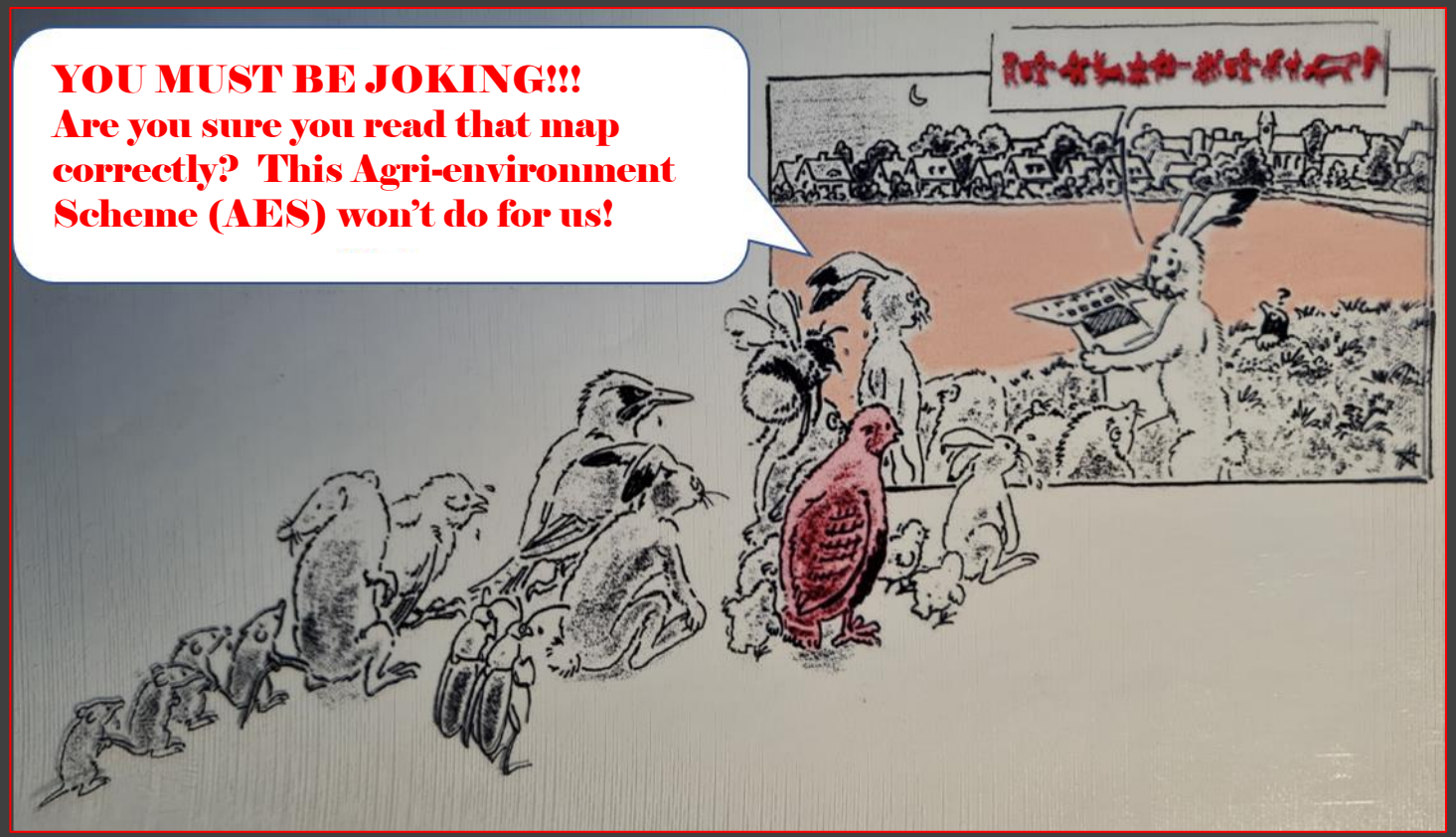
How to restore farmland biodiversity

Solutions and recommendations from the NSR PARTRIDGE project

Francis Buner, Project Coordinator

Fien Oost, Project Manager

Oude Doorn demo site NL



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Hosted by European Committee of the Regions

Policy influencer event
Brussels, 30 May 2023

Interreg North Sea Region BEESPOKE European Regional Development Fund EUROPEAN UNION

What is the PARTRIDGE project ?

