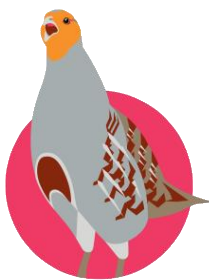




TRANSNATIONAL REPORT

PARTRIDGE – 17 November 2021

Nel Ghyselinck



Interreg
North Sea Region
PARTRIDGE

European Regional Development Fund



EUROPEAN UNION

Preface

This report on stakeholders' attitudes to agri-environment (AE) schemes for arable farmland wildlife is part of the PARTRIDGE project.

PARTRIDGE is an Interreg North Sea Region project, running from 2016 to mid-2023 with 12 European partners in five participating countries (England, Scotland, the Netherlands, Germany-Lower Saxony and Belgium-Flanders), with partners in Denmark joining the project in 2019 after the interviews for this report had been conducted. PARTRIDGE demonstrates how nature friendly farming practices can have an impact on partridge populations and farmland biodiversity in general. Several countries in Europe compensate such efforts through the Common Agricultural Policy (CAP) with their own subsidy systems, also known as AE schemes or Pillar 2 payments. In the Netherlands these measures are called "Agrarisch Natuur en Landschapsbeheer (ANLb)", in Belgian Flanders "Beheerovereenkomsten (BO's)", in England, "Countryside Stewardship (CS)", in Scotland "Agri-environment and Climate scheme (AECS)" and in Germany "Agrarumweltmaßnahmen (AUM)".

Part of the PARTRIDGE project involves socio-economic research coordinated by the Flemish Land Agency (VLM). The aim of this work package is to get a better insight into how AE schemes work for arable farmland wildlife and farmers in order to improve their effectiveness. One of the aspects of the socio-economic research was a series of stakeholder interviews in England, Scotland, Belgium, Germany and the Netherlands targeting farmers and other stakeholders involved in AE schemes. The outcomes of these interviews were used to shape the content of a widespread survey of farmers in the six countries covered by PARTRIDGE at the beginning of 2021.

This report presents the results of 74 in-depth interviews undertaken in the autumn of 2018 and the first three months of 2019 across the participating partners in the PARTRIDGE project.

Acknowledgements

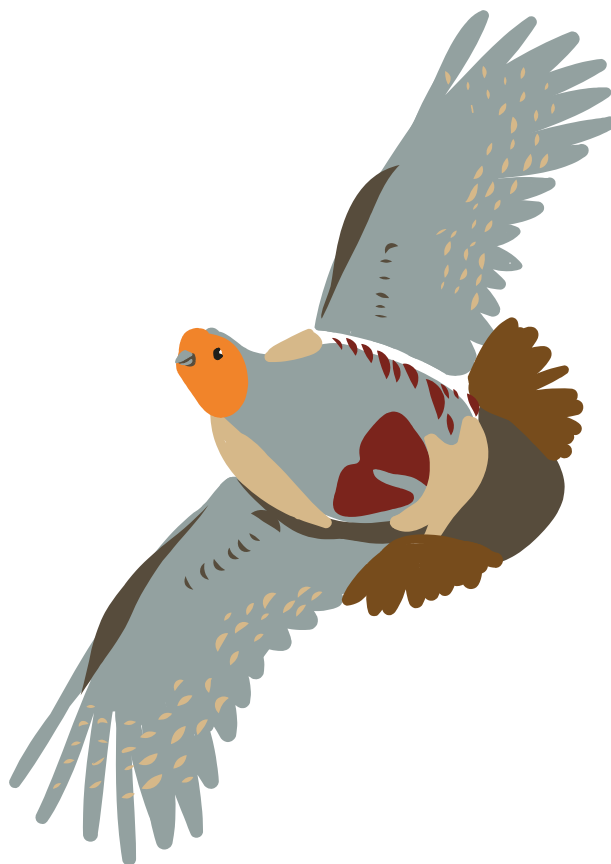
We wish to thank all the participants who gave up their valuable time to contribute to this work.

We would like to thank all 74 respondents (farmers, policy makers, researchers and stakeholders) who cooperated in the interviews.

We also want to thank the WP5 team of PARTRIDGE : Frank Stubbe (Vlaamse Landmaatschappij), Julie Ewald, Fiona Torrance, Elouise Mayall, Holly Kembry, Jessica Brooks and Dave Parish (Game & Wildlife Conservation Trust), Frans van Alebeek and Jules Bos (Vogelscherming Nederland), Annette den Hollander and Jochem Sloothaak (Brabants Landschap) and Nanning-Jan Honingh (Stichting Landschapsbeheer Zeeland) and Lisa Dumpe and Niamh Halmschlag (University of Göttingen).

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Anne-Lieke Struijk-Faber provided the illustrations for this report and layout (Vogelbescherming Nederland). Sabrina Reinders helped with the layout (Vogelbescherming Nederland).





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Summary

In the Interreg North Sea PARTRIDGE project, 12 European partners and 10 demonstration areas work together to increase biodiversity on farmland at all demonstration sites by 30%. The project will run from 2017 to mid-2023. More information about the project can be found at www.northsearegion.eu/partridge. One aim of the PARTRIDGE project is to improve the existing national agri-environment (AE) scheme systems and to integrate our PARTRIDGE measures and methods into those national systems and, if possible, into the different national strategic plans for the new Common Agricultural Policy (CAP) of Europe.

The PARTRIDGE project includes a socio-economic research package, under the coordination of the Flemish Land Agency (VLM). This research package included a transnational comparison of the opinions of farmers and relevant stakeholders about the effectiveness of AE schemes for arable farmland wildlife in the five of the participating countries.

In the following report we clustered the responses from the 74 interviewees from the partner countries into five themes, these being "organisation and design", "payment", "ease of implementation", "knowledge and communication" and "motivation and trust". In each of the themes we searched for differences and similarities between countries.

"What are the success factors and pitfalls to improve the effectiveness of AE schemes for arable farmland wildlife?"

To answer our research question "What are the success factors and pitfalls to improve the effectiveness of AE schemes for arable farmland wildlife?" it was important to first detect what the respondents identified as success factors, pitfalls and suggestions for improvement of AE schemes in their country. Several of the partners of the PARTRIDGE project, those in The Netherlands, England, Scotland and Flanders, have produced a national report describing them; the national reports can be found on the PARTRIDGE website <https://northsearegion.eu/partridge/output-library/>.

Secondly, we compared the responses between the countries. A transnational comparison makes it possible to give an overall picture of the AE schemes in the different countries and illustrates what the similarities and differences were between them. It is hoped that this comparison will make it easier for countries to learn from each other. Below, we present the results of the transnational comparisons for each of the five themes. The success factors we identified were aspects where respondents reported a positive assessment when they spoke about AE schemes for arable farmland wildlife in their country. Conversely, pitfalls were those subjects where interviewees reported a need for improvement. Both success factors and pitfalls could be potential learning points for other countries, as well as in the country where they were recorded. Suggestions for improvements in AE schemes were also mentioned and are also considered here. The whole list of success factors, pitfalls and suggestions is in appendix 3.

THEME : ORGANISATION AND DESIGN

The biggest differences between respondents in the countries in terms of organisation and design was in the provision of advice for AE schemes (in the Netherlands interviewees were very satisfied with working with their collectives and in Flanders with the individual guidance provided by VLM-advisers), the access to AE schemes (there was a high degree of variability across the different countries, both officially and practically¹) and the inspection of AE schemes (in all partner countries, except Flanders, this was seen as an obstacle for the uptake of AE schemes, in England and Scotland we detected a very critical attitude towards the governmental organisation and inspection of AE schemes).

A pitfall mentioned in all countries was the lack of monitoring of the results of the AE schemes. Furthermore, all partners reported that interviewees provided suggestions for adapting the design of measures in AE schemes (some would like to adapt the measures more to local conditions, whilst others would like to enlarge the scope or open the AE schemes to land managers other than farmers).

THEME: EASE OF IMPLEMENTATION

Successes and pitfalls which were mentioned were related to integration of AE scheme management within farm management practices (things farmers already wanted to do or were obliged to do through legislation, having suitable machinery and a use for grass clippings), flexibility of AE schemes (be able to adjust width or location of measures) and concerns regarding complexity of AE schemes.

THEME: PAYMENT

When it came to payment, it was concluded that there are large differences in the payment level for AE schemes between the countries. Interestingly, considering the discussion in our interviews, it did not appear that farmers are aware of these differences between the different countries. It was mentioned in several interviews (Dutch, Flemish, German-Lower Saxony) that the financial aspect was an important incentive to take up AE schemes. Many farmers felt that the payment of AE schemes should cover their costs, which they felt was not the case.

Another finding was that the Netherlands is the only participating country to vary their payment according to local environmental conditions. Interviewees of other partner countries were positively disposed towards the idea of alternative payment systems, in which the level of AE scheme payments vary according to soil type, high yielding land, and the results obtained for efforts to benefit biodiversity and wildlife. They also believed that such alternative systems would be bureaucratically complex and difficult to implement.

¹ In the Netherlands and Flanders AE scheme applications are restricted to defined areas. In England, farmers have access to the AE scheme across the country but the options they choose have to be relevant to local environmental priorities, and in Scotland, farmers have to be in target areas based on the distribution of species with conservation needs in order to be able to join an AE scheme. In Scotland paid advice on how to join plays an important role in getting access to these schemes. In Germany, AE schemes are organised at the local state level, with options available varying between different states.

THEME: COMMUNICATION AND KNOWLEDGE

During discussions covering communication and knowledge, respondents in all countries felt there is a need to educate farmers on arable farmland wildlife. Both formal training (e.g. in agricultural education programs), and informal training (e.g. by sharing of monitoring results) were suggested, and also that farmers work together (e.g. in farmer clusters or collectives) to increase knowledge sharing. This opinion was supported by a consensus amongst respondents that farmers can best communicate with other farmers about AE schemes. It was also mentioned that it's important to create public awareness of AE schemes in order to maintain support for them. Some good examples of this that were given included farm walks, Open Farm Sunday, social media, etc. All partners concluded from the interviews that there was still room for improvement in written guidance for AE schemes (e.g. clearer and more attractive texts, better adapted to the target group(s), with more scientific evidence on how to get better biodiversity results).

THEME: MOTIVATION AND TRUST

In all countries the motivation for farmers to continue with involvement in AE schemes was that they were doing something good for the environment. In countries with relatively high payments (Netherlands, Flanders and Germany-Lower Saxony), the financial aspect was probably more decisive than a perceived positive effect on the environment. Of the farmers who also hunt, more mentioned the fact that AE schemes attract wildlife. In all countries, farmers with more experience of AE schemes for a number of years were more likely to report a desire to continue with AE scheme provision. In all countries, fear of judgement from others was cited as a reason for not starting an AE scheme. In Germany (Lower Saxony), Scotland and England, distrust of the government played a part in not implementing an AE scheme. In England, Scotland and Flanders, respondents suggested putting more emphasis on the commercial benefits that may accrue due to the AE scheme measures to motivate farmers to join an AE scheme.

The results of this report were used to form the content of a survey, which was distributed to several thousand farmers in the countries participating in the PARTRIDGE project in early 2021. Based on this survey, we will investigate the support for AE schemes among stakeholders, and draw up recommendations to improve participation in agri-environmental schemes.

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Rotherfield demo site farm walk for Hampshire farmers union © Kevin Milner

1. Introduction

In the EU PARTRIDGE project, we wanted to find out why the decline of arable farmland wildlife has not been halted in the EU member states despite research into the causes of this decline and methods to reverse it. This ongoing decline is in spite of the widespread availability of agri-environmental (AE) schemes, with options directed towards the conservation of farmland wildlife.

We wanted to better understand why AE scheme provision has so far failed to address wildlife declines and what changes are needed to address this failure. This is a complex question to answer and so we used qualitative research to help determine what the reasons could be. With qualitative research it is possible to get an overview of the different opinions and ideas on AE schemes for farmland wildlife held by the different actors involved in their application and design. Qualitative research makes it possible to gain insights into the underlying beliefs and opinions of people on a certain topic. It is also useful in the support of the existing system or to help improve it (Mortelmans, 2013).

Within the framework of the EU PARTRIDGE project we framed the actual research question of this qualitative research as follows:

"What are the success factors and pitfalls to improve the effectiveness of AE schemes for arable farmland wildlife?" Note that this study does not evaluate all aspects of AE schemes but focuses on those sections targeting arable farmland wildlife.

For the qualitative research, each of the partners in PARTRIDGE were asked to conduct 15 interviews in their country or region enquiring about their national subsidy system or CAP Pillar 2 payments, also known as agri-environmental (AE) schemes for arable farmland wildlife. In the participating partner countries of PARTRIDGE, the AE schemes at the time of the surveys were:

- UK, England: Countryside Stewardship (CS)
- UK, Scotland: Agri-environment and Climate Scheme (AECS)
- Germany, Lower Saxony: Agrarumweltmaßnahmen (AUM)
- the Netherlands: Agrarisch Natuur en Landschapsbeheer (ANLb)
- Belgium, Flanders: Beheerovereenkomsten (BO's)

Throughout the text all these different national systems will be referred to as "AE scheme(s)".

The interviews were done with both farmers and relevant non-farmers. Farmers were chosen because they execute AE schemes, while relevant non-farmers were interviewed because they were involved with AE schemes in one way or another. In this report the group of the "non-farmers" will be referred to as "stakeholders".

The results of this qualitative research of the 74 interviews conducted will be tested in a subsequent quantitative study using an online survey of a larger group of farmers.



Scottish BBC radio interview with demo site manager and farmer discussing the PARTRIDGE project © Dick Playfair

2. Materials and methods

The qualitative research was set up under the supervision of Maarten Crivits of the Flemish Research Institute for Agriculture, Fisheries and Food (ILVO) and Lee-Ann Sutherland of the James Hutton Institute in Scotland.

2.1 QUESTIONNAIRE

In the qualitative research the interviews were conducted with a semi-open questionnaire.

The advantage of a semi-open questionnaire is that it gives structure to an interview. It is an interview guide, so that a predetermined list of interview topics is definitely discussed, but also gives the interviewer the opportunity to ask the interviewee supplementary questions to gather further information. The order of the subjects, the formulation of the questions and the formulation of the answers were not fixed. (source: www.actie-onderzoek.nl/pdf/gestructureerde_interviewswebsitegereed.pdf)

Working with a semi-open questionnaire made it possible to coordinate between the five partner countries of the PARTRIDGE project in the way they conducted their interviews. The questions were open-ended in order to allow the respondent the freedom to talk about what they considered to be of most importance. All interviews were undertaken in person (face-to-face), arranged through previous appointments. Written notes were taken during the interview and recordings made of the interviews to allow written notes to be checked and updated where necessary.

The topics dealt with in the questionnaire included exploring opinions about the governmental processes for providing AE schemes, the implementation of AE schemes in practice – this included the options or measures available and the effectiveness of them, how to improve the uptake of AE schemes, considerations regarding the remuneration paid for AE schemes and how this was calculated, any thoughts about monitoring of AE schemes' effectiveness and how good the guidance available was to help establish and manage AE schemes.

The questionnaire can be found in Appendix 1.

2.2 INTERVIEWERS

The interviews were conducted by the staff of the partner organisations involved in the PARTRIDGE project. In the five participating countries these were:

- England: Game & Wildlife Conservation Trust (GWCT)
- Scotland: Game & Wildlife Conservation Trust (GWCT)
- Germany, Lower Saxony: University of Göttingen
- the Netherlands: BirdLife Netherlands, Brabants Landschap and Stichting Landschapsbeheer Zeeland
- Belgium, Flanders: Flemish Land Agency (VLM)

We are aware that allowing the partners do the interviews themselves could have an effect on the answers given in the interview, reflecting the different background of each partner and their relationship with the interviewees.

