transfer Groups will be set up across the whole farming sector and that Group members will not be limited by reference to the type of farm enterprise they are engaged in. Rather, Groups will be formed in accordance with local needs. A central element of the intervention design is based on ensuring that the Programme is structured in a way that ensures that the content of Knowledge Transfer Groups is clearly targeted at key challenges and issues identified in the sector while also maintaining a degree of flexibility for Knowledge Transfer Groups to tailor the content to their own experience, circumstances and requirements.
Accordingly, in each year of the intervention, each Knowledge Transfer Group will be required to deliver four meetings from a list of ‘Priority KT Topics’ and four meetings on topics decided by the Group itself. The list of ‘Priority KT Topics’ will be refreshed at the start of each year of the programme. At least one of the meetings delivered on the ‘Priority KT Topics’ must incorporate delivery from an appropriate external expert. At the beginning, middle and end of the 4-year intervention, each KT Facilitator will hold a one to one meeting with each farmer in his/her group in order to set out their goals for the programme and report on progress in relation to same.

RELATED SPECIFIC OBJECTIVES

Given the role of agricultural advisors, this intervention has the potential to address all the general objectives set out in Article 6, as well as contributing to Article 6, 2nd Paragraph: the cross-cutting objective of modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake by farmers, through improved access to research, innovation, knowledge exchange and training

RELATED RESULT INDICATORS

R1: *Enhancing performance through knowledge and innovation*: Number of persons benefitting from support for advice, training, knowledge exchange, or participating in EIP operational groups or other cooperation groups/actions

RELATED OUTPUT INDICATORS:

O.33 Number of supported training, advice and awareness actions or units

HOW IT WAS EVALUATED IN THE PREVIOUS CAP?

Mid-Term Evaluation of Irelands RDP (2014-2020)

The KT groups addressed the following focus areas and common evaluation questions:

- **FA1A**: To what extent have RDP interventions supported innovation, cooperation and the development of the knowledge base in rural areas?
- **FA1C**: To what extent have RDP interventions supported lifelong learning and vocational training in the agriculture and forestry sectors?
- **FA2A**: Improving the economic performance of all farms and facilitating farm restructuring and modernisation
- **FA3B**: Supporting farm risk management and prevention
- **FA4A/4B/4C (P4)**: Restoring, preserving and enhancing ecosystems dependent on agriculture and forestry
FA5D: To what extent have RDP interventions contributed to reducing GHG and ammonia emissions from agriculture?

The programme logic model was visualised, listing the inputs (public expenditure), activities, outputs, results and the overall impact on key agricultural outcomes. The outputs for the KT groups were:

- No. of actions/operations supported
- No. of training days given
- No. of training participants paid
- No. of active training participants

The number of training participants (paid and active) were the only outputs with targets for 2023.

**Evaluation methodology:**

KT groups were evaluated with a survey. The variables of interest in the evaluation were farm output and productivity. The survey broke down participants by KT group type (beef, sheep, tillage etc.). Survey data showed that 57% of beneficiaries suggested they would not have participated in a knowledge transfer group without the RDP support. This suggests relatively low levels of deadweight. The survey had 189 responses, and a response rate of 26.2%, which is average.

The small number of participants who completed a National Farm Survey (112), and the short time period since the commencement of the measure, meant a counterfactual analysis was not possible. The evaluators completed an econometric analysis using a sample fixed effects regression, which found a correlation between receiving a KT group payment and farm output and productivity. The sample size is too small for this correlation to be conclusive.

A t-test was used to compare characteristics of KT participants and non-participants using NFS data. Farmers receiving a KT payment on average had higher family income and were younger. Apart from these two differences, farmers in receipt of a KT payment did not differ significantly from farmers who do not receive a KT payment on factors such as farm output, farm size, capital investment, farm depreciation and value of fertilisers used. However the small sample size limited the validity of the findings.

In conclusion, the report recommended replication of these tests at the ex-post evaluation, using more complete datasets from a longer time period. They noted further qualitative research was required, but did not specify in what areas. A counterfactual had not been formulated at the time of the evaluation.
HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?

Wales

Wales published a stand-alone evaluation of their Knowledge Transfer, Innovation and Advisory Services Programme. There was a three-fold focus: firstly, assessing the effectiveness and efficiency of programme delivery, secondly, gathering data on the outcome of the programme, assessing impacts, and thirdly, to learn what worked and why.

The report focused on nine specific evaluation questions, such as:

- How intensively do farmers engage with the programme and progress through the offer, and what drives this?
- What factors enable or hinder implementation and progress towards intended outcomes?