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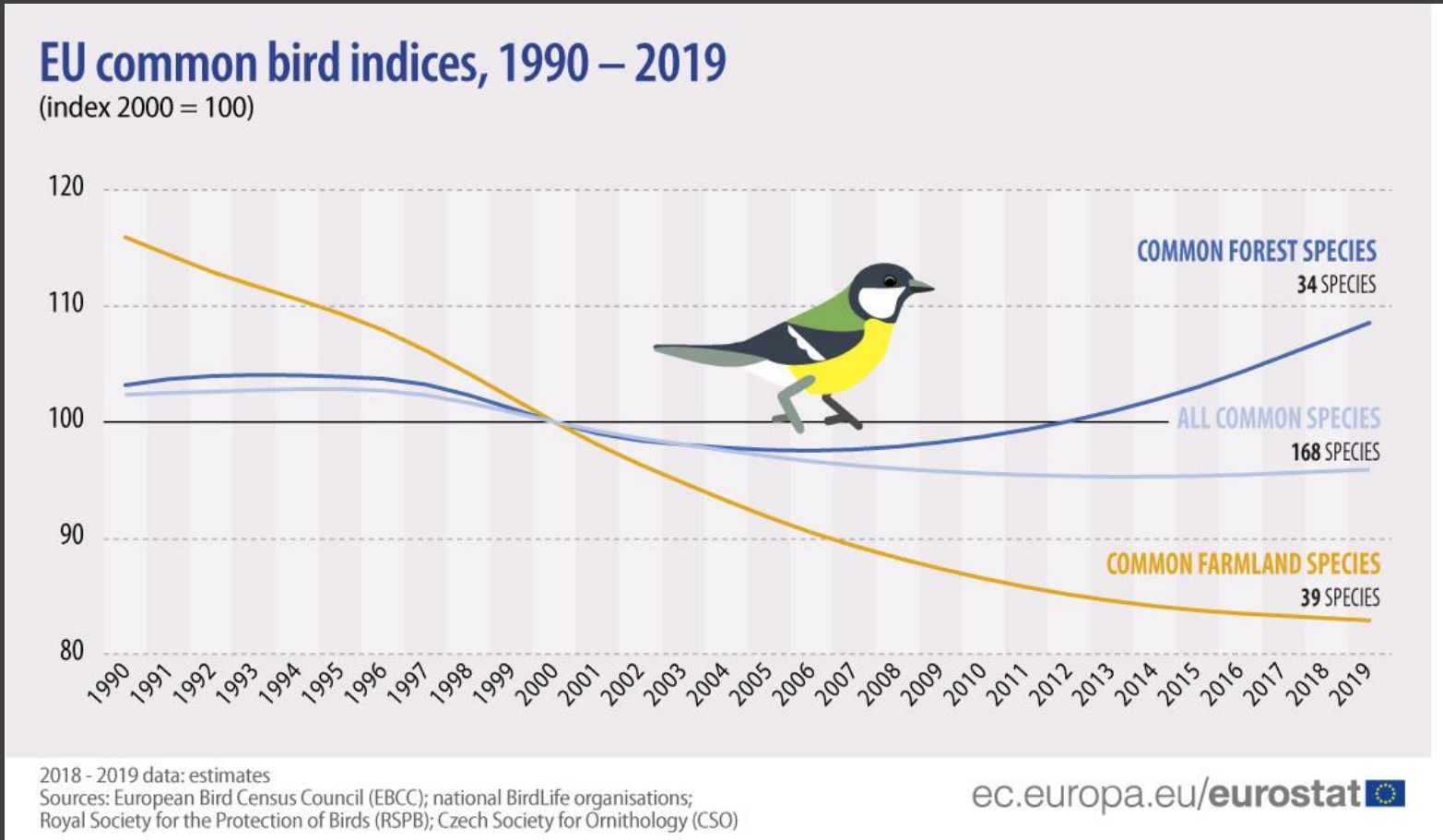