The use of the semi-open structured questionnaire helped to ensure that the findings reflect the opinions of the interviewees on the subjects covered in the interviews. It should also be mentioned that partners felt these interviews were an opportunity to engage with actors they usually were not very familiar with.

2.3 RESPONDENTS

Each partner was asked to select 15 respondents to interview regarding AE schemes for farmland wildlife, half of them farmers and half of them stakeholders (non-farmers).

We interviewed farmers with AE measures for arable farmland wildlife because they are the ones who execute the AE schemes in practise. We also spoke with farmers who had not taken up an AE scheme for arable farmland wildlife to find out about the reasons they did not join it.

The partners selected farmers with a good knowledge of AE schemes as well as being an active member of their community. The sizes of the farms managed by these farmers ranged from large estates to small family-run farms. Due to limits in time and accessibility, the spatial distribution of the farms was mostly near the demonstration areas.

On the other hand (non-farmer) stakeholders were selected using purposive expert sampling (www.thoughtco.com/purposive-sampling-3026727). This technique is commonly used in the early stages of a research process when the researcher is seeking to become better informed about the topic at hand before embarking on a study. These stakeholders were interviewed because of their expert role as researcher, businessperson, policy maker, advisor or a representative of a farmer or nature interest group. In table 1 an overview is given of the main stakeholders who were contacted; many have multiple fields of expertise.

From the point of view of this research, it should be noted that some farmers also hunt².

² Hunt, hunters and hunting in this document refers to people who shoot wild game.

Table 1: An overview of the respondents selected by the partners.

	Farmers/hunters	Stakeholders
England (15)	6 within AE schemes (3 also hunt) 2 without AE schemes (1 also hunt)	3 advisors 1 designer 1 researcher 1 interest group 1 policy maker
Scotland (15)	4 within AE schemes (2 also hunt) 6 without AE schemes (0 also hunt)	1 advisor 1 designer 1 interest group 1 policy maker 1 business owner
Germany (15)	4 within AE schemes (1 also hunt) 4 without AE schemes (1 also hunt)	1 advisor 1 designer 1 policy maker 1 interest group 2 researchers 1 business owner
Netherlands (14) ³	7 within AE schemes (0 also hunt) 0 without AE schemes (0 also hunt)	1 designer 2 policy makers 2 interest group 2 researchers
Belgium (15)	7 farmers within AE schemes (4 also hunt) 1 farmer without AE schemes	2 advisors 1 designer 1 policy maker 2 interest group 1 researcher

2.4 ANALYSIS

Every partner transcribed their interviews. The texts of these interviews were then “coded”, with codes reflecting a shorthand of what was recorded in the text. Codes are important to bring order into the often wide-ranging responses recorded in the interviews. Coding is an iterative process consisting of several steps of tuning and comparing of codes.

(www.eurib.net/verwerken-van-kwalitatieve-data).

To coordinate the coding between the partners, we made a “codebook” which was a list of 30 codes with a description of their content. For the codes, three types were distinguished:

- Knowledge and communication: codes to do with the knowledge of the interviewees on AE schemes for farmland wildlife or the communication of them.
- Policy: codes to do with policy aspects of AE schemes for farmland wildlife.
- Motivation: codes to do with motivation to join AE schemes for farmland wildlife.

³ Due to an oversight, only 14 interviews were undertaken.

The list of codes is in appendix 2.

We used a free data management program (QDA Miner - www.provalisresearch.com/products/qualitative-data-analysis-software/freeware) to code the interviews.

For each code a narrative was written which was then reduced into key points.

We tested these key points against the research question "What are the success factors and pitfalls to improve the effectiveness of AE schemes for arable farmland wildlife?", looking at how our responses clustered - five themes were identified.

The themes were:

- **Organisation and design:** things that affected the design and management of AE schemes for arable farmland wildlife.
- **Practicality/ease of implementation:** information about how hard it is for farmers to carry out AE schemes.
- **Communication and knowledge:** evidence about communication between and knowledge of farmers, public, government and advisors on AE schemes.
- **Payment:** responses that concerned the remuneration and the system to calculate the remuneration of AE schemes.
- **Motivations and trust:** interviewee responses about the motivations to join AE schemes, or fear and distrust regarding farmer uptake of AE schemes.

The results of the interviews are described per participating country in national reports (excluding Lower Saxony, Germany). These reports outline what changes are needed, according to the interviewees, to improve uptake and implementation of AE schemes on arable land in their country. The national reports can be found on the PARTRIDGE website at www.northsearegion.eu/partridge/output-library.

In this transnational report, we describe the opinions of all 74 interviewees (grouped according to the five thematic groups described above) and compared successes and pitfalls reported by respondents in the participating countries, to find out what the interviewees consider to be good and bad practices, and include suggestions for improvements.



Expert surveying breeding birds at Oude Doorn demosite © Jochem Sloothaak

3. Results

This chapter presents an overview of the opinions of all 74 interviewees clustered into five groups which are: 'organisation and design', 'ease of implementation', 'communication and knowledge', 'payment' and 'motivation and trust'.

It is important to note that only the opinions of the interviewed respondents and no-one else are noted here, not, for example, of the interviewer.



Isabellapolder experimental flower block from the sky © Korneel Verslyppe



*Oude Doorn NL Farmers Collective discussing and evaluating quality of AE measures in the field
© Jochem Sloothaak*

3.1 THEME ORGANISATION AND DESIGN

In the face-to-face interviews we explored the opinions that interviewees had about the governmental processes for organizing and providing support for agri-environmental (AE) schemes. We wanted to know how respondents felt about the manner in which their government manages AE schemes in their country or region. We also asked the respondents their opinion of the advice given to farmers when starting an AE scheme, the design of the AE schemes and the measures in them, the monitoring of the results of AE schemes, the length of the agreements and the inspections of AE scheme measures. The results are summarised in the narratives below.



GOVERNMENTAL ORGANISATION OF AGRI-ENVIRONMENT SCHEMES

In England, AE schemes are administered by the Rural Payments Agency (RPA) on behalf of the Department for Environment, Food and Rural Affairs (Defra), with Natural England (NE) providing technical advice, with on-farm visits if wanted, in support of the scheme.

In Scotland, implementation of AE schemes is similar to England. They are administrated by the Scottish Government Rural Payments and Services department (SGRPS), on behalf of the Scottish Government and NatureScot (formally Scottish Natural Heritage (SNH)), provides general advice and support.

In the Netherlands, since 2016 the government has worked with groups of farmers, so-called 'farmer collectives', who organise AE schemes on behalf of the Provinces and give advice to farmers. The schemes are administrated by the Rijksdienst voor Ondernemend Nederland (RVO).

In Germany, the organisation of AE schemes differs in each federal state. In Lower Saxony, AE schemes are administrated by the Chamber of Agriculture (Landwirtschaftskammer) on behalf of the Ministry of Food, Agricultural and Consumer Protection, with UNB (Untere Naturschutzbehörde, a lower nature authority) and DVL (Deutscher Verband für Landschaftspflege a German landscape management association) giving advice.

In Flanders (Belgium) the Flemish Land Agency (VLM) is the AE scheme managing authority. VLM is a Flemish government agency working on behalf of the Department for Environment. VLM employs AE scheme advisors as an intermediary between government and farmers.

Many Flemish and German (Lower Saxony) respondents indicated that they were satisfied with the implementation of AE schemes in their country and how it is regulated by the government, considering the government "a neutral and objective partner". Dutch respondents reported a broad consensus that the organisation of AE schemes through farmers collectives⁴, as they do in the Netherlands, is an improvement over the previous period without collectives, with many benefits. These benefits include a stronger sense of responsibility, more goal-oriented working procedures, the collective serves as a knowledge broker, mediator and coordinator, the collective takes on some of the bureaucratic responsibilities for farmers, the collectives allow for farmer knowledge exchange and support/motivate farmers and, as the agreements are essentially within the collective, this is seen as more trustworthy than government to farmer agreements. Working with collectives also gives the possibility of greater flexibility and regional adjustments of AE schemes. Interviewees in the Netherlands said they were happy that AE schemes were funded and regulated at the European level as "European controlled systems" were seen as more stable than Dutch provincial systems.

There seemed to be some agreement with this point from the German (Lower Saxony) respondents, several of whom were happy that, as the EU provided the funding for AE schemes, felt it was sensible that they distribute it.

Some German (Lower Saxony) respondents felt that farmers should have more input on how AE schemes are organised but pointed out – when questioned about working with a farmer cluster approach – that there is a big difference between mandatory and voluntary cooperation between farmers. Flemish respondents considered it an advantage that AE schemes are run within the government because there is "a greater chance of objectivity" and "less chance of abuse". They also valued the assistance of VLM advisors. In contrast to the positive attitude of Dutch respondents towards farmer collectives, Flemish respondents reported that they saw no advantage in working with collectives in the future.

In Scotland, farmers within an AE scheme thought that the government was the right organisation to run them, but that they were not doing the job well. Some Scottish farmers felt that having a bottom-up approach would be more effective as farmers could have more ownership over what they were implementing. Farmer clusters⁴ could be a way to achieve this, and could potentially encourage increased conservation on a landscape scale. In England, perhaps the most positive statements about the organisation and design were in reference to previous systems and AE scheme designs. English respondents generally felt that the older AE schemes (ELS/HLS) were better than current ones. Many English respondents thought that there was a need for a dedicated agriculture department – harking back to the days of the Ministry of Agriculture, Fisheries and Food (MAFF, 1955-2002). This was subsumed into the Department for Environment, Food and Rural Affairs (DEFRA), in 2002.

Respondents in all participating countries identified negative aspects associated with governmental involvement in AE scheme implementation. In the Netherlands, some respondents felt that the civil servant apparatus behind AE schemes is too large (12 provinces behind 40 collectives) and that the government responds too slowly. Some Dutch non-farmer respondents thought that stakeholders who play a role in biodiversity and landscape conservation should have greater involvement in the process of decision making and not leave this up to farmers. One Dutch interviewee said that collectives have too much freedom, that the recommendations of external ecologists or advisors have no formal status and are lost in the negotiations between the collective and individual farmers.

⁴ Farmer Clusters in the England are supported by Pillar 2 money (or the equivalent post-Brexit) but are not administrative of any funds etc. In England, the facilitator is paid to organise farmer training and knowledge exchange. Often funds outside governmental control are sought (water companies, charities) to encourage AE measures for water or nature protection for example. In Scotland, there is currently no money for facilitators, but farmers are awarded extra points for their application if they submit it collaboratively. In Germany (Lower Saxony) and Belgium (Flanders) there are currently no cluster groups.

Farmer Collectives in the Netherlands are much more administrative, have control of AE scheme agreements with farmers and are a conduit for Pillar 2 funding. They are based on a long tradition of cooperative approaches to conservation. They are much more powerful than Farmer Clusters, which are more bottom-up, neighbourly affairs.

In both the Netherlands and Germany (Lower Saxony), respondents thought the discrepancies between national and regional interests within AE schemes are problematic. For example, the coordination of AE schemes is often done at national level and the implementation at regional level, with the result that farmers have only limited input into the design of AE schemes and the measures are not very site-specific.

The lack of regional flexibility was also seen as a problem by the interviewees in Scotland because it ends up with many people doing the same thing, resulting in a lack of variety of measures on the ground. In England, several interviewees thought that the bureaucracy at the European Union level hindered both the uptake of and the effectiveness of AE schemes. Having said that, many of these respondents were not convinced that the British government was going to do much better post-Brexit. Many English farmers that were interviewed had been confused over the changes that have recently taken place in the priorities and responsibilities between Natural England (NE) and the Rural Payments Agency (RPA) and were unsure if this was going to result in more effective scheme management. There was also a general concern that, both before this move and particularly after it, Natural England was understaffed, under-resourced and suffered from low staff morale.

English and German (Lower Saxony) respondents reported difficulties with the application system for their AE schemes. Problems were reported with mapping, forms which are over-complicated and unreadable guidance. The governmental departments in charge were thought to be inflexible and websites were seen as "a jungle".

In Scotland, it became clear during the interviews that there was a problem with access to AE schemes for farmers. Respondents gave several reasons for this. A major problem was that it is very expensive to get into a scheme. The main cost comes from the fees that farmers pay to land agents to create a Farm Environment Assessment (FEA), a requirement of the application process. These costs are very high, especially given the possibility that an application might be rejected, and money lost. Secondly, many of the farmers seemed not to know that money is available to help cover the costs of the assessment (applicants can claim back up to £600 but this may not be enough as the minimum figure quoted for an FEA by an interviewee was £700). A third problem mentioned was the limited budget available for AE schemes in Scotland, leading to a restricted number of farmers being able to utilise the scheme. This was counter to a suggestion by stakeholders in England that an element of competition regarding which applications get funded would mean that farmers needed to raise their game to qualify for funding. Lastly, farmers identified issues with the way that AE scheme subsidies were allocated.

It was felt that the current system – effectively a ‘points mean prizes’ scheme - benefitted larger estates as they are able to put aside more land and so accrue more points. This meant that smaller farms felt they were less likely to be successful and so did not apply.

Scottish respondents said that more money for AE scheme advice would improve accessibility. They explained this could help to lower the cost of the application through reduced agent fees and would reduce competitiveness, save farmers a significant amount of money and make the AE scheme application process easier to follow.

Respondents in other countries also had concerns with the accessibility of AE schemes. Some Dutch and Flemish farmers felt that the designated areas for AE schemes for arable farmland wildlife are too rigid. The English respondents had a similar opinion, and thought it would be better if AE schemes targeted farmers who want to undertake them, not just those in the "right" region. The one instance that geographical targeting was considered in a positive light in England was targeting for upland areas – which interviewees saw as needing the extra support to retain farming (mainly grazing/livestock) in these low production areas.

In the interviews, across several countries, several respondents gave their views on how AE scheme subsidies which benefit farmland biodiversity relate to other systems, funded and non-funded.

In the Netherlands, according to a stakeholder, the AE scheme budget is "just a drop in the ocean" and insufficient to prevent further farmland biodiversity declines. They thought it would be better to make AE schemes part of a more integrated vision for nature inclusive farming. In Flanders, a policy maker mentioned that it is unfortunate that AE schemes are the only instrument for nature in agricultural areas. A similar response was noted in England, where several interviewees brought up the fact that farmers can deliver for wildlife without using AE schemes. Several stakeholders wanted to explore other ways of supporting farmland biodiversity, as some saw AE schemes as a blunt tool that was overly relied on. Stakeholders responded by asking if we should avoid pinning all our hopes for farmland recovery on AE schemes? After all, some farmers are delivering for wildlife without AE schemes or are going over and above what is required for the provision of their AE scheme options".

In the Netherlands, England and Belgium it was suggested that consumer demand should play a greater role instead of AE schemes as "Farmers can benefit financially from involvement in AE schemes." [with higher prices for their products]. According to English respondents this could also benefit the quality of the AE schemes. Examples given of this type of benefit included measures to conserve soils, and the use of habitat to provide integrated pest management or pollination services. Cutting across all this discussion of increasing scheme uptake was the response of some policy makers in Germany (Lower Saxony), who believed that AE schemes should be a compulsory measure, not a voluntary one.



ADVICE ON AGRI-ENVIRONMENT SCHEMES

In England when applying for an AE scheme it's possible to get free, but limited, advice through Natural England (NE) and the Farming Advice Service (FAS, funded by DEFRA and the Rural Payments Agency (RPA)). More extensive paid advice can be obtained through NGOs such as LEAF, FWAG, GWCT or other private advisors, often working through links with these NGOs.

In Scotland there is no free advice beyond the written AE schemes guidance. Advice during the application and implementation phases has to be paid for.

In Germany, the Landwirtschaftskammer gives free but limited advice on AE schemes. Extra advice is possible to get for free at UNB (Untere Naturschutzbehörde, a lower nature authority) and at Landschaftspflegeverband (NGO).

