Conceptual development and implementation of Key Pollinator Areas (KPAs) and Buzz Lines in Europe

Workshop report; 3-4 July 2025, Brussels

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2025

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Contents

Abstract

This report summarizes the outcomes of a workshop organized by the Pollination Knowledge Exchange Network (KEN) of BioAgora, in response to a policy request submitted by DG Environment to the Knowledge Centre for Biodiversity (KCBD) through the KCBD ticketing system. The workshop titled "*Concept Development for Key Pollinator Areas (KPAs) and Buzz Lines*" was held in Brussels (3-4 July 2025). It aimed to support DG ENV, the EU Pollinators Initiative and the EU Biodiversity Platform's (EUBP) Working Group on Pollinators, with a focus on reversing pollinator decline under the EU New Deal for Pollinators (2023) and the Nature Restoration Regulation (2024). Twenty workshop participants discussed approaches to identify and map Key Pollinator Areas (KPAs) and Buzz Lines (corridors of connecting pollinator-friendly habitat). The workshop was informed by, and built on, work done by the European Environment Agency (EEA) and its European Topic Centre on Biodiversity and Ecosystems (ETC BE). Participants discussed criteria for a common understanding and definition of KPAs and Buzz lines, including restoration requirements, target species, data needs, and modelling approaches. Recommendations and initial road maps (2025-2027) are summarized in this report. Key needs included: i) a collaborative framework involving multiple actors; ii) iterative modelling, ground-truthing, data improvements and expert validation; and iii) a dynamic, living map approach to adapt to evolving ecological conditions.

Foreword

In March 2025, DG Environment submitted a policy request to the Knowledge Centre for Biodiversity (KCBD) through the KCBD ticketing system for a workshop to discuss and further develop the approaches to identify and map Key Pollinator Areas (KPAs) in the European landscape, and based upon these, further develop the approaches for the identification of Buzz Lines. The KCBD assigned this task to the Science Service for Biodiversity (SSBD), which is currently being developed by the BioAgora project. The SSBD is being developed to bridge research outcomes with decision-making needs. The Pollination Knowledge Exchange Network (KEN) of BioAgora identified, coordinated and convened the expert group that contributed to the workshop.

Acknowledgements

Process Coordination and Facilitation

This workshop was coordinated through the BioAgora project. The request handling and expert coordination were overseen by:

Request Focal Points: Josef Settele, (UFZ, Germany), Adam Vanbergen (INRAE, France)

Coordination Period: 14th March 2025 – 4th July 2025

The focal point(s) served in a coordination and process facilitation capacity, ensuring adherence to ethical standards, facilitating communication between the expert working group and requesters, overseeing the peer review process, and maintaining the integrity of the methodology. Their role was specifically designed to support the independence and objectivity of the expert working group while ensuring procedural rigor and transparency.

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Conflicts of Interest and Independence: All contributors to the workshop and report (DG Env, KCBD, ETC, external experts, BioAgora focal points) were open and transparent about their relative roles and interests in the objectives of the workshop. The agenda (Annex 1) was designed to reflect this principle of transparency and openness in order that each contributor (individual or institution) had an opportunity within the workshop sessions to present their knowledge about the subject matter, their interests and objectives, and what they, individually or institutionally, and their work and projects could bring to the discussion during the workshop.

Contributions to this output are or will be recognized through:

- Clear citation and attribution in all produced documents.
- Formal acknowledgment provided to all contributors by the DG ENV.
- Integration of contributor recognition in Science Service communications and publications.
- Feedback mechanisms to inform contributors about the use and impact of their contributions.

Disclaimer: The views expressed in this output represent the collective assessment of the participants of this workshop based on available evidence at that time. The coordinating focal points and supporting institutions do not endorse specific recommendations but have ensured adherence to transparent and rigorous process standards.

For questions regarding the coordination process or to provide feedback on this output, please contact: josef.settele@ufz.de and Adam.Vanbergen@inrae.fr.