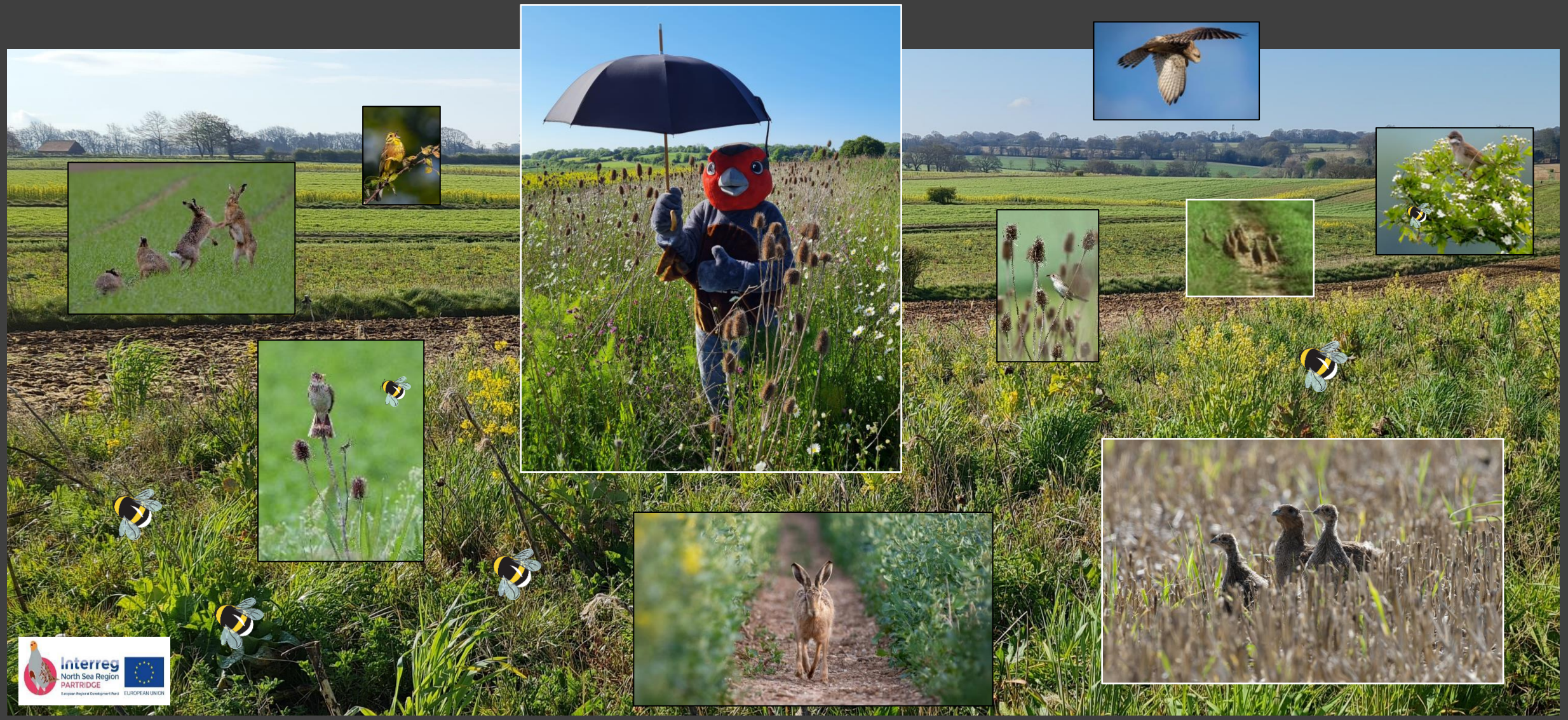
Demonstrating how to recover farmland biodiversity on Europe‘s arable farmland