In the Netherlands in order to have an AE scheme, farmers must be a member of a farmer collective. The farmer collective gives personal guidance to the farmers.

In Flanders, the Flemish Land Agency (VLM) employs AE scheme advisors who give free, personal advice and guidance to farmers and collectives often employ ecological advisors for (limited) free farmers support. Private advisors and advisors from agricultural companies can provide paid support.

BoerenNatuur, the national organization of farmers collectives provides information on AE schemes to farmers collectives and stimulates knowledge exchange .

Respondents in Flanders and the Netherlands were positive about the AE scheme advice provided to farmers. As mentioned above, in the Netherlands people are positive about working with “collectives” because they bring farmers together. They offer farmers a platform for consultation and motivate them. The collectives develop the measures together with the farmers, meaning they are flexible and can adapt measures where necessary. In Flanders they work with “AE scheme advisors” who guide farmers, individually, when starting an AE scheme and further through the duration of the agreement. Flemish interviewees said that the AE scheme advisors are important in transferring knowledge on nature to farmers and they are considered to be bridge builders between agriculture and nature.

Additional to the problem in Scotland with farmers’ access to AE schemes, there is also the problem of farmers’ access to advice and paying for it as mentioned above. There also seemed to be a belief that there is a lack of advisors on the ground who can help with the complex schemes. Scottish respondents said some advisors “have a lack of common sense when it comes to practical farming” and that some advisors simply did not know enough to provide the right advice, indicating a need for advisor training. In England, advice was appreciated, with a need identified for good environmental advice – either quality advice from government or funding for private advisors.

Regarding advice, German (Lower Saxony) respondents said that the government should provide more funds to give advice to farmers. In the Netherlands, one farmer said that his collective focusses too much on the so-called “forward thinkers (or farmers who like to try new things)” and don’t pay enough attention to the “followers”.



DESIGN OF THE MEASURES INCLUDED IN AGRICULTURAL-ENVIRONMENTAL SCHEMES

In England, Natural England and Defra design the AE schemes. In Scotland, the design is done by the Scottish Government following suggestions put forward by NatureScot. Some NGOs, farmer's representatives (National Farmers' Union of Scotland etc.) and researchers provide input as well.

In Germany, Lower Saxony, AE schemes are designed by the National Ministry of Food, Agriculture and Consumer Protection.

In Flanders, VLM designs AE schemes based on the input of INBO and the Agency of Nature and Forest, and during the process of design all relevant stakeholders are consulted. The final AE scheme rules are decided by the Flemish Government.

In the Netherlands, the farmer collectives propose the measures of AE schemes which are reviewed by a panel of experts and must be approved by the Provincial government.

English respondents said the AE scheme options for birds in ELS/HLS were good, though many considered that the options for pollinators were really bird options in disguise. One newer AE scheme option that did get positive reviews was supplementary feeding, which many of the interviewed farmers viewed in a positive light.

In Flanders, several respondents proposed involving farmers to a greater degree in the design of the management plans and AE schemes for an area – especially those farmers that have a lot of measures in that area. English respondents also suggested farmers should be more involved in designing AE scheme inspections and monitoring outcomes, and that they should receive more feedback.

In Scotland, suggestions were mainly aimed at adapting AE schemes in order to encourage more farmers to take part. Many participants felt that if the schemes were made simpler, farmers could be more pragmatic in the implementation of measures, less inspections would be necessary and more money could be used for biodiversity, due to savings on administration. Scottish respondents felt that AE schemes in England are better as they are more flexible and offer better support. In Flanders and Germany (Lower Saxony) some respondents felt the measures were too generic. One respondent felt that “different areas need different measures” and that specific local conditions are not addressed, while another felt “Farmers and nature are diverse, so measures should also be diverse, otherwise everybody ends up doing the same thing” so that measures better fit individual farmers' requirements.

In the Netherlands, respondents suggested that the scope of AE schemes should be broadened. It should include measures to improve soil quality, suppression of diseases and taking care of the landscape and climate.

In Germany (Lower Saxony), a researcher even asked to align AE schemes with the Natura 2000 directive. This would mean that nature conservation and agricultural policy could reach the goals of the habitat directive, which they are not meeting at the moment.

In Flanders, respondents suggested rotating measures over time on a plot and working with fallow land. In England, there is a demand to include rewilding in AE schemes, having more options geared towards improving soil and helping alternative tillage systems and, to include subsidies for legal predation control during the spring breeding season to help eggs and chicks of declining farmland birds. Some Scottish respondents also thought legal predation control should be part of AE schemes.



MONITORING OF AGRI-ENVIRONMENT SCHEMES

Agri-environment schemes are an instrument of EU Policy (CAP pillar 2) and, as in all EU funding systems, the EU obliges the participating countries to provide statistics regarding uptake. For the subsidy system supporting AE schemes, the figures which each country has to collect are the uptake (number of farmers) and coverage (area per measure) of AE schemes in their country or region. However, these statistics don't give information on the quality of the habitat created by AE schemes or the response of biodiversity where the measures are installed. In England and Scotland there is currently no standardised biodiversity monitoring, though some funding of ecological monitoring projects does occur. In Germany (Lower Saxony) biodiversity monitoring is done by the state office of Lower Saxony, in Flanders INBO is responsible for biodiversity monitoring of AE schemes and in the Netherlands, two types of monitoring are carried out (national policy monitoring and regional management monitoring (In Dutch: beleids, en beheermonitoring). The first type, policy monitoring, is carried out by the national government to evaluate the ecological effectiveness of AE scheme policies, by comparing biodiversity trend in areas with and without AE schemes. The second type, regional management evaluation, is carried out by the farmers collectives to evaluate the optimal management of AE scheme measures (in the correct way at the right locations). In both types of monitoring in the Netherlands, volunteers play a very important role in data gathering.

A pitfall identified in the interviews in all countries/regions of the partners of the PARTRIDGE project was the lack of monitoring of the results of the measures in AE schemes. Monitoring would provide information on whether the AE schemes are working or not and would help to improve the measures. All respondents agreed on the fact that monitoring is important. Moreover, in Flanders, several stakeholders said there is too little monitoring and certainly not enough to know the effect of AE schemes. In the Netherlands the criticism is that there is either no monitoring or the monitoring that is done focuses mainly on birds.

One suggestion from England was for research into finding passive means to monitor how much biodiversity is produced by AE schemes e.g. using bat acoustic monitors etc. In Scotland, it was suggested that if farmers carried out monitoring on their farms, it would increase their level of engagement, show what the AE scheme is trying to achieve and improve their ecological knowledge.



LENGTH OF AGRICULTURE-ENVIRONMENT SCHEME AGREEMENTS

The length of an agreement of an AE scheme is five years in Flanders, Scotland, Germany (Lower Saxony) and England. In England there is the possibility to extend it to 10 years for more complex AE schemes. In the Netherlands, agreements of AE schemes are for 6 years.

Regarding the length of the AE scheme agreements, some respondents in Flanders, the Netherlands and Scotland expressed their satisfaction. However, in Flanders some, and in Scotland most, respondents felt that the period of five years is a minimum for a farmer to make the investment in knowledge and equipment profitable. These respondents also felt some measures take a significant amount of time to be beneficial for nature. In Germany (Lower Saxony), some farmers asked for more flexibility regarding the length of the AE scheme agreements in general.



INSPECTIONS OF AGRICULTURE-ENVIRONMENT SCHEMES

In England, inspections of AE schemes are undertaken by the Rural Payments Agency (RPA) with the support of Natural England (NE).

In Scotland, the Scottish Government Rural Payments and Services department (SGRPS) is responsible for inspections of AE schemes.

In Germany AE the approving authority, the Landwirtschaftskammer is undertaking the inspections of AE schemes.

In Flanders, the inspections unit of VLM does the inspections of the correct implementation of the measures, whilst the Department of Agriculture looks at the crop, the width and length of the measure. The paying agency of the Department of Agriculture is responsible for the financial aspects.

In the Netherlands the farmer collectives perform inspections of the AE schemes, and, as in Flanders, width, length and the financial aspect are inspected by the Department of Agriculture (NVWA and RVO).

On inspections of AE schemes, respondents did not have a lot of positives to report. An exception was the Flemish respondents, where several said they were satisfied that inspections of AE schemes were successful and that the EU subsidies provided to farmers through AE schemes are correctly implemented. Flemish farmers with an AE scheme said they were not afraid of inspections. Flemish respondents would like advisors, who guide the farmer in their AE scheme, more involved when inspections of the measures are done.

In England, Scotland, the Netherlands and Germany (Lower Saxony), there were negative comments expressed on inspections of AE schemes. Dutch respondents said that the national inspections authority (NVWA) operates in a fashion too removed from farm practice, sticking to a countrywide office-based system. English, Scottish and German (Lower Saxony) respondents say auditors are too strict. German (Lower Saxony) and Scottish respondents suggested including more flexibility and advice when doing inspections. Moreover, the majority of the German (Lower Saxony) farmers and policy makers felt that inspections are often unjustified and flawed. The concerns around inspections often keep farmers from taking up AE schemes.

SUMMARY: ORGANISATION AND DESIGN

Organisation

Many Flemish and German (Lower Saxony) respondents indicated that they are satisfied with the implementation of AE schemes and how they are organised by their government. In the Netherlands respondents mentioned there was a broad consensus that the organisation of AE schemes through farmers' collectives was an improvement over what was done previously and that the collectives are seen as more trustworthy than government. Some German (Lower Saxony) respondents felt that farmers should have more input on how AE schemes are organised. Flemish respondents considered it an advantage that AE schemes are run within the government and they value the assistance of VLM AE scheme advisors. In Scotland, farmers with an AE scheme thought that the government was the right organisation to run AE schemes, but they are not doing the job well. In England, perhaps the most positive statements about the organisation and design of AE schemes were in reference to previous systems and AE scheme designs.

There are widespread concerns about bureaucracy (identified as costly and leading to a lack of local control) but a sense particularly from England that governmental departments needed to be sufficiently resourced to make schemes work. The need for regional or local involvement was highlighted across several countries, even those with some regionality already wanted more of it. The general feeling was that this would result in AE schemes tailored to local conditions and better outcomes for wildlife.

Concerns were raised, however, over both the targeting of the AE schemes due to region and the wildlife to be targeted, and the use of points systems that favoured larger, more wealthy farms and estates.

Looking forward, some respondents thought that AE schemes were not the only way forward for conservation. They suggested that it would be worth exploring other ways of encouraging wildlife-friendly farming, while several respondents espoused the opposite view – a compulsory AE scheme.

Advice

Respondents in Flanders and the Netherlands were positive regarding the provision of advice. For the Dutch respondents, this was because the farmer collective works at a regional level, and adapts AE schemes to regional needs, and because the collective brings farmers together and gives them a platform for consultation, which motivates them. The Flemish respondents stressed that the AE scheme advisors have an important role in providing knowledge about nature to farmers. Scottish respondents pointed out that there seems to be a problem with access to advice and with the competence of the advisors. Some said providing more money for AE schemes could help solve the issue with access to advice. Also, some German (Lower Saxony) interviewees suggested there should be more funding for AE scheme advice to farmers, to encourage uptake.

Design

Flemish, German (Lower Saxony), and English respondents suggested increased involvement of farmers in the design of measures, and giving farmers more feedback in inspections and monitoring. In Scotland, many suggested making the AE scheme measures simpler in order to encourage more farmers to take part.

In the Netherlands, many respondents suggested broadening the scope of AE schemes, suggesting they should include measures to improve soil quality, suppression of diseases and taking care of the landscape and climate. In addition, German (Lower Saxony) farmers suggested e.g. legume cultivation, row spacing, reduced fertilization and mixed cultivation as possible measures to include in AE schemes.

In Flanders and Germany (Lower Saxony) some respondents said the measures are too generic and that they wanted to refine the measures within an area or region to make them more applicable locally. In Flanders, respondents suggested rotating measures over time on a plot and working with fallow land.

In England, there was an interest in including at least some rewilding type measures in AE schemes and to include subsidies for legal predation control during the spring breeding season.

Monitoring

All respondents agreed that monitoring is important, but all respondents complained of a shortage of monitoring of biodiversity of AE schemes.

Length

On the current length of the agreements of AE schemes there were few negative responses. However, in Flanders some, and in Scotland most, people felt that the time period of 5 years is a minimum for biodiversity to show a response.

Inspection

Respondents of all countries were mostly negative about AE scheme inspections, except in Flanders where farmers were not afraid of inspections. The negative comments of the respondents were related to the inspecting authority not understanding normal farm practice and being too strict. German (Lower Saxony), Scottish and English respondents suggested including more flexibility and advice when performing inspections



Establishment and management of new beetlebank at Oude Doorn demosite © Jochem Sloothaak



Establishing beetle banks Isabellapolder © Korneel Verslyppe

3.2 THEME EASE OF IMPLEMENTATION

In the interviews we asked for the respondents' opinion on the practical aspects of implementing AE schemes. We received most of the information regarding this topic from farmers and hunters because they are the ones implementing and managing the measures in practice. The results are summarized into three topics: integration of the measures into farm management, complexity of the measures and flexibility of the measures.

LEGAL IMPLEMENTATION RULES

Table 2 Blocks and/or strips of cover were established on demonstration sites in the five countries represented in PARTRIDGE at the outset of the project, but the name and implementation rules in each country varied⁵.

⁵ Caution is needed when comparing measure management between the partner countries. The different suite of measures available in each country will dictate which measure(s) was/were considered appropriate for establishing the new habitats in the demonstration sites across PARTRIDGE and also which ones farmers commonly use for these plots. As some of the measures used might have been originally designed to address other ecological needs, for example winter food, there may be differences in the management allowed.

	<i>England</i>	<i>Scotland</i>	<i>Germany (Lower Saxony)</i>	<i>Netherlands</i>	<i>Belgium (Flanders)</i>
Measure name	Wildbird mixes Floristically enhanced margins	Wild bird seed for farmland birds	Flower block	Herb rich field margin	Unharvested cereals
Width	Min. 6m Min. 0.4ha Max. 5ha	Min. 6m Max. 2ha per block/strip No more than 5ha on units ≤250ha, or 10ha if >250ha	Min. 6m Max. 30m Max. 2 ha	Min. 3m No maximum defined	A (part of a) parcel (not defined)
Manure	Allowed with similar rules as for cropped land	A small amount of fertilier (farmyard manure is preferred) is possible except for farms in nitrate vulnerable zones.	Not allowed	Not allowed, unless for margins sown with herbs or cereals and at least 9 m wide	Not allowed
Pesticides	Not allowed except for spot treatment or upon receipt of a derogation pre- emergence or when establishing seed bed (i.e. glyphosate)	Not allowed except for the spot- treatment of injurious weeds or treatment of invasive species (both require permission)	Not allowed	Only possible according to a protocol	Not allowed except spot-wise (thistle)
Other	Farmers need to provide documentation of management The plots can be moved around on an annual basis	Maintain a diary Can be moved around on an annual basis Must sow a new plot each year. Old plots can be kept but will not receive funding	In case of problematic weeds: cut with a minimum height of 20 cm allowed between 15th of July and 1st of September	-	-

INTEGRATION OF THE MEASURES INTO FARM MANAGEMENT

Flemish farmers and stakeholders indicated that farmers give more priority to their traditional crops than to their AE schemes on their farm. Some said farmers first carry out the regular business tasks and then the tasks associated with the AE schemes, leading to problems such as inappropriate mowing dates.

A Scottish farmer not taking part in an AE scheme suggested that if you staggered the timing of when measures need to be implemented, it would be easier for farmers to manage rather than putting them all in at once. One farmer commented that farmers are running a business, and so it is important that AE schemes fit in with them, around the business.