1 Introduction

The present report contains the results of the workshop “Concept Development for Key Pollinator Areas (KPAs) and Buzz Lines” which was held from midday on Thursday, 3 July, to midday on Friday, 4 July 2025, in Brussels (for programme see Annex 1). The starting point for this workshop were two reports for the ETC Biodiversity Task 1.1.32.1 “Support to the EU Pollinators Initiative – A New Deal for Pollinators”, which is planned to be published (in preparation) in early 2026 through the European Environment Agency (EEA). Experts from around a dozen current and previous projects of Horizon Europe and other funders (for participant list see Annex 2) participated and presented key findings related to pollinator biodiversity, species and ecosystem service mapping.

The European Environment Agency (EEA) and its European Topic Centre on Biodiversity and Ecosystems (ETC BE) initiated the work on conceptualising KPAs and Buzz Lines through dedicated tasks in the EEA/ETC BE Action Plan. Deliverables ensuing from the tasks were shared with the participants in advance of the workshop, as a starting point for the discussion.

The workshop aimed to support DG ENV’s in-depth analysis and discussions within the EU Pollinators Initiative and the EU Biodiversity Platform’s (EUBP) Working Group on Pollinators. It sought to guide the selection of concrete measures to reverse pollinator decline under the EU New Deal for Pollinators (EC 2023) and the Nature Restoration Regulation (EC 2024). Specifically, the workshop aimed to discuss and further develop the approaches to identify and map Key Pollinator Areas (KPAs), and based upon these, further develop the approaches for the identification of Buzz Lines (corridors connecting pollinator-friendly habitats).

2 Overarching Questions

2.1 Towards a Common Understanding of Key Pollinator Areas (KPAs)

The group emphasized the urgent need to establish a common definition of KPAs and a harmonized set of criteria for their identification across the EU.

- KPAs should specifically address protection gaps for pollinators, in the Natura 2000 network and other protected areas.
- It is essential to incorporate local-level knowledge and site-specific data to identify areas of high potential importance that are currently outside established protection networks.
- In cases where KPAs are located within Natura 2000 sites or overlapping with them, they can help to put a focus on a pollinator-friendly management within these protected sites.

2.2 Current Protection Gaps and Baseline Limitations

The main insights were as following:

- Natura 2000 provides a valuable starting point for KPAs, but it is insufficient in terms of providing targeted protection for pollinators.
- Buffer zones of varying sizes (depending upon pollinator taxa) around existing protected areas were discussed. It was recommended in the next steps to do a rapid systematic review followed by some simple modelling. This would help ensure that we have the right distance across different contexts/taxa. Some newer information will be included in the ETC reporting. Critical support zones for pollinator populations have to be identified due to their mobility and foraging ranges, as noted in studies like Nania et al. (2024).
- A significant knowledge gap exists in many Member States on species presence and abundance, particularly a lack of national Red Lists for bees and hoverflies, which limits the ability to accurately prioritize species and habitats.
- There are challenges (and decisions to be taken) over whether to maintain existing ecosystems or actively manage and restore degraded areas to achieve satisfactory levels of habitat quality for pollinator communities. A combination of both approaches would be effective in this regard.

2.3 Methodological Considerations for KPA Identification

Considerations by the group included:

- The selection and delineation of KPAs must carefully consider sampling methods and spatial resolution to avoid bias and ensure reliable outcomes.
- It is important to apply the principle of complementarity to ensure that both pollinator species richness and habitat diversity are adequately captured in defining KPAs.
- Algorithmic selection methods were recommended to support data-driven decision-making (e.g., adapting approaches proposed in Visconti et al. 2024).

2.4 The Role and Definition of “Buzz Lines”

Buzz Lines were introduced as essential landscape connectivity elements that:

- Facilitate pollinator movements (foraging and dispersal) between KPAs.

— Mitigate effects of habitat fragmentation on pollinator biodiversity.

— Support pollinator-friendly corridors at different scale (local/regional/national/EU).

— Enable pollinators to shift their geographical distribution in response to changing conditions (e.g. expanding the northern range limits or moving to higher altitudes in response to climate change).

— Should complement the enlargement of existing patches, where the latter might be prioritized over connecting sites if funding is limited.

Criteria for Buzz Lines include:

— Connecting flower-rich and diverse pollinator habitats, taking also into consideration nesting and other relevant resources.

— Promoting short-distance connectivity through habitat mosaics and ecotones (e.g., forest margins, riverbanks).