Why PARTRIDGE ?

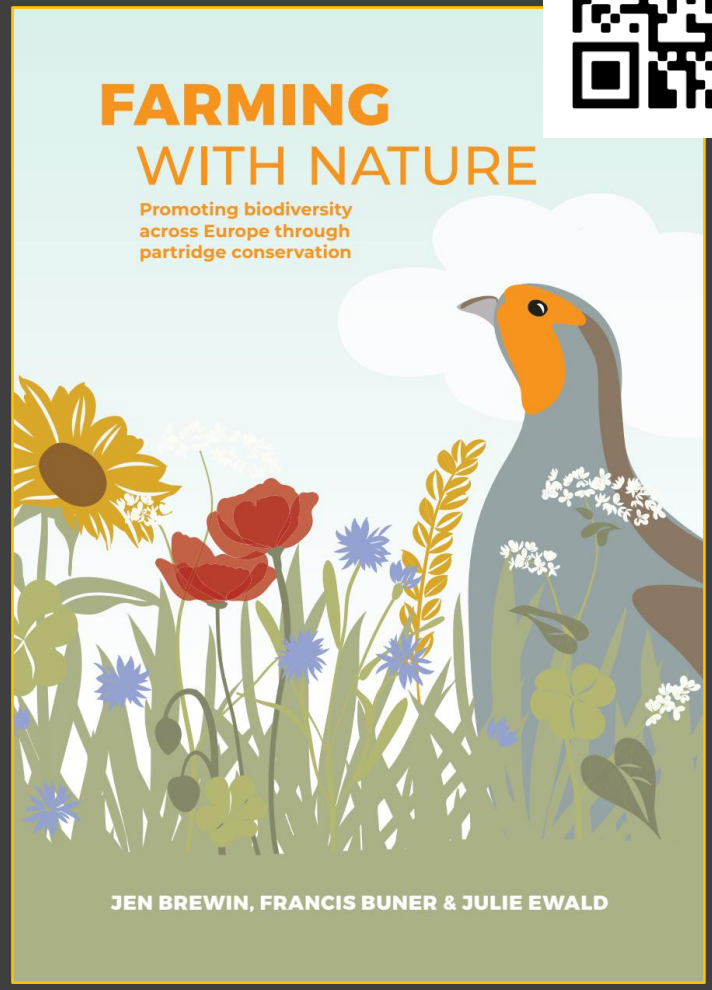


Why the grey partridge? Umbrella species

If we do what is right for the grey partridge, we do what is right for biodiversity



What was our approach?



Based on scientific evidence and practical experience from across Europe.

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We developped a NATURE RECOVERY TOOLBOX to improve and increase the amount of wildlife-friendly habitats at our 10 demo sites.

Within the limits of what an Interreg project can realistically achieve.