Several English interviewees said that farmers found it easier to incorporate AE schemes into their farming business where they were using it to do something they already wanted to do. This ranged from conserving grey partridges - with some having the stated goal of establishing a wild grey partridge shoot - to an interest in conserving other farmland songbirds and waders, such as turtle dove or lapwing.

Flemish and German (Lower Saxony) farmers considered it a positive development that the width of the AE scheme measures could be adjusted to the machinery they use for the management of the measures. Flemish respondents stated it's important that farmers think in advance about aspects such as which machinery to use for the maintenance of measures or what to do with the grass cuttings they may generate from that management before they sign up to AE schemes.

A problem highlighted by some Flemish respondents was that some farmers don't have any use for the grass cuttings themselves. To address this problem, they often call on another farmer to do the mowing and, in return, the farmer doing the mowing gets to keep the grass cuttings. A Flemish stakeholder suggested that policy measures should be developed to help manage the grass cuttings for farmers who are unable to use them themselves. A Dutch farmer said collectives should coordinate more on this issue, for example setting up a joined-up system to make sure all margins get cut, and cuttings removed and used.

German (Lower Saxony) respondents said it's not easy to sacrifice an area for AE schemes for several years as it may be needed for crop rotation. However, in spite of this, flower strips are still popular with German (Lower Saxony) farmers. Reasons mentioned were that these flower strips are sown annually, easy to relocate and they can be used to make irregular field borders more regular. It was also stated by most farmers that the landowner can stop the farmers for taking up an AE scheme, because landowners are afraid of their reputation or they fear that the plot gets a higher weed pressure.

In the Netherlands, one farmer said he didn't like overwinter stubble because it tends to become weedy and doesn't attract much wildlife, in his opinion. Another Dutch farmer didn't like multi-year field margins because he doesn't have suitable machinery for the management of these and it required more labor input, which doesn't fit into his farm management plan.

A Scottish advisor and a Scottish farmer not in an AE scheme felt that farmers have a lot of control over the location where they put the measures. Two of the Scottish farmers with AE schemes felt that, although it was complicated to administer, the scheme itself was easy to follow and it helped them to implement measures they wouldn't have done otherwise.

Several Flemish farmers indicated that AE schemes help them to comply with rules that they would have to follow anyway, such as the regulations regarding manure legislation which prohibits farmers from putting manure on a strip of land 5 m to 10 m along the edge of watercourses. When they combine the strip of 5 m to 10 m with an AE scheme it helps them to follow the manure legislation, and they get financial compensation as well.

COMPLEXITY OF THE MEASURES

Considering all interviews, many farmers and some stakeholders (those who were neither a farmer nor hunter) thought that implementing the measures was complex.

Flemish respondents said that the rules are clear to some farmers but not to all. A Flemish farmer suggested it would be good to invest in a system to help farmers remember when to do what task: e.g. by using an app on their mobile phone.

According to Flemish and German (Lower Saxony) respondents the complexity of implementing the measures seems to be more of a problem for farmers who have several types of measures, sometimes with applications needed in concurrent CAP periods on often slightly differing measures. This can lead to confusion and mismanagement.

A German (Lower Saxony) farmer wished the time period covering his AE scheme did not include two time periods of CAP legislation but only one. This is because, according to him, it makes the application for and implementation of an AE measure extra stressful, and more time for consultation and guidance is needed. Regarding the subject of enrolment dates, English respondents said that they find the current system of one enrolment date in a year less useful – they preferred the old system of several enrollment dates across the year.

There was an appreciation among English respondents that farmers who had previous experience or knowledge of AE schemes were better able to manage complicated AE options or to deal with changes to the management of AE options when transitioning between different schemes (HLS schemes moving to Countryside Stewardship for example). Some English interviewees acknowledged that some options are difficult and off-putting but have high biodiversity benefit e.g. conservation headland/beetle bank, with one stating "It's not for the faint-hearted." Other options were considered easier – this likely reflects support for the old Entry Level Scheme (ELS) that paid well for options that were easy to implement – such as changes to hedge mowing etc.

Many Scottish respondents felt that the complexity of the AE schemes makes them difficult for farmers to understand and therefore hard to implement. One issue of increased complexity mentioned was the amount of bureaucracy associated with AE schemes. This increases the time and the money required to implement the AE scheme and is difficult to understand, which respondents felt was responsible for putting farmers off joining a scheme.

Similar opinions were expressed by English interviewees, saying that perhaps the biggest pitfall was the level of bureaucracy involved in AE schemes, particularly in the enforcement of AE scheme requirements with overly officious surveyors, who often had little hands-on knowledge of what measures within the AE scheme were supposed to provide and how they should be established.

A suggestion by an English interviewee was to provide demonstrations of how management of AE schemes improves biodiversity. If people can see the improvement to biodiversity implemented on the ground, they will find implementing AE scheme measures on their own land easier. It is worth noting here that PARTRIDGE fulfils this suggestion through its demonstration areas.

Many Scottish respondents felt that making AE schemes simpler would have several benefits. These included increasing understanding amongst farmers and the public, making them more attractive to farmers, and reducing the amount of time required for auditing, saving time and money for the farmer and auditors.

In the Netherlands, farmers collectives often organize farm walks for farmers participating in AE schemes, to discuss all aspects of establishment and management of AE scheme measures, and to exchange experiences and good examples. This helps farmers to better understand the measures and how to best manage these.

FLEXIBILITY OF THE MEASURES

Several respondents across Flanders, Germany (Lower Saxony), England and Scotland mentioned that they have issues with the strict dates in the AE schemes. For example, some German (Lower Saxony) respondents said AE scheme contracts have rules that include certain dates, but they explained it's not always possible to capture nature with dates. Several Flemish farmers asked for more flexibility in the mowing dates depending on the weather conditions or the breeding season of the birds. One suggestion was to make it possible to request a deviation on these dates, perhaps by providing photographic material as justification. An English respondent noted that the sowing dates were often chosen impractically in relation to weather conditions and geographical location. Many English respondents felt the decision of when to sow would be better left to farmers to decide, based on local conditions, with some written guidance to help make that decision rather than prescriptive dates.

Another problem pointed out by respondents across the partner countries was difficulties in dealing with problem weeds. Dutch farmers said they were concerned about some persistent weeds because the means to control those are restricted. Another Dutch farmer pointed out an inconsistency for organic farmers. He said herb-rich field margins are good for nature but when a margin is ploughed it makes it hard to control the weeds in the subsequent crop. The English partners noted the issue of a lack of suitable active ingredients in pesticides, with the loss of these ingredients, through changes in regulations, affecting management. This could be a problem if ingredients that were vital in the management of specific options were no longer available. Regarding weeds, in Flanders a lot of attention was given to the mandatory control of thistles due to federal legislation.

Flemish farmers said it's a difficult and time-consuming job. Some stakeholders (not farmers), felt that this federal law was outdated.

Some Flemish respondents, particularly non-farmers, suggested that the seed mix for grass margins should contain more herbs than they do now because these make them more diverse, provide seed, attract insects, keep the strip open, provide shelter and give a better structure to the habitat for farmland wildlife. They said the current seed mixtures contain a certain proportion of herbs if the farmer asks for it, but it would be better if there was a mandatory requirement that the seed mixtures contain a high proportion of herbs.

On the other hand, Flemish farmers thought the seed composition used in the grass margin management agreements should be adapted to provide better forage possibilities for livestock – for instance by mixing clover into the seed mix.

German (Lower Saxony) and Flemish respondents suggested it should be possible to move the location of measures during the time of the contract. This could help in tackling problem weeds and it wouldn't have a negative effect on wildlife as wildlife is mobile, provided the timing of the move is appropriate.

In Flanders, if a farmer's parcel is not within a designated area for AE schemes for farmland wildlife, they cannot get subsidies to implement measures for biodiversity. One of the Flemish farmers interviewed expressed regret that it was not possible to be more flexible with the delimitation of the management areas for arable farmland wildlife.

A problem perceived by some of the Scottish participants was the lack of flexibility within the AE scheme. One farmer thought that the strict nature of the schemes meant that it is a lot easier for farmers to make mistakes. The Scottish policy maker interviewed agreed, saying that we have 'killed ourselves with over-prescription'. Similarly, a variety of the interviewees also felt that it takes some farmers more effort to implement measures than other farmers and this disparity was not addressed in the current system.

English interviewees did not think that incorporating more flexibility should result in a lack of adherence to the rules. They believed that there needed to be flexibility in how these rules were applied, with an emphasis on getting the biodiversity benefit that the AE scheme was directed towards, as opposed to a rigid adherence to rules.

Another suggestion of a Scottish respondent was that if you give farmers more ownership, it could give them both greater flexibility and engagement with what they are trying to achieve with the schemes.

SUMMARY: EASE OF IMPLEMENTATION

When the respondents reflected on implementation of AE schemes for farmland wildlife, they highlighted the difficulty of integrating these measures with farm management. Some suggested that staggering the implementation of measures would make this easier for farmers than requiring them to put them all in at once.

Another aspect was having the machinery suitable to implement AE measures. Flemish and German (Lower Saxony) farmers said it is positive that the width of the measures can be adjusted to the equipment they use.

Some Flemish and Dutch farmers, who didn't have livestock, raised the problem of not having any use for the grass cuttings resulting from the management AE measures. A Flemish policy maker suggested policy options should be developed to handle this problem. In the Netherlands a farmer said the collectives should help to coordinate this.

Location of the measures on the farm was another concern of respondents. Scottish participants were positive that they have a lot of control over the location of the measures while some German (Lower Saxony) and Dutch interviewees were not in favour of multi-year field margins because they fear problems with weeds, and the loss of arable area for crop rotation.

Flemish respondents mentioned that Flemish farmers do not give a high enough priority to their AE scheme in their farm management, and this leads to problems such as difficulties in meeting the strict mowing dates of the agreement.

In Germany (Lower Saxony) it was also stated by most farmers that the landowner can stop the farmers for taking up an AE scheme, because the landowners are afraid of their reputation or because of extra weed pressure.

English interviewees said farmers found it easier to incorporate AE schemes into their farming business where they use it to do something they already wanted to do: e.g. conserving grey partridge or other farmland songbirds and waders. Something similar was mentioned by Flemish farmers who are positive towards AE schemes because they help them to comply with other rules concerning nitrate control and "they get compensated too".

Throughout all interviews, a lot of farmers and some stakeholders (those that were not a farmer or hunter) said that the measures are complex to implement. Many respondents said that there was some variation amongst farmers in their understanding of the rules. Flemish and German (Lower Saxony) interviewees said this has to do with the fact that some farmers have a variety of measures that originated in different CAP periods with often slightly different management techniques required due to different CAP rules. Scottish and English farmers felt the complexity of the schemes makes them difficult to understand and hard to implement. English respondents said that farmers who had previous experience or knowledge of AE schemes were better able to manage complicated options. English interviewees said that perhaps the biggest pitfall was the level of bureaucracy involved in AE schemes, particularly in the enforcement of scheme requirements with overly officious surveyors.

Scottish respondents suggested making AE schemes easier to understand and less complex. This would have a number of benefits: e.g. increasing understanding amongst farmers and the public, making them more attractive to farmers and reducing the amount of time required for auditing. An English interviewee suggested providing best practice demonstrations of how good management of AE schemes improves biodiversity – this is something that is done in the PARTRIDGE project.

Several respondents mentioned they have problems with the strict dates included in the AE schemes. A Flemish respondent suggested creating a mobile app to help farmers remember when to do various management tasks associated with measures. Farmers would also like to be able to ask for a deviation to perform certain tasks on certain dates, especially when the weather was too wet or too dry. One said "Nature cannot be captured into fixed dates." A Scottish farmer thought that the strict nature of the schemes meant that it is a lot easier for farmers to make mistakes, making the scheme less attractive. The Scottish policy maker agreed saying "We have killed ourselves with over-prescription."

Another problem pointed out by respondents across the partner countries, was the management of persistent weeds. German (Lower Saxony) and Flemish respondents said it would be helpful to be able to move the location of measures during the time of the contract, rotating them around the farm to allow for weed control. The English partners noted that the loss of active ingredients in herbicides, through changes in regulation, might affect management of AE schemes.



Diemarden Visit by Birgit Honé, Member of Parliament Lower Saxony © Daniel Schmidt

3.3 THEME PAYMENT

In the structured interviews, we asked questions about the payments farmers receive for AE schemes that are directed towards wildlife on arable farmland and about the system used to calculate these payments. We divided the opinions of the interviewees into the following topics: the amount of payment, the current system for calculating payments, suggested alternative systems of calculation, the governmental administrations involved in calculation and distribution of the payment and, finally, the proportion of the available budget that is allocated for AE scheme funding.



THE AMOUNT OF PAYMENT

The payments given to farmers to implement AE schemes for arable farmland wildlife vary among the partner countries. Member states set the level of the remuneration in their rural development plan. Each country has a slightly different system of calculating these payments and each country uses different revenues and costs in these calculations. According to European legislation they may also vary the compensation for AE schemes according to local conditions in the country and some countries allow this in their calculation of the compensation. The local conditions taken into account are farm characteristics (e.g. size, degree of specialisation) and land prices. These vary a lot between PARTRIDGE regions which influences gross margins of farmers in the different areas. In order to illustrate how these differences result in variations in the amount of money received by farmers, we compared the payments provided to farmers in the partner countries for the AE scheme option that was established on all the demonstration areas in the PARTRIDGE project – blocks of wild bird cover. As the interviews took place in 2018, we used payments that were current at that time. In England and Scotland, a farmer received a payment of 639 euro/ha for flower rich margins and plots. The region of Lower Saxony (Germany) provides a basic payment of 875 euro/ha which can be increased to 975 euro/ha when this type of AE scheme option is chosen by Landcare Association (LPV) or when the farmer works together with a beekeeper. In the Netherlands there's a different amount for these options on a clay soil (2530 euro/ha) versus on sandy soil (2021 euro/ha). In Flanders, the payment for the AE measure 'unharvested cereals' (how these options are paid for in this region of Belgium) is 1931 euro/ha. In all countries, these payments are contingent on these plots being created and managed appropriately.

Considering the respondents from all of the countries involved in PARTRIDGE, those from the Netherlands and Flanders were most satisfied with the level of remuneration of AE schemes for arable farmland wildlife. Many of the English interviewees considered that the payments for most arable AE scheme options were fair. One Scottish farmer mentioned the advantage that the money AE schemes provides him is a guaranteed and low risk source of income. However, there were also many English and Scottish interviewees who felt that the payments did not cover enough of the cost of implementation and maintenance of options.

Amongst English interviewees there was also a perception that those undertaking AE schemes should be paid more for providing more of a “public good”. In Germany (Lower Saxony), most of the respondents felt the payment should be higher.

Currently all partner countries bar one use one fixed payment for AE schemes for arable farmland wildlife, in general. The exception is the Dutch, who make a distinction between AE schemes on a clay soil or on a sandy soil. Flemish respondents considered it acceptable that payment amounts were the same across the region as Flanders is a small region with little variation in agronomic conditions. However, across all surveyed countries, there were respondents who were in favour of varying payments for AE schemes to reflect differences in soil type or other circumstances. For instance, English respondents considered that English upland farmers, whose farm operations are mainly low intensity grazing, are most at risk of farm abandonment (especially post-Brexit). Higher AE scheme payments could encourage them to continue farming and ensure continued support for species reliant on their low intensity management. Scottish respondents said that AE scheme payments needed to be increased for farmers on higher grade land where the profits gained from farming far outweigh the payments provided by AE schemes. One Dutch policy interviewee noted that the current AE scheme system already allows flexibility in payments and that he would welcome even more regional variation in payments.