Methodology:

The Welsh evaluation used an in-depth, longitudinal and largely qualitative approach to gathering evidence for the research questions. The evaluation was split into two phases. The first phase began with a scoping report, followed by other activities including a review of programme documentation, focus group meetings, longitudinal case studies and a headline review of social media activity. The second phase was a replication of the first phase. They developed a logic chain and theory of change for the programme, which formed the framework of the evaluation and research questions. The Welsh programme had a much higher sample size of participants to study (over 8000 applicants for training events on the programme) meaning there was more data and more characteristics to study in participants.

16. LEADER Programme

The aim of this intervention is to support a community led local development (CLLD) approach to rural development by funding initiatives that emerge at a local level that aim to address local challenges and needs including:

- Supporting private enterprises and communities to improve quality of life and economic activity in rural areas;

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• the need to create and sustain employment in rural Ireland with a focus on social inclusion and climate change mitigation

The LEADER Programme is a key rural development tool for supporting the economic and social development of rural communities, by providing the resources necessary for communities to support their own development and create capacity at local level. Support under this intervention is provided to Local Action Groups (LAGs) to implement pre-defined Local Development Strategies (LDSs) in their local areas. Each LDS will be required to examine the potential of these themes within the LDS process and in the context of an integrated regional and local planning approach. The indicative high-level LEADER themes are:

- Economic Development and Job Creation,
- Rural Infrastructure and Social Inclusion and
- Sustainable Development of Rural Environment and Climate Change Mitigation.

The Local Development Strategies selection process will consist of two separate phases (an expression of interest phase and a developmental phase). The Local Development Strategies will be selected by an Independent Selection Committee. Individual projects will be eligible for LEADER programme funding if they contribute to achieving the aims and objectives of the LDS and correspond to the objectives and priorities indicated for support in the CAP Strategic Plan.

Support will be provided for the preparation and implementation of co-operation activities of the local action; and support will be provided for running costs and animation. Support must be in line with the aid intensity rates provided for in the legal framework and relevant State Aid limitations. Support rates vary depending on the type of project selected, with the possibility of aid intensity rates of up to 100% (TBC) available for certain interventions. Projects will require an element of co-financing of individual operations by public and/or private investors for most approved operations, in order to promote community ownership of the funded projects.

RELATED SPECIFIC OBJECTIVES

- Article 6 (h) - promote employment, growth, gender equality, social inclusion and local development in rural areas, including bio-economy and sustainable forestry
- Article 6, 2nd paragraph: the cross-cutting objective of modernising the sector by fostering and sharing of knowledge, innovation and digitalisation in agriculture and rural areas, and encouraging their uptake by farmers, through improved access to research, innovation, knowledge exchange and training

RELATED RESULT INDICATORS

R.38: LEADER coverage: Share of rural population covered by local development strategies
RELATED OUTPUT INDICATORS:

O. 31: Number of supported local development strategies (LEADER) or preparatory actions

HOW IT WAS EVALUATED IN THE PREVIOUS CAP?

2017 Evaluation on the Implementation of Ireland’s RDP

The Focus Area and Common Evaluation Question for LEADER was:

- FA 6B To what extent have RDP interventions supported local development in rural areas?

The mandatory indicators of the LEADER programme all had targets for 2023. The indicators were:

- Total Public expenditure: support for preparation of LDS
- Total Public expenditure: support for running costs of the LDS
- No. of LAGs selected

LEADER co-operation projects were launched in 2016. It was a new element for two or more LAGs to team up on projects of mutual interest. LAGs could be cross-border, i.e. from Northern Ireland.

Evaluation methodology

The evaluation gave a quantitative description of preparations and administrative activities in the measure since 2015. This included how much of the rural population falls under LAGs, how many jobs will be created by the projects, funding allocations and the number of expression of interests. The evaluation created a table breaking down how much money was going to each of the three themes and their sub-themes.

Each LAG had to develop a monitoring and evaluation plan. This includes outlining the methodology for collecting quality data that measures the achievement of local objectives and reports on local projects. These monitoring and evaluation requirements were similar to the EU requirements for the LEADER Measure itself. Proposals had to outline:

- Objectives of the evaluation
- Governance for managing the evaluation
- Specific themes that the LAG wishes to evaluate
- Data requirements and Methodology to be employed
- Timelines / Key Milestones
- Proposed approach to communicating the findings.
Annual reports were required and followed a template available online. These reports had to include information such as performance indicator data, priority actions and three Project Case Studies covering different sub-themes.

The second stage of the evaluation was developing an interactive storyboard of case studies from the 2007-2013 RDP. The final action of the evaluation was to survey LAG CEOs and Development Officers after training sessions in capacity building. The findings showed that training on IT (86%) and Operating Rules (84%) were the most important training categories identified. It also found that Rural Environment (97%), Social Inclusion (89%) and Economic Development/Enterprise Development/Job Creation (84%) were the most important LEADER Themes that needed to be addressed under training.