— Enabling long-distance connectivity between KPAs and protected areas to build a future EU-wide ecological corridor network and support migrating species.

— Addressing pressures from the network of transportation infrastructure (e.g., road, rail, electric line corridors, fire breaks), which may function as both barriers and potential corridors.

— Ensuring alignment with local, regional, and national policies.

— Designing dynamic, adaptable maps rather than static corridor plans.

2.5 Current Status and Restoration Needs

There is a pressing need for effective pollinator restoration measures in the upcoming Nature Restoration Plans that Member States are required to prepare. Restoration plans should:

— Include KPAs and specific areas for intervention.

— Be based on clear, standardized methodologies.

— Support cross-border cooperation to ensure species movement and ecosystem connectivity.

— Demonstrate measurable improvements in pollinator populations over time.

2.6 Investment Priorities and Species Selection

The group recommended as following:

— A key recommendation was to avoid focusing solely on rare species, as this could misdirect limited resources.

— Priority should initially be given to species with higher abundance and faster recovery potential to maximize restoration impact. But it should be noted that numerous species of conservation importance have lower abundances and slower recovery. These must not be omitted in the longer term.

— Selection of KPAs and Key Biodiversity Areas (KBAs) should underpin an abundant and species-rich pollinator community that delivers a resilient pollination ecosystem function for all flowering wild plants and crops; i.e., it should ensue health and integrity of ecosystems while providing ecosystem services (e.g., crop pollination, aesthetic, wider biodiversity).

2.7 Integration with Agriculture and Functional Connectivity

The group suggested that:

- Restoration strategies should integrate pollinator-friendly habitat, species, and agricultural landscapes.
- Healthier pollinator populations are directly linked to sustainable agricultural practices.

These elements should not be treated in isolation, but as interconnected components within the broader landscape, especially given the mobility and often broad habitat requirements of many pollinator species.

2.8 Modelling, Data Needs, and Adaptive Planning

Data needs include:

- Up-to-date species lists, distribution, abundance and trait data, particularly in Southern Europe.
- Habitat quality assessments (current and future; the latter refers to modelling under different scenarios as well as to the need of assessing habitat quality over time).
- Local expert input and citizen science contributions.

Established modelling approaches such as Species Distribution Models (SDM) should be complemented by:

- Occupancy models (e.g. accounting for repeated measures and detection probability).
- Integration of indices of climate and land-use pressure.
- The use of opportunistic data (those haphazardly collected by citizen science as well as, for example, periodic data from projects) and multi-model approaches.

Restoration and connectivity plans should be dynamic and adaptable, recognizing that Buzz Lines and priority areas may change over time due to ecological shifts, landscape dynamics and climate change. Model-based strategic foresight planning is an important component here

2.9 Next Steps and Recommendations

- Identify and define the most effective concrete restoration measures for pollinators in national restoration plans.
- Develop dynamic mapping tools to guide restoration and connectivity strategies.
- Establish investment criteria that ensure resources are allocated where they can have the highest impact.
- Encourage cross-border collaboration (e.g., via the EUBP WGP and NGO networks) to strengthen ecosystem connectivity across Europe as well as within MS, as sub-national coordination is key, especially for implementation.
- Continue expert consultations to refine methodologies and integrate feedback (e.g., from ETC reports and Horizon projects).
- Consider organizing a physical colloquium or meeting on European pollinator conservation to maintain dialogue and coordination, potentially to coincide with an international conference (e.g. learned society annual meeting). This could and should take place under the Pollination KEN of BioAgora.
- The outputs of this workshop contribute to improving ETC reports and supporting further work on Buzz Lines and KPA mapping under the TCNRR Article 10 process.

3 Explore approaches for the identification of KPAs and Buzz Lines, based on ETC material

For **data collection**, a hybrid approach for generating input data for the KPA scoping might be optimal. This means that if accurate atlas data is available, e.g. in the Netherlands, one uses that directly to identify potential KPAs. When observational data is scarce, biased or outdated, then using SDMs in combination with expert-based approaches, e.g. based on knowledge of availability of habitat and other resources, would be preferable.