THE CURRENT SYSTEM OF CALCULATION

The calculation of the remuneration of AE schemes is regulated by European legislation (with the exception of the UK after Brexit). According to EU implementation rules, the payment should compensate farmers for loss of income (income forgone), all or part of the additional costs and transaction costs. Member states can justify any additional costs in their rural development plan. We compared the systems of calculating payments between the partner countries. All countries compensate for income foregone and additional costs but the means of calculating the additional costs vary between the countries. For example, in England the additional costs consist of cost for establishment, seed, topping, nitrogen and herbicide, while in Flanders, the Netherlands and Germany (Lower Saxony) the additional costs cover labour and handiwork. Not all partner countries, for instance England, Scotland and Germany (Lower Saxony), incorporate transaction costs in the AE scheme payment.

One reason for the insufficient payments, put forward by the English interviewees was that the low level of commodity prices used to calculate income foregone did not reflect the actual commodity prices. This perception was considered by many interviewees to be more widely applicable to predicted changes in subsidies post-Brexit.

One Flemish policy maker disagreed with the current calculation of AE scheme payment in Flanders. He said “Compensation should be paid for the effort made by the farmer and not for the loss of income, as the farmer voluntarily entered an AE scheme.

Under the current system the farmer is compensated twice, both for the effort and the loss of income. It is a high level of compensation for a voluntary system. It gives a guaranteed income for 5 years with little risk." Another Flemish(?) stakeholder added "AE schemes are a pillar 2 instrument, hence it has the ambition to maximize the flow of financial resources to agriculture."

SUGGESTED ALTERNATIVE SYSTEMS OF CALCULATION

In all partner countries there were respondents, including farmers, who were favourable towards a system of result-based payment. These included German (Lower Saxony) interviewees who said it would be best to focus on wildlife, ecosystems or environmental achievements. A Flemish policy advisor suggested an approach that included a system of increasing levels of compensation, reflecting the results for nature, perhaps using a mobile app to provide proof of positive outcomes for nature.

Many respondents pointed out, however, that a scheme based entirely on results would be extremely difficult to manage due to the number of variables that could influence outcomes. It was also considered to be difficult for a government as the amount of money required each year would be variable and difficult to budget for. In the Netherlands, several of those interviewed rejected result-based payments as each farmer delivered the same effort, therefore the compensation should be the same. Both Scottish and Flemish respondents put forward a top-up system, where farmers would receive a bonus payment, in addition to the normal AE scheme payment, when they achieve good biodiversity results. This was similar to a suggestion put forward by one German (Lower Saxony) respondent and another in Flanders, who suggested giving a bonus payment to farms with a high proportion of AE schemes, suggesting to "give those farms a higher financial incentive, more compensation to show appreciation". The Scottish businessman interviewed, felt that farmers could be incentivized directly by companies to grow food sustainably, which could make them more likely to take up AE schemes. Another suggestion from an English respondent was to work with some form of competitive payments – an example was the Australian system where farmers offered up what they were prepared to do for agri-environment, what they would achieve, and the costs associated with it. The best value bids won the funding to put their plan into action.

Amongst German (Lower Saxony) interviewees there was a consensus that remuneration should be paid on a regional scale, taking into account regional soil quality.



THE GOVERNMENTAL ADMINISTRATION INVOLVED IN CALCULATION AND DISTRIBUTION OF THE PAYMENT

In England the Rural Payments Agency (RPA), makes payments to farmers on behalf of Natural England (NE) and the Department for Environment, Food and Rural Affairs (Defra). The RPA are responsible for calculating the payment and distribution of it at a farm level, NE advises on the calculation. In Scotland, the Scottish Government's Rural Payments and Services Agency (SGRPS), on behalf of the Scottish Government does the calculation and distribution of the remuneration. In Germany (Lower Saxony) this is done by the Ministry of Food, Agricultural and Consumer Protection. In Flanders (Belgium) the pre-calculation is done by VLM (the Flemish Land Agency), on behalf of the Department for Environment, but the paying agency makes the payment.

In the Netherlands payments are calculated by RVO (The Netherlands Enterprise Agency), who provide funding to the 40 agri-environment cooperatives. Distribution of the payment among the farmers is then done by these collectives.

The main criticism of the Scottish and English respondents concerned the administration of payments, with the issue of late payments for agri-environment provision. All English interviewees mentioned this, and the discussion often focussed on it, with many farmers having to wait years to get their payments. Not only did this put them off reapplying for AE schemes in the future, but was also seen as a main deterrent to their peers who were considering applying for AE schemes.

THE BUDGET ALLOCATED FOR AE SCHEME FUNDING

There was quite a bit of discussion about budgetary concerns in interviews in both England and Scotland. Scottish respondents reported a belief that most of the money is allocated to larger estates, as the scoring system in Scotland that controls who gets access to AE scheme funds gives more points to farms who can provide larger areas of land for AE measures. There is also a requirement for a management plan in order to apply for an AE scheme, which is difficult for farmers to do themselves, and advisors who help farmers to apply for the AE scheme are considered very expensive by those on small farms. Respondents suggested that land agents/advisors would be more willing to recommend the Scottish scheme (AECS) if more money was made available for it, and this would also make it more attractive to farmers. One other issue raised by several interviewees in both England and Scotland was the need for the government to continue funding farmer clusters. It was felt that farmer clusters were a valuable means to encourage farmers to take up AE schemes.

In Belgium, one Flemish farmer noted that a disadvantage of the Flemish system of AE scheme payments was the extensive government involvement, which led to a large overhead cost. This respondent considered that it would be much more efficient (both in terms of time and money) if these scheme management costs could be done by the farmers themselves.

There were a couple of more radical suggestions to address budgetary concerns. One German (Lower Saxony) respondent thought that transferring all or more of the budget of pillar 1 to pillar 2, allocating much more money to AE schemes, was the way forward. In contrast, one English interviewee suggested “to give up entirely on the idea of AE schemes being paid by the government”. They suggested that AE provision should be through a cross-compliance based system or it should be provided by farmers providing conservation benefits through individual interest without governmental compensation.

SUMMARY: PAYMENTS

There are big differences in remuneration of AE schemes for arable farmland wildlife between the partner countries in PARTRIDGE. Both the Netherlands and Flanders have the highest remuneration (more than 2000 euro/ha), England and Scottish the lowest (less than 1000 euro/ha) and with payments in Lower Saxony (Germany) between both these extremes.

For most English and Scottish respondents, where the payments are the lowest, it is important that, as a minimum, the payment covers the cost of implementing AE schemes, which they feel is not the case with the system currently. In Flanders and the Netherlands, most of the respondents are satisfied with the remuneration offered. Some Flemish respondents consider the money earned by AE schemes as a guaranteed, low-risk income. There was also a belief here that farmers will forget that AE schemes serve to enhance biodiversity, not their income.

Most countries work with one level of payment for each AE scheme option, except the Netherlands, where the local collectives may vary payments depending on priorities. Respondents from all partner countries, even in the Netherlands, see the potential for several payment regimes to encourage different AE scheme options in relation to local conditions in order to protect certain least-favoured areas from depopulation (e.g. upland areas in England) or to ensure that areas with high agricultural yields (e.g. high grade land) receive compensation that compensates farmers for potential loss of profit. This needs careful consideration. However, it was noted by some interviewees that the benefits for biodiversity of working with several payment regimes could outweigh the additional administrative burdens required by a variable payment scheme. They felt it is essential that differing AE scheme payments should not lead to a feeling of inequality amongst farmers when they put in the same amount of work in an AE scheme to produce the same biodiversity benefits.

There were differing opinions of result-based payments. Positive aspects mentioned were to produce enhanced results for wildlife and biodiversity generally, and to better engage farmers in the reasons for taking part in an AE scheme. Negative aspects put forward by respondents included difficulties with measuring the effects of AE schemes, or with governance and budgeting for such a system. The fairness of such a system was also questioned, as it may be easier for some farmers to get better results due to local conditions compared to other farmers who put in the same effort.

Some interviewees suggested a bonus payment for farmers with a high proportion of AE measures or using some form of competitive payments, where more effective applications compete with less effective ones. Other respondents were in favour of encouraging companies which could give farmers financial incentives to support those who grow food sustainably.

It is important that the administrators providing AE scheme payments do so in a timely and efficient manner, to support the uptake of AE schemes by farmers. For example, in England and Scotland there were significant problems reported with remuneration; poor distribution of remuneration had an adverse effect on the uptake of AE schemes. German (Lower Saxony) respondents see benefits in paying remunerations locally. The Scottish respondents noted that most of the funds available for AE schemes end up being allocated to larger estates, due to the AE scheme scoring system used in Scotland.

Both English and Scottish respondents thought it was important that part of the AE scheme budget should be reserved to fund farmer clusters, pointing out that farmer clusters encourage farmers into AE schemes. In the Netherlands, farmer clusters (collectives) are part of this country's current AE scheme management, although there are concerns that this leads to higher transaction costs.



Belgian farmers learning about plant species in UK AE measures © Korneel Verslyppe



Nesselroden demo site manager with local farmer © Sophia Thamm

3.4 THEME COMMUNICATION AND KNOWLEDGE

This chapter gives an overview of what the respondents said about communication and knowledge of AE schemes for arable farmland wildlife. In the interviews we asked respondents about their experience of communication surrounding AE schemes and their assessment of various stakeholders' knowledge concerning AE schemes for arable farmland wildlife. We interviewed a very diverse group of respondents, i.e. farmers who do and who do not hunt as well as scientists, politicians, people active in nature organizations and designers of AE schemes.

Although communication and knowledge are two topics closely related to each other and good communication is essential to gaining knowledge, we have tried to make a distinction between the information we collected related to these two topics.

COMMUNICATION

As farmers, some of whom also hunt, are the ones who implement AE schemes for arable farmland wildlife in the field, it's important they know both the subject of AE scheme communication and how this communication is directed towards them. We also found it interesting to learn about our respondent's views of AE scheme communication directed towards the public. Another important aspect was to understand how farmers (and associated stakeholders) communicate about AE schemes amongst each other.

Communication directed towards farmers

In several countries there was some criticism of the written communication associated with AE scheme guidance. Flemish stakeholders felt there was still room for more customized communication which could be more convincing and motivating, with less text and more images. Some English respondents suggested producing two versions of the written guidance currently provided to farmers and land managers, one for non-farmers as a communication tool to explain AE schemes to the public, and another for farmers containing more technical information. This contrasted with criticism expressed by other English farmers that the written communication provided for AE schemes was “overlong and complicated”.

Many interviewees across several countries said that the results of monitoring should be better communicated. English respondents said farmers like finding out the results of monitoring and getting feedback, particularly when they are coached rather than lectured to. English respondents also said farmers want scientifically sound information on the effectiveness of the AE measures and they like having direct access to experts who interact with them on their farms. A German (Lower Saxony) farmer said that results from research on AE schemes should be regularly communicated to farmers. The Scottish advisor we interviewed would also like monitoring results to be published as it would provide a benchmark for farmers to aim for and could be communicated to the public to show the good work that farmers are doing.

A similar comment was given by a German (Lower Saxony) stakeholder who said farmers don't receive enough feed-back, and that farmers need to be convinced of the effectiveness of AE schemes. It is important that the farmers themselves are satisfied with the result, so farmers can share their good experiences with AE schemes.

English interviewees underlined farmers' appreciation of learning opportunities, but there was a feeling that they disliked “being told” what to do. Farmer clusters were seen as a good means of doing this. In a previous section on organisation and design, there was a suggestion by some farmers and stakeholders to ensure inspections have an element of advice as well as inspections- this would help improve the provision of options and facilitate both learning and reduce distrust of inspections.

It was suggested by interviewees of most countries that farmers should receive specific training in AE schemes. Suggestions on where to do this included formally in agricultural colleges and through other means after formal education (informal after-school training or continued professional development). Several Dutch farmers interviewed mentioned that there should be more attention paid to biodiversity and conservation in agricultural education programs. Biodiversity conservation on farmland should be part of farming as a profession; the real challenge here is to get the knowledge in the heads of farmers.

In the Flemish interviews, respondents said that not all farmers or farmer representatives are positive or convinced about AE schemes and those opposed to them also communicate to farmers and spread negative, and even according to some respondents, false information about them.

Communication directed towards non-farmers

According to a Scottish interviewee more effort should be put into communicating what AE schemes are achieving to educate other farmers, the public and others. This could help to counter bad news stories about farming in the press. English respondents said there should be more cooperation and communication between farmers, between advisors and farmers, and between farmers with the public – Open Farm Sunday was the example provided again on how to do this. Dutch respondents considered it important that farmers themselves communicate the successes of AE schemes in farm walks or magazines.

Some Scottish respondents said there is no point in 'preaching to the converted', and that more effort should be made to get information on AE schemes into the mainstream media. There was no agreement on who should do this, with some feeling it should be up to the government and others that it should be organisations that are more trusted by the public e.g. farmer's unions, NGOs, etc. Flemish farmers where AE schemes were a part of their farm sales strategy, said that through the schemes they had a lot of contact with their customers and the AE schemes helped improve the appeal of their produce.

In Flanders, information panels are placed in the field, if farmers give their permission, to inform the public about AE schemes. German (Lower Saxony) respondents also said the public need to be more informed about AE schemes: e.g. with signs. They feel signs or panels near to measures could give information on how the farmer is helping nature and the fact that AE scheme strips should not be entered. Some Flemish farmers were positive towards information panels, but some indicated that the information panels do not have much effect because their strips were regularly walked through, disturbing wildlife despite these panels, and some other farmers preferred that their effort is highlighted without the provision of information signs.

Flemish farmers who also hunt said they are proud to show that they had AE schemes in their hunting area and surroundings. One even had an agreement with the municipality to make a map to show his fellow citizens where his AE measures were located, and he also liked to demonstrate how hunters and farmers manage the land for nature.

According to a Dutch interviewee, it was important to emphasise to the public the added value of AE schemes; he said that this was not only a task of the government, but also of the whole food chain. By doing this the added value could be translated into higher prices for farmers. Today, the focus is often on "being able to be in an AE scheme". But if you want more farmers (with different motivations) to engage in AE schemes then more emphasis should be put on "wanting to participate in AE schemes" (intrinsic motivation), "having to participate in AE schemes" (external social pressure) and "being allowed to participate" (rules and regulations).

In Germany (Lower Saxony), some stakeholders said there is a need for promotion of AE schemes because they thought more promotion would increase the uptake. Some German (Lower Saxony) stakeholders thought an improved public image of farmers was due to the PR work of the farmers while other German (Lower Saxony) stakeholders thought this improved image was down to the farmers implementing AE schemes.

Communication among farmers

Flemish hunters and farmers said that thanks to AE schemes, there was more interaction within their group of farmers and with farmers who also hunt, e.g., farmers/hunters exchange information on game management and explain to farmers who do not hunt the impact that AE schemes have on wildlife. Farmers in turn said that by talking about AE schemes with fellow farmers, they also exchanged views on other topics such as the future of agriculture.

A German (Lower Saxony) farmer said farmers who also hunt are better communicators, perhaps because hunters are more aware of their role in protecting wildlife and want to tell people about this. Some Flemish respondents had similar thoughts, as they explained that maybe it had to do with the fact that farmers do not always fully understand why certain measures have been included in an AE scheme or the effect they are intended to have on arable wildlife. English and Scottish respondents said some farmers like working independently, in relative isolation, which does not help their ability to communicate.

German (Lower Saxony) respondents also thought farmers should be encouraged to work together, to pool their knowledge and to provide support for one another when they make mistakes. English interviewees also highlighted the importance of farmer-to-farmer interactions. According to them, farmer clusters are a good example of how best to communicate between advisor to farmer (access to experts) and farmer to farmer (share ideas). The interaction between farmers then led to reinforcing the “hopefully” good practices highlighted in farmer cluster meetings.