Our main habitat measure was the PARTRIDGE flower block

Year-round habitat offering best value for money


Skylark ©Markus Jenny

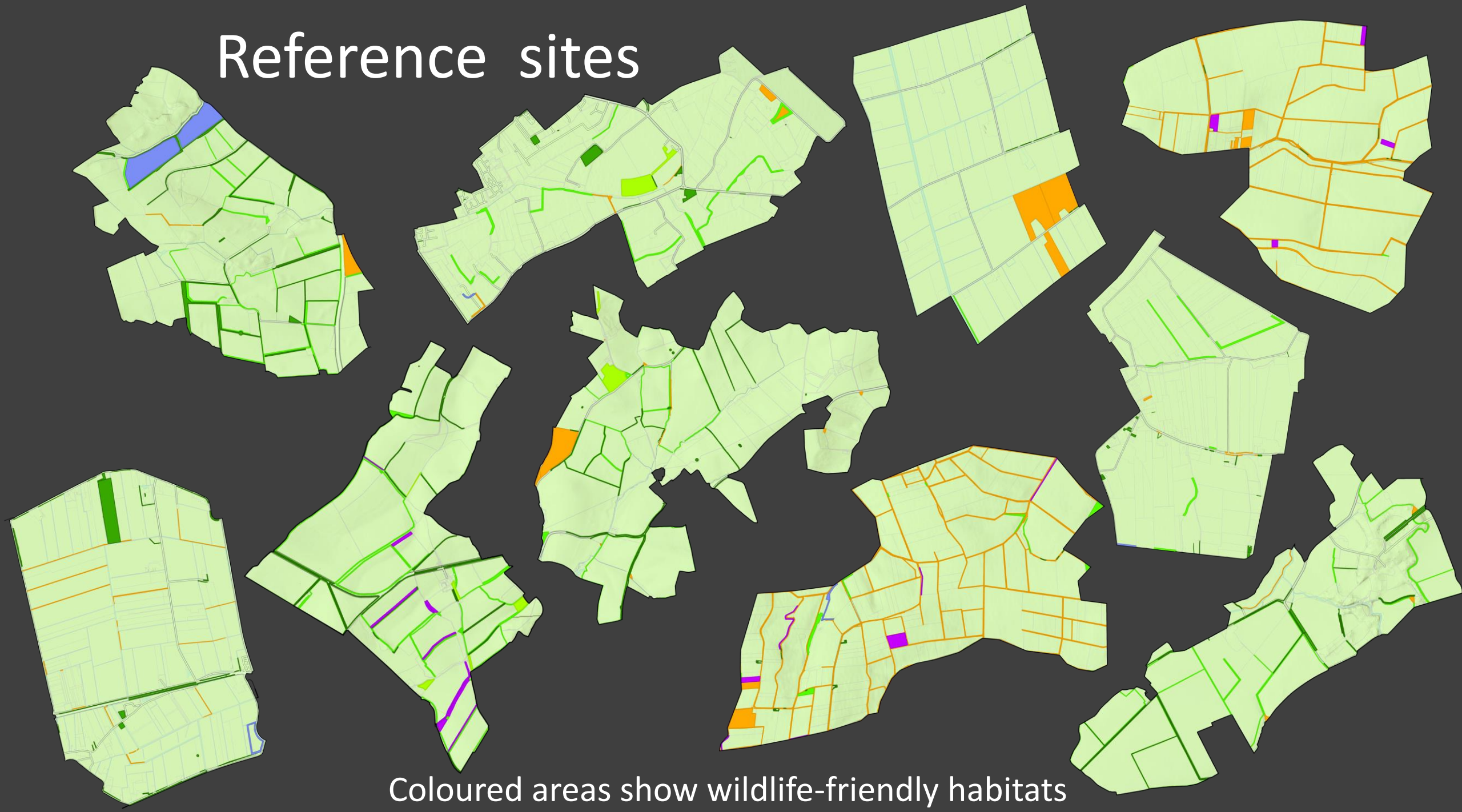

Stonechat ©Markus Jenny


Whitethroat ©Markus Jenny


Roe deer with faune ©Markus Jenny


Easter hare ©PARTRIDGE NSR

Reference sites

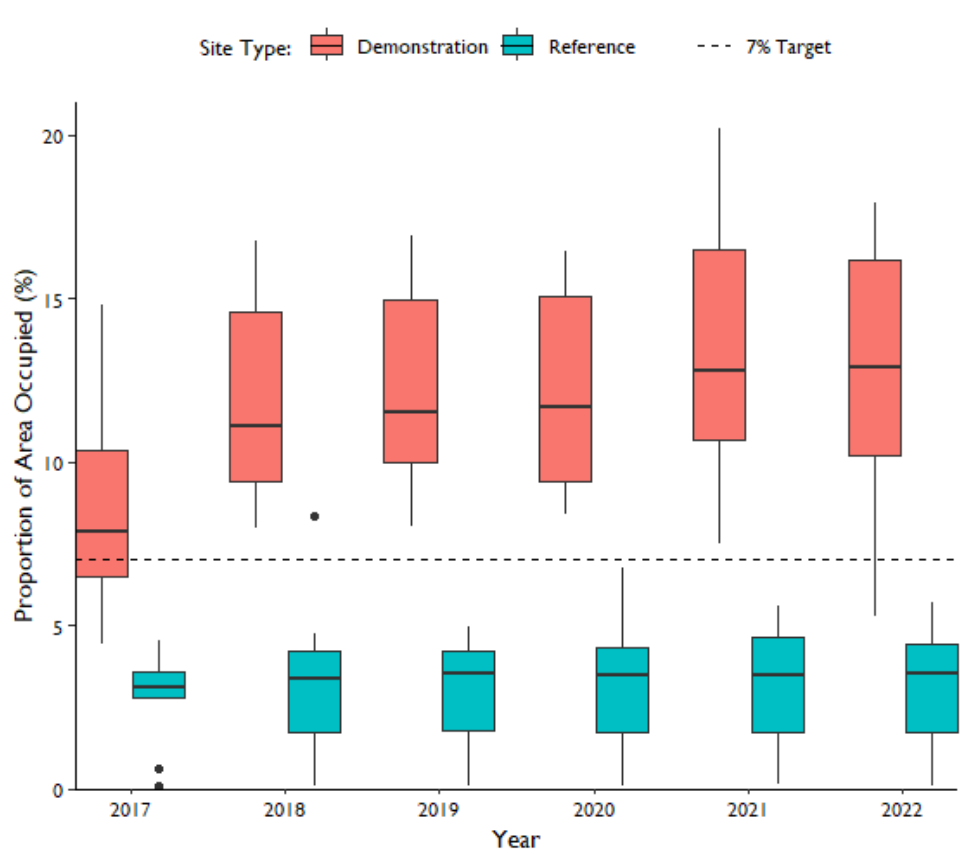


Coloured areas show wildlife-friendly habitats

Demo sites

Coloured areas show wildlife-friendly habitats

Our project startegy achieved far more than any current standard AE-Scheme manages to implement on arable farmland.