**Mid-Term Evaluation of Irelands RDP (2014-2020)**

The evaluators held discussion meetings with DAFM and DRCD staff in charge of the LEADER programme. The data, programme logic and issues within the programme were gleaned from these meetings.

The evaluation visualised the programme logic model for LEADER. Inputs and activities were listed out in tables alongside the target outputs for 2023:

- Total public expenditure on preparatory support
- Total public expenditure on implementation operations
- Total public expenditure on preparation and co-operation
- Total public expenditure on animation and running costs

Outputs were also listed but only the population covered by LAG had a 2023 target. Outputs were:

- Population covered by LAG
- No. of people trained from training projects
- No. of LAGs supported
- No. of co-operation projects supported
- No. of LEADER projects supported
- Type of project promoter (NGOs, public bodies, LEADER groups etc.)

The evaluation included detailed data for target indicators for the years 2017 and 2018. Target indicators were:

- Percentage of rural population covered by LDSs
- No. of existing jobs sustained
- No. of jobs created by projects (broken down by gender)
- Population benefitting from improved services
- No. of visitors benefitting from Rural Tourism projects
- No. of people availing of basic services in hard-to-reach communities
- No. of young people participating in Rural Youth Projects

Like the 2017 evaluation, funding was broken down by sub-themes and geography. The number of LEADER projects in a region did not correlate with the amount of funding it received. The report also noted the amount of private funding for projects, broken down by geographical region.

LEADER was one of the four measures which had primary research conducted by Indecon, in the form of a survey of beneficiaries and LAGs. 249 responses were obtained from LEADER beneficiaries while the LEADER groups survey yielded 32 responses. The small sample size of responses received by the LEADER groups limited its applicability. Questions for beneficiaries and leaders included questions relating to obstacles faced during the application process and the ease of attracting grants in their community. Alternative funding views were included, i.e. if the participants thought they could get the funding for a project in the absence of LEADER. This demonstrated the potential deadweight in the programme.

**Recommendations:**
The Indecon report recommended monitoring the effectiveness of new action points introduced to reduce administrative burden. In addition, they recommended focusing on attracting quality project proposals.

**HOW DID OTHER EU MEMBER STATES EVALUATE THESE INTERVENTIONS?**

**Scotland**
Scotland presented their mid-term evaluation of the 2014-2020 LEADER programme in 2018. Impacts were assessed in two phases, the first using a quantitative analysis of administrative data on all the Local Actions in Rural Communities system (LARCs). The second phase collected and analysed qualitative data from four selected Local Action Groups (LAGs) acting as case studies. As many of the LEADER projects were in early stages they had limited data. However, the case study groups that were selected, were so due to their projects being close to completion.

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The chosen projects were analysed according to the type of project (community, enterprise or farm diversification), total costs and intervention rates and the Local Development Strategy covering the project. These variables were selected due to comparability and accessibility and the projects were assessed based on their environmental, social, cultural and economic impact.

The recommendation from the evaluation was to hold onto the bottom-up and local approach of LEADER, but to introduce standards of services to LAGs. In case of poor performance, services need to be centralized to ensure fair and quick payments. Additionally, it should be evaluated whether payments partly could be made upfront to help smaller organisations. To increase efficiency of any future funding programmes, the report also recommends to distinguish between grant sizes and also types of projects. Lastly, funding should be more flexible to increase continuity between projects if this is possible post-Brexit.

**Denmark**

The Danish Ministry of Housing, Urban and Rural Development collaborated with experts and stakeholders to create an electronic operations database for the Local Action Groups (LAGs) implementing Community Led Local Development (CLLD) strategies. The purpose was to create a database to assist LEADER and CLLD stakeholders throughout the delivery process of the intervention. The database is called PROMIS (Project Result Oriented Management Information System). PROMIS is equipped with several analytic and visualization tools and a rapid and user-friendly solution to elaborate, display, and interpret large amounts of data.

The database was used for to manage the application and selection process of LEADER/CLLD supported projects and carry out the monitoring and evaluation of LEADER at RDP and LAG level. This benefitted project applicants and beneficiaries by sharing project selection and project results. It benefitted LAGs by having open access to data about all LEADER projects which are useful for monitoring and evaluating CLLD strategies. It benefitted DRP managing authorities by having open access to data at all levels which informs their evaluation process broadly speaking.

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Upon rolling out this data sharing technology, the evaluators identified a number of observations regarding quality aspects of an operations database and subsequent recommendations on how they could be implemented. They are the following:

1. A Balance between standardisation and flexibility in the collection of data for evaluation.
   To capitalize on this, there must be a focus on the final utilization of the data collected. Moreover, it is important to coordinate carefully the data flow among different governance levels (sharing data that will be useful to LAGs and RDP administrators).