In the Netherlands where AE schemes are organised by collectives, most interviewees considered the organisation of them in this way as an improvement to the previous governmental organisation, with more sharing of knowledge and practical experiences and a belief that collectives speak the language of the farmers (i.e. they are a trusted resource).

In the Netherlands, respondents explained farmers currently participating in AE schemes can be considered to be front runners (the “early adaptors”). They would like these front runners to promote AE schemes more than they currently do to convince more farmers to take up AE options.

Both English and German (Lower Saxony) respondents expressed positive views of farmer clusters. An English interviewee said farmer clusters were also considered to provide good publicity for farmers, with many organising Open Farm Sunday events as well as other events related to farmer cluster engagement activities. Flemish stakeholders proposed bringing farmers together on a regular basis (once or twice a year) to discuss their experiences of AE schemes and to involve farmers in the process of improving them. Scottish respondents indicated that organisations like the GWCT should do more to promote farmer clusters to improve their take-up.

KNOWLEDGE

As the farmers, including some who hunt, are the ones to implement the AE schemes, we wanted to know the extent of their knowledge of them. It was also interesting to find out how stakeholders assessed farmers' knowledge of AE schemes and how stakeholders perceive the public's knowledge.

Knowledge of farmers

Scottish respondents felt that farmers' knowledge of the environment was not at the standard that it should be. Scottish interviewees felt that although most farmers know that AE schemes exist, few understand what they are for or how they should be implemented. It was suggested this leads to measures being established in areas where they do not provide the most benefit, farmers being signed up for inappropriate options and farmers having to rely on external advice, which can often be expensive.

Similarly, in Flanders, stakeholders interviewed felt that farmers have rather little knowledge of the needs of arable farmland wildlife and therefore often don't understand the reason for certain aspects of the measures established in AE schemes. The Flemish farmers, with an interest in hunting, we interviewed thought farmers who hunt understand AE measures best, for example why late mowing dates are included in the measures for arable farmland wildlife – to protect ground-nesting species. However, a Flemish farmer-hunter was of the opinion the decline of arable farmland wildlife is mostly due to predation by foxes and not the result of a shortage of sufficient high-quality habitat. Some other Flemish farmer-hunters said farmers still consider AE schemes as something that attracts wildlife which then damages their crops – this is likely to reflect concerns about the effects of hares, wood pigeons, rats,....

German (Lower Saxony) respondents said all farmers had some knowledge of AE schemes, with flower strips being the most widely known option. They also reported that farmers had some knowledge of the effectiveness of AE scheme measures for conservation. According to Dutch respondents, the knowledge and awareness among farmers has increased although it still needs improvement.

A Dutch farmer reported concerns about the younger generation of farmers, that they had little affinity with biodiversity conservation on farmland and, by extension, AE schemes. In contrast to this, a Scottish farmer without an AE scheme felt the lack of knowledge and interest in biodiversity was a particular problem for older farmers, as younger farmers seem to have a greater awareness of these issues. A similar sentiment was expressed by English farmers.

Some English farmers said they had a good working knowledge of AE schemes and the various options – with farmers often having a long history of being in AE schemes. There was also mention of the importance of including AE schemes in the training that farmers receive at agricultural colleges/universities, encouraging young farmers to take up AE measures as they already have an interest in the environment and biodiversity.

In the Netherlands, respondents reported that many farmers and water authorities clear ditches in the middle of the breeding season, leading to damage of nesting habitats – putting the importance of plot drainage above that of biodiversity. They felt this indicated a need for greater awareness and better education of the needs of wildlife.

A few of the Scottish interviewees thought that farmers should be taking more of an interest in the environment, so they are aware of their responsibilities. It was suggested that if farmers carried out monitoring on their farms, it would increase the level of engagement with AE schemes and what they are trying to achieve, and so improve farmers' ecological knowledge.

Dutch respondents said it is mostly the same small group of farmers involved in addressing declines in biodiversity, with the broader farming community showing less interest in this, with the danger of failing to engage with the majority of farmers.

Knowledge of non-farmers

Throughout the interviews it turned out that most of the stakeholders had an extensive knowledge of AE scheme measures. That was no surprise, as we selected the stakeholders specifically because of their involvement in AE schemes. They mentioned some knowledge-related aspects that they felt have an indirect impact on the uptake of AE schemes, besides those of farmers or farmers who also hunt. These included the level of knowledge of advisors, the general public and the amount of scientific knowledge available about the effects of AE schemes on biodiversity.

A pitfall in the current system of support for AE schemes highlighted in the English interviews was that English advisors were considered to be of variable quality (both governmental and private/NGO based). Regarding governmental advisors, the concern was that governmental austerity measures had resulted in more experienced, and thus expensive advisors, being replaced with cheaper, less experienced ones without the opportunity through mentoring to pass knowledge on. Promotion of governmental advisors also resulted in a loss of experience, again without passing on knowledge. Another negative development, in the private/NGO sectors, was advisors from an agronomic background giving biodiversity advice – which interviewees felt reflected a lack of understanding that detailed biodiversity knowledge is needed for the best conservation outcomes.

In the Scottish interviews there were also some concerns raised about the quality of advice provided by advisors, both in terms of farming and ecological knowledge. Some felt it was hard to find advice online, although it was acknowledged that the advice that is there is very good, once it was found. This is important because, as the policy maker emphasised, good advice is crucial in the management of the countryside and many farmers find it difficult to pay for such advice.

This is in contrast to the situation in Flanders, where advisors from VLM were considered to have a good range of knowledge and provide good advice. Some Flemish farmers said they learnt a lot about nature through the advisors of VLM. Some German (Lower Saxony) interviewees felt that more farmers would take up AE schemes if there was more advice available and if the advice was of high-quality.

Several of the Scottish participants questioned whether public understanding and knowledge about AE schemes was good enough. The Scottish scheme designer interviewed felt that the public didn't really know what AE schemes are, leading to people walking through measures with dogs or horses and damaging plants or disturbing wildlife. One Flemish farmer had similar problems with people entering his AE measures, and said that there is a lack of social appreciation for farmers who carry out tasks such as AE schemes.

Many of the German (Lower Saxony) interviewees felt that there should be more public-relations work carried out to inform the public about AE schemes. They also mentioned that uneducated members of the public sometimes damage flower blocks, picking flowers and walking through the measures. In Flanders, some farmers complained that their AE scheme is being used by hunters to hunt or to place their feed barrels in measures, neither of which is allowed.

A Flemish stakeholder said, "Farmers and people from the city know little about nature." A Dutch respondent said society as a whole needs to be "more involved". A Dutch interviewee cited a former politician: "Politics cannot do it if the people don't want it, and the people cannot want it, if they don't know about it. So, we all have to make sure that the people know about it. When they know about it, politics can do it." In line with this statement, in Scotland the designer felt that people should be asking more questions about where their food comes from and how wildlife is doing there.

Similarly, English respondents highlighted that AE schemes are funded by the public purse "public funds for public good" but if the public don't understand the relationship between farming and wildlife, the funding of AE schemes could become a problem. They stated there is a need to bridge this gap, with information that shows the value of this investment, so that funding for AE schemes continues. Many respondents felt that changes to be brought in following Brexit were likely to highlight this problem. Some farmers wanted assistance to run public events (e.g. Open Farm Sunday etc.) to help educate the public about farming and how farming can support the environment.

According to Dutch interviewees, consumers and citizens are largely unaware of AE schemes, farmers' collectives and farming practice. The 'profile' of farming and AE schemes in society needs to be enhanced by showcasing good examples. Some of the Scottish participants felt that most people get their knowledge from the press and that, as most of these stories are negative ones, this creates a negative impression of farmers in the mind of the public.

They thought the public could be educated by more positive articles, farm open days, information panels, and better use of social media.

English interviewees suggested that experts and volunteers should be involved in AE schemes and monitoring the effects on biodiversity, identifying a need for more evidence to support the provision of AE schemes, both scientific and anecdotal, although there was a realization that this would not be cheap. Examples they mentioned were experiments, farm walks and demonstration projects. Farmer clusters were seen as a good measure to help with increasing knowledge as they provided the facility for farmers to interact with experts directly, through small cluster meetings on farms.

Some of the Scottish interviewees felt that more of an effort should be made to 'sell' AE schemes and show farmers the many benefits that they can have. The businessman interviewed added that not enough is made of the business case for AE schemes, with opportunities for increased income often overlooked, and that more effort should be put into communicating this as well.

SUMMARY: COMMUNICATION AND KNOWLEDGE

Throughout the interviews there was some criticism of the written communication associated with AE scheme guidance. Flemish stakeholders felt that there was still room for more customized communication with less text and more images. The English respondents suggested producing one set of explanation and guidance for the public, and another for farmers.

A general comment in the interviews was that the results of monitoring should be better communicated. Farmers like getting feedback, particularly when they are coached rather than lectured to. Farmers want the back-up of scientific information and they like the access to experts who interact with them on their farms. It was suggested that farmers should receive specific, formal training about AE schemes and more attention should be paid to biodiversity and conservation in agricultural education programs.

Some English and German (Lower Saxony) respondents were positively disposed towards farmer clusters. German (Lower Saxony) respondents thought farmers should be encouraged to work together to exchange information and to help ease pressure in managing AE options, resulting in fewer errors. English interviewees highlighted the importance of farmer-to-farmer interactions. According to them, farmer clusters are a good example of how best to communicate advisor to farmer (access to experts) and farmer-to-farmer (share ideas). In the Netherlands where AE schemes are organized in collectives, most interviewees considered the organization as an improvement, as more knowledge and practical experiences are shared, and collectives speak the language of the farmers, i.e., they are a trusted resource.

Flemish hunters and farmers said that thanks to AE schemes, there was more interaction within their group of farmers and with farmers who also hunt, for example, farmers who are hunters can help explain the impact of AE schemes on wildlife to farmers who do not hunt. An English respondent said farmers are isolationists which does not help their ability to communicate. German (Lower Saxony) and Flemish interviewees said farmer-hunters are better communicators, maybe because hunters are more aware of their role in protecting wildlife.

In all participating countries some respondents - mostly non-farmers - felt that farmers have little knowledge of the environment and of the needs of arable farmland wildlife. This leads to measures being established in areas where they are not of most benefit or farmers being signed up for inappropriate options by advisors. Dutch respondents said the knowledge and awareness of AE schemes of farmers has increased, although it still needs improvement. It was felt that most farmers know that AE schemes exist, but few farmers understand what they are for or how they should be implemented.

German (Lower Saxony) respondents said flower strips are the most widely known AE scheme option among farmers. Farmers who said they have a good working knowledge of AE schemes and the various options, were often farmers who already had an AE measure.

There was concern amongst some interviewees of how the knowledge of AE schemes and the environment will develop in younger farmers. A Dutch respondent said that the younger generation has little affinity with biodiversity conservation while a few Scottish and English farmers felt the lack of knowledge and interest was a problem for older farmers and younger farmers seemed to have a greater awareness of these issues. The Flemish farmers who also hunt thought farmer-hunters understand the measures best, e.g. why later mowing dates are included in the measures of AE schemes for arable farmland wildlife.

Throughout the interviews it turned out that most of the stakeholders (designers of AE schemes, researchers, representatives of a nature organization, policy makers etc), had an extensive knowledge of AE scheme measures. However, there was a problem highlighted in the English and Scottish interviews concerning the quality of advice for AE schemes provided by English and Scottish advisors (both governmental and private), both in terms of farming and ecological knowledge.

The fact that the public didn't really know what AE schemes are or knew little about nature and farming was an aspect which came across in all participating countries. Interviewees felt the profile of farming and AE schemes in society needs to be enhanced by showcasing good examples and educating the public by more positive means (e.g. farm walks, Open Farm Sunday, volunteering, better use of social media). It was also suggested there should be more public relations-work carried out to inform the public about AE schemes.

The English respondents highlighted that AE schemes are funded by the public purse "public funds for public good" but as the public don't understand the relationship between farming and wildlife, the funding of AE schemes could receive less public support in the future.



Oude Doorn demo site farmer couple at their marsh harrier nest © Marco Renes



Diemarden demo site manager with local farmer © Eckhard Gottschalk

3.5 THEME MOTIVATION AND TRUST

We asked what motivates farmers to take up an AE scheme for arable farmland wildlife. Another important consideration covered in the interviews, is the amount of trust farmers have in the processes involved in the schemes, this will influence a farmer's engagement with AE schemes. The results are summarized here under the topics of motivation and trust. In the section about motivation, aspects of environmental responsibility, wildlife for hunting, money and social pressure are discussed. The trust section collates the statements of the respondents concerning trust or distrust as it applies to AE schemes in arable farmland, including trust in those running the schemes, those implementing them and managing the countryside, and trust in the schemes themselves to deliver biodiversity.

MOTIVATION

Environmental responsibility

Throughout the interviews, many farmers said they got involved in AE schemes because they wanted to do something good for the environment. When talking about the environment, some Flemish farmers referred to the wellbeing of their soil, English and Scottish farmers more often used words such as "biodiversity" and "landscape conservation", and almost all German (Lower Saxony) farmers interviewed said that farmers are the ones who design and maintain the landscape.

Of the farmers who were in an AE scheme, most highlighted the same positive aspects about the schemes. Firstly, that their own motivation and willingness to participate in a scheme got stronger after they joined a scheme. Secondly, that their involvement in AE schemes had led to them being more environmentally aware. Thirdly that they were proud of the extra wildlife they provide for through AE schemes on their farm (in England there was some friendly competition between farmers in how much habitat they provided and the wildlife that this resulted in). And finally, that their participation in these schemes had resulted in a greater appreciation from the public of their work and this improved their reputation. Several farmers suggested that the ecosystem services of AE scheme options should be emphasized more to help uptake – examples of ecosystem services were integrated pest control, minimum tillage, improvements in soil health and buffer zones next to the river to minimise nutrient pollution.

In the English interviews a dichotomy in how farmers see themselves and the effects of farming was noted. Farmers described two extremes, which cover the range. There were farmers that see farming as something more than production of food, with farmers being “custodians of the countryside” and there was the opposing view where farmers said they want to farm rather than be “park wardens”. Many English interviewees felt that green issues are more important for and better understood by younger farmers. Younger farmers were considered to have a more holistic view of farming and a greater desire to work with nature as opposed to against it. According to the English respondents this is because younger farmers are better informed and understood better how to manage AE schemes.

Wildlife for hunting

Since the interviews were about AE schemes for arable farmland wildlife, the aspect of attracting wildlife was mentioned several times, mostly by farmers who also hunt. A Scottish farmer who was also a hunter said that any farmer keen on shooting would be happy to take part in AE schemes, due to their beneficial effect on biodiversity. Likewise, a German (Lower Saxony) farmer-hunter had a positive attitude towards flower strips because, according to him, flower strips attract a lot of small game and they can be implemented across the whole hunting district. Another German (Lower Saxony) farmer-hunter was convinced that farmers who also hunt have a broader knowledge on how to protect wildlife.

Flemish farmer-hunters said their main reason for participating in AE schemes is because of the impact on wildlife. They said in order to increase wildlife they gladly undertake work for biodiversity, leading to the creation of more nature and a beautiful landscape. One Flemish farmer-hunter stated that working on biodiversity in an area is a group effort and that's why he tries to motivate farmers in his hunting area to take up AE schemes. Some farmers we interviewed said that this approach was sometimes successful, but that there are others in whom they have more confidence: e.g. fellow farmers over hunters.

In England some interviewees spoke of an interest in using AE scheme measures (specifically beetle banks, wild bird cover strips and supplementary feeding) for grey partridge because of its gamebird status – though this was not always due to an interest in shooting them, but possibly due to historical interest in shooting.

Money

Although a lot of farmers said they are in an AE scheme because of their interest in the environment, they also acknowledged that the financial aspect is important. An English farmer stated: "You can't be green if you are in the red." Farmers in England didn't see the payments from AE schemes as worth it because of the perceived extra bureaucracy that they would have to deal with.