Increase in wildlife-friendly habitats on arable farmland (PARTRIDGE 2017-2022):

Demonstration sites: avg. +4.5%

Reference sites: avg. +0.5%

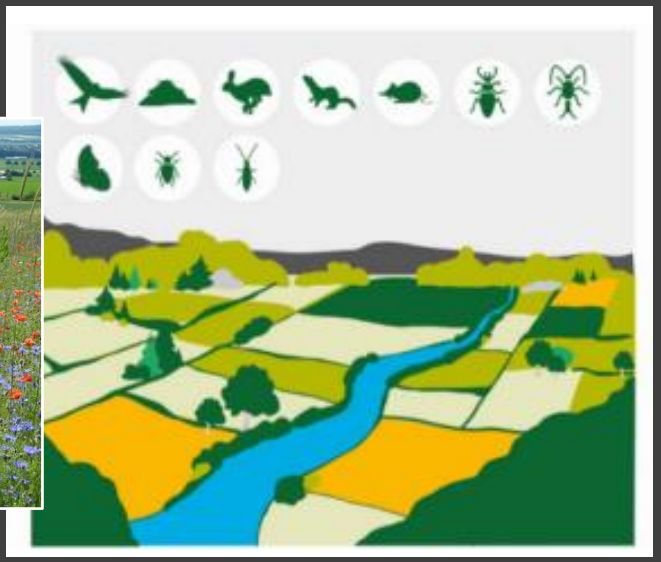
Result

Our demonstration sites have significantly more biodiversity (number and diversity of farmland birds & flower-rich habitats) compared to reference sites

Average reference site

Cheriton, England

Diemarden, Germany



Average demonstration site

Recommendations and solutions

To achieve the level of habitat improvements needed to reverse biodiversity loss on farmland, the following key issues MUST be addressed:

1. Facilitate partnerships

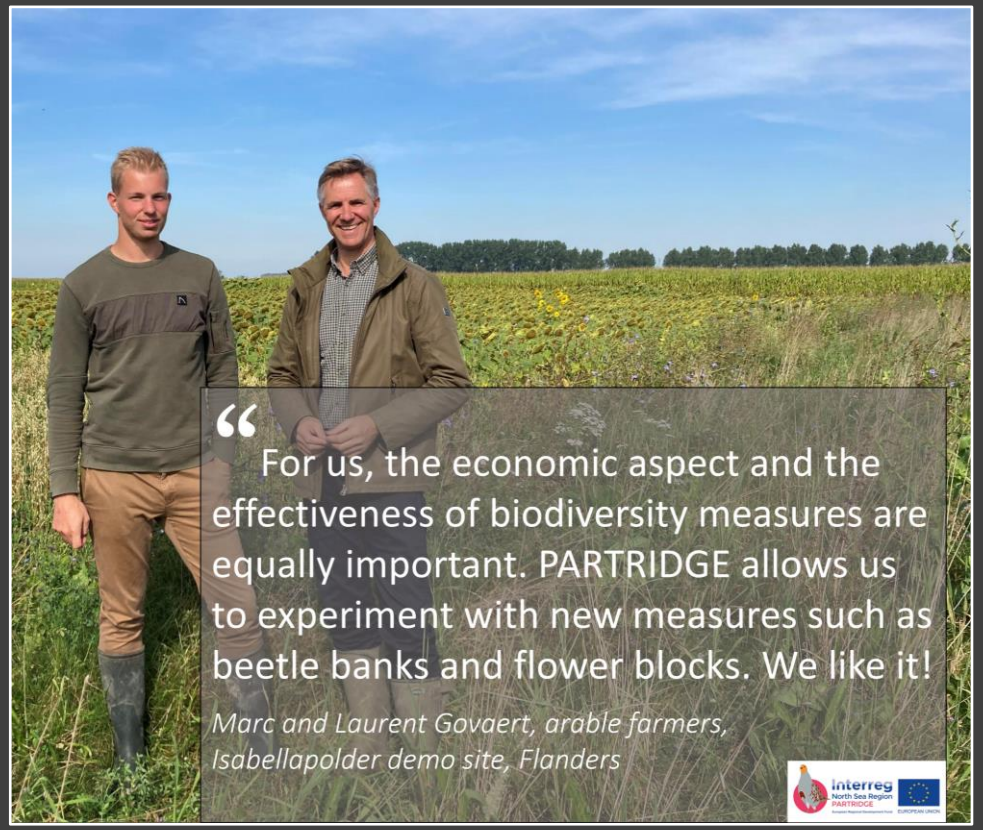
Facilitate farmer clusters, including hunters, local volunteers, NGO's and others, supported by local, regional and national authorities.