2. Data collection based on a clear intervention logic.
   To account for this, create a multiple-choice list in the application form to link the primary and the secondary contributions of each project to the most appropriate CLLD strategy's objectives and RDP focus areas.

3. The integration of centralized and decentralized data management
   This could be achieved by integrating the needs and perspectives of multiple LEADER/ CLLD stakeholders when developing and implementing a LAG operations database. This will ensure a diverse range of needs are catered for. Matching up with this, precisely define the role and responsibility of each stakeholder involved in the IT solution for monitoring and evaluation.

4. Smarter Application of the LAG operations database for multiple uses and multiple funds
   For example, such a database could extend its functions for stakeholders to seek out and apply for funds and incentives in other intervention areas.

**Sweden**

This report is the second of four interim reports on LEADER, and its purpose is to analyse the effects of the scheme sometime after the completion of LEADER projects. Effects in this context are defined as structural changes in the local community. The report notes that added value in the form of factors such as social capital, quality of life, and local networks, are important outcomes for LEADER programmes, but are not sufficient to achieve it’s long-term political goals.

**Methodology**

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The report sought advice from the LEADER project manager within the Swedish Managing Authority, together with the chairpersons of 14 Local Action Groups (LAGs) areas to select two projects from each area, which they consider to be rich in effects, from the previous programming period (2007-2013). Interviews were conducted on project leaders and the results evaluated and analysed.

Findings
The findings were generally that the projects created more added value (such as social capital) than it did the desired structural changes. Structural changes that were observed include demographic changes, increased entrepreneurship, and increased public and commercial services.

It was found that the proposed/targeted effects in the applications made to the leader programme did not match the structural effects that resulted from the implementation of projects. In order to combat this, it was suggested that the application process should include greater elaboration on a) what the intended structural effects are, and b) how to achieve them.

The successful aspects of the programmes selected represent what other LEADER projects should set out to achieve, and they are:

- Having a clear picture of long term goals and be involved in an ongoing local development process
- Existence of local collaboration, cohesion and commitment
- Local anchoring and local influence
- Having a commercial approach, including the retention of liquidity and long term funding

The core recommendations for the scheme are as follows:

- Shift the focus from project results to local development effects
- Clarify the impact/intervention logic in national programmes, local strategies and initiatives
- Design supports that demand and drive structural change
- Develop a learning-focussed innovative organisational culture
Recommendations and next steps

This document has considered evaluations conducted by the Irish government as well as evaluations conducted by other EU member states. Several key takeaways are apparent and are listed below:

**Early Planning**
Knowing well in advance what data will be required to evaluate a scheme gives evaluators sufficient time to figure out how to manage the data collection process. Additionally, in order to infer with confidence the impact an intervention has had, baseline data and counterfactuals need to be decided upon and collected before the intervention begins. As such, the earlier these metrics can be defined, the better.

**Larger Sample Sizes**
As is always the case with quantitative analyses, the larger the sample size, the more likely one is to elicit values that are statistically significant. A number of the evaluations in the previous CAP programme suffered from small sample sizes in either control or treatment groups. Increased levels of data collection will help to alleviate this problem.

**Injection of Baseline Data**
Considering the transition from a compliance-based to a performance-based model in the upcoming CAP programme, having a solid foundation of baseline data on all agricultural related metrics is essential. Without strong baseline data, reliable statistical models are more difficult to attain, and the need for expensive and logistically challenging field surveys increases.

**Continued Monitoring of Previous Interventions**
Interventions often do not manifest results until a number of years after they have been introduced. By continuing to monitor interventions from prior programmes, useful information for succeeding programmes can be found.

**Ensuring Data Compatibility**
In order to test the impact, or indeed the change of impact, on an intervention that spans across multiple programmes, it is very important that the data used to assess the intervention is compatible with one another. As such, the data collected or analysed in the 2014-2020 RDP should align with that which is being used in the new CSP.
**Visualize Data and provide Graphics**
A picture says a thousand words. Data visualisations and graphics make otherwise complex and confusing results more accessible to both experts and non-experts. Communicating evaluation learnings and findings in an effective way increases awareness for evidence-based policy making.

**Approach and structure of evaluations**
Evaluations under Ireland’s RDP focused on individual measures (i.e. the GLAS evaluation) or on the RDP in general (i.e. the 2019 mid-term evaluation). Thematic evaluations that assess the impact of the CSP interventions on a particular theme or objective could be considered.

**Evaluation governance and oversight structures**
Ireland’s Managing Authority was responsible for planning and implementing the evaluation plan for Ireland’s 2014-2020 RDP with input from the Department’s Economic and Planning Division as well as external evaluators. A separate Unit focused on monitoring, reporting and evaluating the CSP would allow for greater focus on specific evaluations in addition to the basic evaluation legal requirements.