The financial aspect, as a decisive factor in deciding to take up an AE scheme or not, got relatively more attention in the interviews in Flanders, Germany (Lower Saxony) and the Netherlands than in England and Scotland. Some Flemish farmers said AE schemes provided them a guaranteed income and that they were an interesting measure on land with poor soil quality or on land with legal restrictions on how crops can be managed, i.e. where there are restrictions in manure spreading.

Some German (Lower Saxony) farmers said they took up AE schemes because it improved their image, especially installing flowering strips, which they liked to have close to their business or farm shop where they are more visible. Some Flemish farmers acknowledged they "use" AE schemes in the "selling strategy" of their farm and they liked to show off with the fact that they implement AE schemes.

Some Flemish and Dutch respondents indicated that farmers don't apply for AE schemes on economically valuable fields, like land for vegetables, because they considered the remuneration to be too low. German (Lower Saxony) farmers said the financial incentive was one of the most important motivations for them to join AE schemes.

However, a German (Lower Saxony) farmer said, "Without funding they would do things for nature but probably smaller measures than the ones they did now." Nevertheless, those German (Lower Saxony) farmers made it clear that the production and selling of food was the most important role for them and their farms.

Social pressure

Another important factor in the decision-making process of farmers concerning AE schemes was social pressure. During the interviews we heard some comments that illustrated the negative effect that social pressure can have. For example, in Flanders some farmers preferred not to have an AE measure in a place visible to others out of fear of reactions from neighbours or fellow farmers. In Germany (Lower Saxony), farmers reported negative comments received from the public on AE schemes, mainly by the elderly, who thought of AE schemes as weedy fields. According to these farmers, members of the public have made statements such as, "Farmers need to produce food for money and that farmland is not an ecological playground." In England there were similar situations where AE scheme plots are seen as being too weedy which is seen as bad farming. Despite some English farmers seeing farmer clusters as a good idea (see knowledge and communication section), others felt pressured to join farmer clusters.

On the other hand, there were also examples showing the positive effect of social pressure. Several English farmers said they were motivated to have (more) AE scheme measures because their neighbours had them on their land. Furthermore, some German (Lower Saxony) farmers thought that having AE schemes improved their reputation in the public eye.

During the interviews, there were also some farmers who said that they did not want to be pressurised at all. One Flemish and one English farmer said that their autonomy or the possibility to make their choices freely was very important to them.

TRUST

There was a broad consensus among the interviewed farmers and stakeholders in all partner countries that agriculture has a big role to play in biodiversity conservation, mainly because of the large area it occupies in all the countries represented. Most respondents thought farmers were the most suitable people to undertake management for nature, especially in areas with a large amount of arable farmland. In some situations, stakeholders considered "Responsible farming", as some called it, to be a win-win for nature and agriculture. A Flemish farmer-hunter had another opinion. According to him, hunters are the most suitable people to manage AE schemes for arable farmland wildlife because they have a better knowledge and understanding of wildlife. In Flanders, stakeholders reported high levels of public support for AE schemes.

A Flemish stakeholder said that farmers are more trusting of external advisors than AE scheme advisors at VLM. According to him, this was because external advisors are often closer to the farmers, with personal connections, and there was still a form of mistrust towards the government. In England this fits with some of the comments made under knowledge and communication – perhaps reflecting the perception that Natural England had replaced more experienced, expensive advisors with cheaper, less experienced ones in a bid to save money – see the knowledge section in communication and knowledge.

Some Flemish stakeholders interviewed said they have confidence in AE schemes because they believed they work for arable farmland wildlife and because they can be easily integrated by farmers on their farms. Some Scottish farmers had similar thoughts; they even said that AE schemes were key to conserving farmland biodiversity. On the other hand, a Flemish designer of AE schemes said that they work for creating additional small natural habitats, but do not have the ability to achieve an overall increase in basic, widespread environmental quality. Some other Flemish stakeholders wondered whether buying the plots would not be better than working with AE schemes. The interviewed Flemish policy maker was aware of this issue and considered there was a trade-off between buying the plots or working with AE schemes to create additional habitat for arable wildlife but according to him, most people believe in the system of working with the schemes.

English stakeholders seemed to accept that AE scheme options are effective at the farm level. However, there were some who considered the scale at which they are provided might limit their usefulness at the landscape level – hence the support for farmer clusters, which work at a landscape scale and might have more of a chance of affecting change. Generally Scottish respondents thought AE schemes have the potential to benefit biodiversity but because they are so impractical for farmers, extensive positive results are rarely achieved.

Distrust

During the interviews, it became clear that many farmers, particularly those in England, Scotland and Lower Saxony, did not feel that they could trust the government. The reasons given for this distrust by English respondents were their perception that the rules surrounding AE schemes and the options in the schemes are unclear, with little room for accommodating honest mistakes in implementation of the contracts and overzealous implementation of inspections – with the impression that those farmers who took up more options were often more likely to be selected for detailed inspections. English and Scottish respondents also mentioned the poor level of knowledge of many inspectors. There was also a general perception among German (Lower Saxony) farmers that inspections were unfair and inappropriate. In Germany (Lower Saxony), England and Flanders, farmers reported that the government could impose restrictions on land use if rare species were found during the time land was in an AE scheme. From the governmental side, people had the feeling that the government did not trust farmers and that this was reflected in the strict level of inspections. These issues led farmers to choose options that are less complex versus those that provide more effective support for biodiversity but are difficult to manage.

In Scotland some farmers were concerned as to what the real aims of the current AE schemes actually are. It was felt that AE schemes were developed for the public rather than biodiversity to make it look like the government was doing something and that the farmers were being pushed in policy directions by the government. Some of the feelings of distrust in England seemed to also be related to earlier problems with delays in payments for AE schemes – where previously the government had failed to pay farmers for their AE measures for years.

There were also some farmers who just didn't support the use of AE schemes. A Dutch respondent said some farmers were not interested in AE schemes, they consider nature a mess, nature conservation was not for them or they didn't believe field margins contribute to the suppression of aphids in their crops. Some Flemish farmers said AE schemes mainly attract wood pigeons which cause damage to their crops or that AE schemes have too many rules.

Some German (Lower Saxony) respondents felt that it did nothing good for their reputation to be involved in AE schemes as people still say: "Farmers are mass murderers and polluters" and "Agriculture land doesn't grow back and is needed to earn money."

Finally, in the case of English and Scottish farmers, the effect of Brexit should not be discounted. At the time of the interviews very little detail was known concerning the changes this would bring to governmental monetary support of farmers, but it was known that the plans post-Brexit included an elimination of Pillar 1 direct funding to farmers in England.

SUMMARY: MOTIVATION AND TRUST

Many farmers said they got involved in AE schemes because they wanted to do something good for the environment. It turned out that farmers interpreted the term environment in different ways. Some Flemish farmers talked about the wellbeing of their soil. English and Scottish farmers more often used words such as "biodiversity" and "landscape conservation". German (Lower Saxony) farmers associate it with design and management of the landscape.

Once involved in an AE scheme, some farmers said they become more committed, more motivated, more environmentally aware, proud about the extra wildlife they provide and more appreciated by the public.

Since the interviews were about AE schemes for arable farmland wildlife, the aspect of attracting wildlife was mentioned several times, mostly by farmers who also hunt. In England some interviewees spoke of an interest in AE scheme measures specifically for the grey partridge because of its living heritage value, nostalgia, as well as a desire for shooting.

Throughout the interviews, it became clear that the financial aspect, as a decisive factor to step into an AE scheme or not, got relatively more attention in the interviews in Flanders, Germany (Lower Saxony) and the Netherlands than in England and Scotland.

Another important factor in the decision process of farmers regarding participation in AE schemes, was social pressure. In the interviews we heard examples of social pressure which had a positive effect on uptake as well as a negative effect. Some farmers didn't like to experience any pressure at all.

There was a broad consensus among the interviewed farmers and stakeholders in all partner countries that agriculture has a big role to play in biodiversity conservation, mostly because of the large area that farmers manage.

In England, Scotland and Germany (Lower Saxony) especially, farmers did not feel that they could trust the government. Problems with inspections, the fear of inspections and penalties were the main reason farmers interviewed in England and Germany (Lower Saxony) gave for not taking up AE schemes and for thinking they might not take AE schemes up in the future. In England and Scotland, the looming figure of Brexit and the changes it would bring to governmental support to farmers no doubt contributed to feelings of distrust in the government. On the other hand, it was also felt that the government did not trust the farmers as was evidenced by overzealous inspections. Finally, there was also a group of farmers who just do not support AE schemes for a variety of reasons, like AE schemes are a mess or nature conservation is not for them.



Informing Belgian farmers about UK AE measures in Rotherfield © Korneel Verslyppe

4. Discussion and follow-up

Comparing the interviews across all partner countries required coordination between interviewers who had a good overview of the aspects that were perceived as positive or negative by their respondents, and those who had detailed knowledge of the AE schemes in the countries where the interviews were carried out. The AE schemes for arable farmland wildlife in all partner countries had many similarities but were not identical. Often these different details, such as how measures must be managed, can lead to very different outcomes and effects on farmland biodiversity. For example, in England, the prescription for establishing wild bird cover plots was originally designed to provide seed resources to overwintering farmland birds. The emphasis on seed production explains the use of chemicals and fertilizers on these measures, as compared to the situation in other countries where such inputs are not permitted. The analogous measure in Scotland requires growers to resow mixes afresh each year, meaning only annual seed mixes are suitable and putting off many farmers. In addition, there are also differences between the countries themselves, such as physical conditions, cultural traditions and history of the AE scheme measures, etc. Together, these determine the complex policy context in which AE schemes are implemented and in which the formulated conclusions of this report should be seen.

The conclusions we drew from the interviews are not new and are confirmed by these recent studies and evaluations of AE schemes by other researchers. We interpret this to mean that our series of interviews gave us a representative picture of how farmers and other stakeholders experience and evaluate AE schemes. There is a large body of published work comparing farmer uptake of AE schemes across the EU, based on the characteristics of those farmers that join AE schemes, their motivations, and their decision-making that goes into this (Brown et al. 2019, 2021; Dessart et al., 2019; Pavlis et al., 2016, Zimmermann & Britz, 2016). Some more information on this can also be found in the national reports of the interviews per participating country.

Many of our interviewees highlighted the effects of structural and sociodemographic issues related to the size of farms, the education and experience levels of farmers in the uptake of AE schemes, with bigger farms, younger farmers and, in the instance of older farmers, those more experienced with AE schemes more likely to carry on with them. Several other researchers have associated these attributes with higher uptake (Bown et al., 2019; Brown et al., 2021), although these relationships can vary between countries based on levels of farming intensity (Zimmermann & Britz, 2016). This may reflect localized conditions such as proximity to urban areas (Pavlis et al., 2016) or, as suggested by Lastro-Bravo et al. (2015) whether AE scheme payments are viewed as a way to increase income in areas where farms are less productive (favoring small farms) versus areas where AE scheme payments are seen as a means of offsetting risks associated with agricultural production (larger farms).

The effect of payment levels on uptake is a subject that has dominated the research agenda regarding AE schemes (Brown et al. 2021). Are the differences between the countries justified? Are the costs of managing prescriptions really that different between countries? Do the smaller payments in the UK, for example, mean that more farmers can join AES compared to, say The Netherlands, where payments seem to be high? Our interviewees did report a need for payments to be seen as fair and reflecting costs – both establishment and management.

Several different payment models were suggested and discussed in our interviews, including payment by results, auction-based schemes, with other authors reporting some interest among farmers for these methods of payments and the possibility of using them to encourage landscape level scheme coverage (Bown et al., 2019; Kuhfuss et al., 2019).

Additional to the effects of structural and sociodemographic issues and payment levels and models, our interviewees also considered behavioral characteristics of farmers – including environmental awareness, an interest in hunting and the effects of peer pressure (Bartkowski & Bartke, 2018; Dessart et al., 2019). The provision of advisory services and support to enable both AE scheme entry and ensure that farmers who took up these schemes made the best of them, were also highlighted in our interviews. Lastly the flexibility of the system for enrollment and inspection was considered highly influential in both encouraging farmers to enter schemes and continue with them once contracts end. The consensus in other published work is that these behavioral, social, and supportive aspects of AE scheme adoption have received less attention from policymakers responsible for designing AE schemes (Brown et al., 2021; Bartkowski & Bartke, 2018; Dessart et al., 2019).

Further Research

Important aspects were identified that were felt influenced the effectiveness of the AE schemes for arable farmland wildlife, and these were further substantiated and confirmed in a large-scale survey among farmers. Based on the results of the survey we can then formulate recommendations on how the motivation for and participation in agricultural nature management can be strengthened.

Important aspects that were addressed in a large-scale survey:

Questions aimed to find out about the farmer and their farm: We recorded basic structural details of the farm and farmer – i.e. age, size of holding, type of farm. Included in this is determining whether they have an interest in hunting and if they did what quarry etc. did they hunt.

Our interviews showed that previous experience with AE schemes may influence farmers' opinions and future take up of AE schemes. To address this, we included questions in our online survey about whether farmers were currently in an AE scheme – and if they were what measures they were providing. As our interviews highlighted many different motivations for joining an AE scheme, we asked farmers about their motivations for joining AE schemes, with a list of possible reasons for joining highlighted through our interviews. For those respondents who did not report current AE scheme membership, we asked them to tell us their reasons for not joining and their opinion of the proposed changes to AE schemes that had arisen in our interviews – would these changes make them more likely to join a scheme?

This was followed by a section on the importance of advice and inspections for both those who currently have an AE scheme and those who do not – problems with both access to advice and quality of inspections were highlighted in our interviews. Detailed questions then followed on their opinion of possible improvements on the management required for measures in AE schemes, focusing on measures providing wild bird cover, but also including flexibility regarding mowing, locations of measures, length of contracts or agreements and the inclusion of options to enable predation management. Finally, we asked questions on farmers' opinions of different payment models for AE schemes and methods for calculating levels of payments.

We specifically asked respondents about the level of payment for wild bird seed mix options – whether it was currently sufficient and if not, what would be a more accurate level of payment.

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Agri-environmental schemes for arable wildlife, a qualitative study in the Netherlands : [What Dutch stakeholders think of their Agri-environment Climate Scheme and how it could be improved](#)

Agri-environmental schemes for arable wildlife, a qualitative study in the Flanders : [What Flemish stakeholders think of their Agri-environment Climate Scheme and how it could be improved](#)

Agri-environmental schemes for arable wildlife, a qualitative study in the Scotland: [What Scottish stakeholders think of their Agri-environment Climate Scheme and how it could be improved](#)

Agri-environmental schemes for arable wildlife, a qualitative study in England : [What English stakeholders think of their Agri-environment Climate Schem and how it could be improved](#)

6. Appendices

APPENDIX 1 : INTERVIEW QUESTIONS

1. What role do you see for farmers in the conservation of wildlife and landscape?

- If negative, ask, at the end of the interview, what they think can motivate farmers to take up an AE schemes for farmland wildlife.

2. Can you describe your background knowledge about agri-environment options for arable farmland wildlife?

Some questions about the system of AE schemes for farmland wildlife

3. What do you think about the current governmental system of providing AE schemes for arable farmland wildlife?

- If positive, why?
- If negative, why?
- What would you change?

4. Do you think that the agri-environmental options available for arable farmland wildlife are suitable?

- Are there others that would be useful?
- What do you think about the flexibility of those options, for example considering local conditions?
- What about the length of agreements, particularly as regards certain AE schemes options?