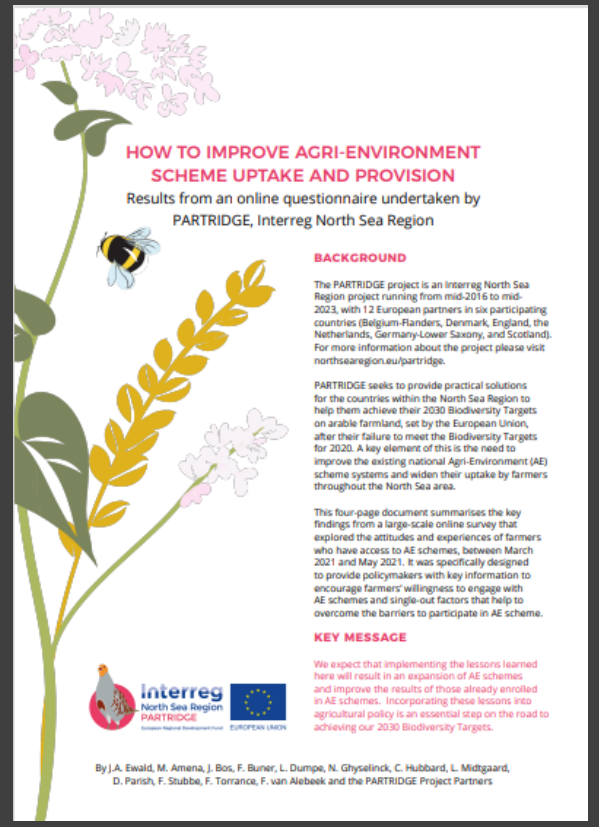
2. Improve advice

1. Paid for by government (free for farmer)
2. Give advice much more regularly
3. Improve quality of advice
   (advisors need to understand as much about wildlife, rules and regulations as about farming)
4. Advisors/field coordinators should instigate and co-organise farm walks to built mutual trust and respect among all stakeholders involved
5. Educate public about AES

3. Increase Flexibility & Payment

Management of AES options need to be more flexible without undermining their value for wildlife and payments for measures need to be higher.





4. Increase landscape scale

The single farm approach does not achieve the necessary scale to reverse biodiversity loss on farmland.

Only a landscape approach will deliver measurable biodiversity gains.

10 times 500ha

5. Increase high-quality habitats to min. 10%

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RESEARCH ARTICLE

Journal of Applied Ecology

Reversing declines in farmland birds: How much agri-environment provision is needed at farm and landscape scales?

Elwyn Sharps[1,2] | Robert W. Hawkes[1] | Andrew J. Bladon[1,3] | David L. Buckingham[2] | Jennifer Border[4] | Antony J. Morris[2] | Philip V. Grice[5] | Will J. Peach[1]

[1]RSPB Centre for Conservation Science, RSPB, The Lodge, Sandy, UK
[2]School of Ocean Sciences, Bangor University, Menai Bridge, UK
[3]Agroecology Group, Department of Zoology, University of Cambridge, Cambridge, UK
[4]BTO, Thetford, UK
[5]Natural England, Peterborough, UK

Correspondence
Robert W. Hawkes
Email: robert.hawkes@rspb.org.uk

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Abstract

1. Agri-environment schemes (AES) are the primary policy mechanism for addressing farmland biodiversity declines across Europe. Despite previous studies on the impacts of AES on biodiversity, there is little empirical evidence on the scale of provision required to reverse declines.
2. Across three regions of lowland England with contrasting farm systems (arable, pastoral, mixed), we estimated avian population growth rates (PGRs) on farmland with high AES provision ('higher-tier': average bird-friendly option cover = 7.4%), low AES provision ('lower-tier': 2.3%) and no bird-friendly AES ('no AES'). Ten-year PGRs were derived for 24 species and three multi-species groups comprising farmland-associated species ('farmland birds'), species of conservation concern ('priority birds') and species restricted to farmland ('specialist birds'). We used PGRs to simulate the proportion of the regional farmland landscape that would have to be assigned to higher- and lower-tier agreements to stabilise or increase populations.
3. In the arable and pastoral regions, 13/23 and 13/22 species, respectively, had more positive PGRs under higher-tier AES than on no AES farmland (none had more negative PGRs), compared to 4/22 (positive) and 1/22 (negative) in the mixed region. Only two to four species per region exhibited more positive PGRs under lower-tier AES compared to no AES farmland.
4. Multi-species PGRs in the arable and pastoral regions increased from no AES (strong decline), to lower-tier (decline or stability) to higher-tier (moderate or strong increase). There was no overall AES effect in the mixed region.
5. To increase regional farmland bird populations by 10% over 10 years, 47% and 26% of the farmed landscape would need to be devoted to higher-tier agreements in arable and pastoral landscapes respectively. This falls to 34% and 17% when higher-tier is targeted at localities supporting higher abundances of target

Elwyn Sharps and Robert Hawkes should be considered joint first author.