5. Do you think the AE schemes for arable farmland birds are effective in improving the quality of habitat for wildlife?

- If yes, in which way?
- Do you think the AE schemes, as they currently exist, are the best way to help farmland wildlife?
- If not, why not?
- Any improvements

6. How do you think we can improve the uptake of AE schemes for arable farmland wildlife?

- Do you think working with groups of farmers for example in a “farmer collective” or “farmer cluster” would help?
- Do think more ownership/more involvement/more visibility of the farmers work would help?
- Do you think less inspections would help? – fewer inspections/common sense applied – Allerton inspected 3 in 5, pond measured when full vs empty, awaiting report/payment

Now some questions about the remuneration of AE schemes farmland wildlife

7. What do you think about the payments that farmers receive for AE schemes for arable farmland wildlife? Is the amount sufficient?

- If yes, why?
- If no, why not and what would be enough?

8. In your opinion, how should the remuneration be calculated? Which aspects are important to consider in the remuneration of AE schemes for arable farmland wildlife?

- For example, is the scale of AE schemes that the farmer provides important in considerations?
- Should there be national or regional remuneration levels?
- Should regional or other differences be considered when calculating remuneration (for example soil type)?

9. Do you think it is necessary to look for an alternative payment system for AE schemes for arable farmland wildlife?

- For example, do you think the remuneration should be based on the “wildlife or biodiversity results” rather than the provision of habitat by farmers?
- Other considerations

Some questions about the way the AE schemes for farmland wildlife are managed and provided by farmers.

10. Is the guidance on establishment and management of AE schemes for arable farmland wildlife appropriate?

- Is there enough advice available? For example, to help farmers making a choice of the best AE schemes options? How to implement these for best advantage?
- Is there enough of follow-up to help with management of AE schemes?
- Are there shortcomings in the advice on how to manage AE schemes options, for example, in how AE schemes are established and managed on the field?

11. Is the monitoring of AE schemes for arable farmland wildlife appropriate?

- What's your opinion on the outcome for wildlife?
- Do you think that AE schemes work?
- What's your opinion on the governmental monitoring and inspection of the AE schemes?

Final question

12. Do you have any other ideas, suggestions or opinions you would like to share?

For example, for government or nature conservation groups?

- Thing they think that can help to motivate farmers to implement agri-environment for farmland wildlife?
- Keep farmers involved?
- Keep the government and public purse involved?
- After Brexit?

APPENDIX 2 : CODES USED FOR QDA MINER.

A. Codes for Knowledge and Communication.

KC Knowledge and communication	
Definitive code	Explanation/when to use/when not to use
KC Of farmer on AE schemes	Knowledge of farmer on AE schemes Use: to do with knowledge, e.g. the farmers knows the AE schemes help in creating a good habitat for partridges
KC Of hunter on AE schemes	Knowledge of hunters on AE schemes Use: to do with knowledge, e.g. the hunter knows the seed mixes of the AE schemes help in attracting wildlife
KC On AE schemes	Communication to/between farmers/hunters on AE schemes Use: <u>emphasis on communication</u> , not knowledge, every aspect of communication to or between farmers/hunters about AE schemes, education, promotion e.g. In the farmer organisation, where I'm a member, we recently had a discussion on AE schemes
KC Farm clusters	Communication/sharing information in farm clusters e.g. in the UK, farmers in a farmer cluster can access more information than they could otherwise
KC Environment	Knowledge of farmer/hunter on the environment he works in Use: all kinds of relevant information the respondent gives on nature, weed, soil, predation, this subtheme tells us something on how the respondent looks to his environment e.g. protection of certain species is important but also predation control e.g. he is in favour of regular mowing of the weeds
KC Public	Knowledge/communication of the public on AE schemes and how it is used to influence the respondent Use: all kind of relevant information to do with what the others (public) think e.g. neighbours ask the respondent why he doesn't sow any flower blocks
KC Advisor	Communication/knowledge delivered by an advisor e.g. info of VLM or a farmer advisor
KC Trusted resource	Communication/knowledge delivered by someone/something they trust e.g. AE schemes recommended by a friend, a colleague
KC Communication of effort	Communication/knowledge of a success story e.g. I went to a demonstration of the EU PARTRIDGE project and they told wildlife doubled in the area
KC Teamwork	Communication/knowledge the working on habitat with AE schemes is a team effort e.g. use when your respondent tells you about the fact that creating a good habitat for wildlife is something he can't do on his own, they will have to work together with others

B. Codes for Policy

P Policy	
DEF CODE	Explanation/when to use/when not to use
P Time cycle	Use: policy aspects to do with the time aspect of AE schemes, e.g. duration of the contract
P Inspection/penalties	Use: policy aspect to do with the inspection, auditing and consequence of inspection (penalties)
P Bureaucracy	Use: policy aspect to do with administration, the complexity of the rules, not easy to change the rules, Don't use for aspects to do with the way AE schemes is organized in your country, they belong to "P Organization"
P Possible/practical to execute by farmers	Use: policy aspects of the AE schemes measures to do with the execution of them, are the measures practical to execute? Problems with other laws? e.g. with AE scheme measure it's possible to adjust an irregular border to a regular border which makes the parcel easy to use don't use: policy aspects to do with the content of the measures, they belong to the subtheme "change of AE schemes measures"
P Change of AE schemes measures	Use: policy aspects to do with the content of the measures e.g. the composition of seed mix, the manner/time of weed control, the possibility of predation control... don't use: policy aspects for practical aspect of AE schemes to do with the execution of the measure, they belong to the subtheme "possible/practical to execute by farmers"
P Monitoring	Use: policy to do with the output of AE schemes, giving of feedback, efficiency, effect Don't use: when it's about the communication of results, they belong to the subtheme "KC on AE schemes" Don't use: for aspects on inspections, they belong to the subtheme "P inspection"
P Payment	Use: policy aspects to do with the amount of remuneration, timing of payment, ...
P Payment system	Use: policy aspects to do with the payment system, the aspects which are/aren't included
P Accessibility	Use: policy to do with who can/in what way/condition start with an AE schemes e.g. it can't step into an AE scheme because my parcel is not in an area assigned for AE scheme e.g. my level of ambition is high enough to get an AE schemes
P Organisation	Use: policy aspects to do with the way things are organized for AE schemes in your country, about government, with collectives Don't use: policy aspects to do with bureaucratic aspects, they belong to "P Bureaucracy"
P Location of AE schemes	Use: policy aspects to do with place on the parcel/farm/region measures are taken e.g. farmers tend to have AE schemes on pieces of land which are not suited for agriculture don't use: for aspects to do with a governmental decision if you can have a AE scheme in a certain area or not, they belong to the subtheme "P Accessibility"

C. Codes for Motivation.

M motivation	
DEF CODE	Explanation/when to use/when not to use
M Environmental responsibility	Use: motivations to do with the responsibility of farmers towards the countryside, that farmers have to care for the landscape, the biodiversity and the wildlife. To do with the public perception people have on farming and of farmers and that farmers are responsible for that image, to do with moral aspects/values
M Monetary	Use: motivations to do with money aspects, issues of extra income, remuneration
M Brexit	Use: motivations to do with Brexit and aspects to do with Brexit
M Aspects about integration of AE schemes in farming business/farming practice	Use: motivations to do with the fact that the measures suit easily in the current practice or farming business Don't use: motivation to do with finance, they belong to the subtheme "M Monetary"
M Food production	Use: motivations to do with providing food for the people
M Attract wildlife for hunting	Use: motivations to do with the attraction of wildlife for hunting
M Autonomy	Use: motivations to do with the autonomy of the decision maker to step in (or don't step into) an AE scheme
M Social pressure	Use: motivation to do with social pressure factors (e.g. from neighbours, society, other farmers (cluster))

APPENDIX 3 : SUCCESSES, PITFALLS AND SUGGESTIONS – BY THEME

Theme : Organisation and Design

Success factors

- Many Dutch, Flemish and German (Lower Saxony) interviewees held positive views of the governmental organisation of AE schemes in their country.
- Dutch respondents had a broad consensus that the collectives are an improvement to the previous system; collectives offer farmers a platform for consultation.
- Flemish respondents valued the assistance of VLM advisors; they stressed that AE scheme advisors are important in transferring knowledge about nature to farmers and land managers.
- All countries highlighted the importance of having a reliable and stable system of governmental inspection and support was mentioned several times in all countries.
- There were very few negative responses on the current length of AE schemes, in some countries 5 years was considered a minimum.

Pitfalls

- Scottish and English respondents were more critical of the organisation by their governments; Scottish respondents did not want the organisational responsibility for AE schemes moved from the current governmental inspection but thought there needed to be improvement in its' management; English participants felt the older AE schemes (ELS/HLS) were better than current ones and also said that governmental departments needed to be resourced better to make schemes work more effectively.
- According to many Scottish respondents it is very difficult for farmers to get access to AE schemes because they are expensive to apply for (each applicant needs a farm environment assessment document to be drawn up) and they also pointed out that there seems to be a problem with both access to advice, and with the competence of the advisors.
- In the Netherlands, Flanders and England respondents felt the designated areas for AE schemes for arable farmland wildlife were too rigid.
- In Flanders, Germany (Lower Saxony) and Scotland some respondents said the measures are too generic (lack of variety of measures available in AE schemes) and that measures should be more refined locally to make them more applicable.
- Interviewees in all countries/regions mentioned the lack of biodiversity monitoring within AE schemes.
- In England, Scotland, the Netherlands and Germany (Lower Saxony) there were negative comments expressed on the inspection of AE schemes (inspection authority operating too far from farm practice and being too strict), which they felt have a negative impact on the uptake of AE schemes by farmers.

Suggestions

- A suggestion to address the limited budget for AE schemes was to involve the wider food production market.
- Some Dutch respondents thought that it should not just be farmers who are allowed to enter AE schemes, but also other stakeholders who play a role in biodiversity and landscape conservation.
- When it came to the design of AE schemes, Flemish, German (Lower Saxony) and English respondents suggested greater farmer involvement.
- In Scotland it was suggested that the design of AE schemes should be made simpler in order to encourage more farmers to take part.
- In the Netherlands respondents proposed broadening the scope of AE schemes (e.g. to include soil quality, suppression of diseases, measures for landscape care).
- Other suggestions on adjustment of design were: rotating measures, rewilding-type measures and subsidies for more legal predation control during the spring breeding season.

Theme : Ease of Implementation

Success factors

- Option to adjust the width of the measures.
- Scottish respondents were positive when it came to the location of the measures.
- When AE schemes help farmers to do something they already wanted to do.
- When AE schemes help them to comply with other rules.

Pitfalls

- Not having suitable machinery.
- Having no use for grass cuttings collected from measures.
- Flemish farmers don't prioritise AE schemes in their farm management, causing problems with the strict dates in the agreement.
- AE schemes are not always popular for landowners and sometimes forbidden in lease contracts.
- For English and Scottish farmers, complexity was mentioned as well as the level of bureaucracy involved, particularly in the enforcement of AE scheme requirements.
- Problems with persistent weeds.

Suggestions

- Scottish respondents suggested staggering the implementation of the measures instead of putting them all in at once and to make AE schemes easier to establish.
- An English interviewee suggested creating demonstrations of how good management of AE schemes improves biodiversity, something that is done in the PARTRIDGE project.
- Flemish respondents suggested being able to move the location of measures during the time of the contract.

Theme : Payment

Success factors

- In Flanders and the Netherlands, where the remuneration is relatively high compared to the other partner countries, most respondents are satisfied with the remuneration.
- According to English and Scottish respondents, it's important farmers get the feeling that the payment covers the cost of implementing an AE scheme.

Pitfalls

- In Flanders, some respondents, especially stakeholders, said there is a risk that farmers consider the money earned by AE schemes as a guaranteed, low-risk income, and that they might forget AE schemes serve to conserve biodiversity, not farmer income.
- According to Scottish and Dutch respondents, the budget for AE schemes is too small.
- Allowing for guidance in AE scheme allocation by governmental bodies (as in Flanders) or farmer collectives (as in the Netherlands) may stimulate uptake of AE schemes, but also leads to higher transaction costs.
- AE schemes' budget allocation procedures may profit larger farms at the expense of smaller ones (at least in some countries).
- It is essential that differing AE scheme payments should not lead to feelings of inequality amongst farmers when they put in the same amount of work or time.
- Respondents also realise that alternative systems may become complex and difficult to manage.
- In Scotland and England, where payment levels are lower, it was felt the remuneration did not adequately cover the costs involved.

Suggestions

- Respondents from all partner countries see opportunities to work with different payment regimes for different AE scheme options, depending on local circumstances e.g. soil type, high yielding land.
- Payment by results (biodiversity and wildlife) i.e. a top-up system. In the Netherlands, where they already apply such a system, they want to go even further.

Theme : Communication and Knowledge

Success factors

- Communication between farmers helps to convince other farmers to engage in schemes.
- Communication about AE schemes to the public educates the general public on the importance of wildlife management through AE schemes.
- Farmers appreciate learning opportunities especially when this includes face-to-face contact with experts as is done in PARTRIDGE.
- During the interviews, it was generally felt that the hunters and non-farmer stakeholders interviewed had a good knowledge of AE schemes and habitat measures.

Pitfalls

- The results of monitoring of AE schemes and measures should be better communicated, as farmers like getting feedback and scientific information.
- In general, non-farmer interviewees, and even farmers themselves, think that, for some farmers, the level of knowledge about AE schemes still needs improvement—especially the requirement for more information on the needs of farmland wildlife.
- The general public know too little about AE schemes, and should be educated in order to increase public support for the costs of AE schemes and allow the public to identify these options in the environment.
- There was some criticism of the documentation associated with AE scheme guidance (too long, too complicated, not attractive to read, not applicable to the target group).

Suggestions

- In agricultural education programs there should be specific training covering AE schemes and biodiversity conservation.
- Farmers should communicate more about their AE scheme measures and the impact on wildlife to the general public and their fellow farmers e.g. by participating in farm walks and demonstrations as in done in the PARTRIDGE project.
- According to English, Scottish and German (Lower Saxony) respondents, farmer clusters are a good example of how best to communicate advisor to farmer (access to experts) and farmer-to-farmer (share ideas). Working together ensures knowledge exchange, with less pressure of making mistakes.
- Farmer collectives or farmer clusters could help improve knowledge exchange of AE schemes between farmers but also with the public and policy makers.

Theme : Motivation and Trust

Success factors

- Many farmers in all countries said they engaged in AE schemes because they want to do something positive for “the environment”. However, it is important to note that there are differences in how farmers interpret “the environment” e.g. some think of soil quality, others of biodiversity or landscape.
- Over all countries, farmers say that once being involved in AE schemes they become more motivated.
- The fact that AE schemes for arable farmland wildlife are about attracting wildlife helps to convince hunters or farmers who also hunt to take up AE schemes for arable farmland wildlife. In England, some interviewees said they have an interest in AE schemes specifically because of measures for the grey partridge.
- Stakeholders, non-farmers, and farmers interviewed across all countries believe farmers are important in the conservation of farmland biodiversity.

Pitfalls

- The financial aspect is a decisive factor for joining an AE scheme, with that aspect being mentioned more in Flanders, Germany (Lower Saxony) and the Netherlands.
- Farmers in all countries said they don't have AE schemes because they fear negative comments of fellow farmers, neighbours etc.
- In England, Scotland and Germany (Lower Saxony) farmers said many do not get into AE schemes because they don't trust government.
- Some farmers are 'non-believers' in AE schemes due to various reasons (e.g. they don't want to be park wardens or feel that arable land is for the production of food).

Suggestions

- Provide incentives to match motivations; some farmers were motivated by money, others by an interest in conservation.
- In England, the Netherlands and Flanders respondents suggested more emphasis should be placed on the possible commercial benefits of AE scheme options (pest control, minimum tillage, soil health, buffer zones; biodiversity, nature, sustainable agriculture); the ambition should be that the market should provide some support for the measures offered in AE schemes, as the future of subsidies is uncertain.