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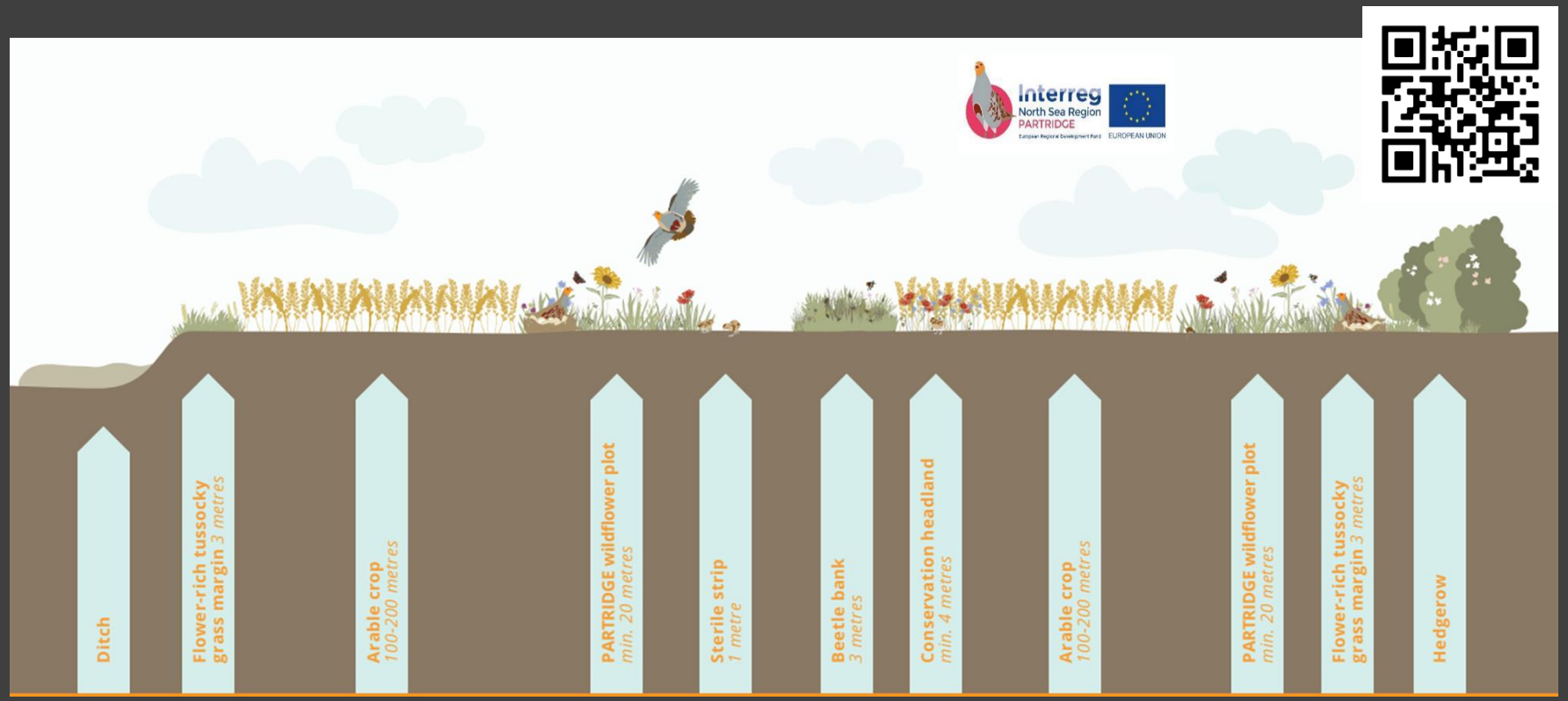
6: Continue to improve quality and variety of AES habitat options

A multitude of habitats, ideally stacked together, are needed to cater for all farmland biodiversity (create a mosaic).

Assist approach with legal predation management where possible



Some key deliverables from the PARTRIDGE project

70 farmers implemented +4% habitat measures, or an avg. 10% in total/demo site

We directly involved 615 researchers, students & volunteers to collect evidence

We held 260 demo site farm walks, informing 3600 people directly

More than 2000 farmers planted our PARTRIDGEmix across North Sea Region

The PARTRIDGEmix is now available as an AES option in NL, Flanders, England and Lower Saxony

fbuner@gwct.org.uk

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