For **mapping of KPAs**, the group favored the use of both threshold-based and complementarity-based approaches. Complementarity-based approaches can be used at national scale to identify broad areas of importance for KPAs. They are based on coarser distributional info and allow to identify hotspots of uniqueness in species assemblage due to presence of narrow-ranging species or species richness, as well as hotspots of irreplaceability, which best close gaps in protection of under-protected species outside of these endemicity hotspots. Threshold-based approaches would be best used to refine this first screening, as they can best account for fine-scale ecological needs and environmental characteristics of species, and can also best rely on local knowledge.

Where good knowledge exists across all species sets and at the country level, and there is no need for a first screening, both approaches could still be used, like in KBAs which use irreplaceability analysis as criterion E together with threshold-based criteria (A-D).

The group proposed a tiered approach that focuses on both the quality and quantity of areas for prioritization and highlighted several key considerations for **identifying and prioritizing KPAs** under the EU Pollinators Initiative. While as a baseline a KPA must have important populations already, participants emphasized that historical importance of a location may be less relevant than an area's potential to support pollinators in the future, especially for species with very specific habitat requirements. The focus on potential also presents the idea of KPAs that do not yet have important pollinator populations but could have in the future. This potential is determined not only by current degradation levels of the habitat or landscape area, but also by the feasibility and cost of the ecological restoration. It was also noted that for butterflies, and potentially for other taxa, the area of habitat is more important than habitat connectivity (Bishop et al., 2025).

During a discussion of the **criteria for mapping KPAs** it was indicated that, taking the example of the Netherlands, the thresholds for Important Butterfly and Moth Areas (IBMAs) had needed to be set at a level that ensured a reasonable number of sites well-distributed across the country. They felt that besides conservation value, the general enjoyment of natural areas for people was important. If the thresholds were set too high in this Dutch case, then only some areas in the south of the country, close to the Belgian border, would be valued. The group therefore seemed to favor the idea of providing general guidelines on setting thresholds but not being prescriptive with universal thresholds for all taxa and all countries.

With regards to **ranking sites for prioritization**, it was unclear to participants what will happen to the sites designated as KPAs, or provided as maps for any kind of planning, without a legal status per se. Furthermore, it was unclear what the level of ambition that MS will have is. For instance, how many sites they want and whether these sites alone should have the goal of reversing the decline of pollinators, or these sites should be the priority to safeguard pollinators, but they would require broader landscape- or country-wide measures beyond the KPAs themselves. Hence, the group suggested to recommend developing, quantifying and finally applying a range of thresholds and then using this to rank sites; i.e., category 1 are the sites that are identified with the most stringent thresholds, category 2 with somewhat more generous thresholds, and so on. With this approach (including reassessment over time) we can obtain not only a map of sites with criteria that trigger them, but also a ranking of importance of sites. 'Good habitat quality' was defined as areas offering diverse flowering plants and suitable nesting opportunities for pollinators. Participants noted that KPAs could take various forms, including areas in good current condition, areas with high restoration potential, and even urban environments that had sufficient diversity of 'green spaces' (Baldock et al., 2019).

A **structured, systematic approach to conservation mapping** is necessary. Species-level data is often the starting point for identifying KPAs; however, challenges remain for data-deficient species and countries. From species, the focus should extend to habitat-level assessments. Threatened and rare species—often associated with specialized or rare habitats—can be addressed through Species Action Plans. These species typically have smaller ranges and may appear in diverse communities, though their presence alone does not necessarily indicate high habitat quality.

Looking ahead, discussions raised the importance of **clarifying the goals of conservation efforts**: are we aiming to protect pollination function, specific species, or habitats (including intermediate or transitional ones)? Attention must also be given to the role of both temporary and permanent habitats, with complementarity of these two categories across landscapes being a critical principle for effective planning. Emphasis was placed on red-listed species and the use of habitat maps as key inputs for identifying KPAs. The group highlighted the need to incorporate risk assessment and future scenarios to account for potential changes and threats to pollinator habitats.

We also have to consider the prevention of extinctions, as this could be key for species at the higher end of the rarity/threat spectrum, which may have specialist requirements that may not come out through other potential habitat or Red List thresholds. E.g. include specific areas for the most threatened, even if otherwise in areas of low species diversity of ecosystem service value.

Effective mapping efforts through ground-truthing are needed. When KPAs are identified based on models and expert opinion and not on extensive observation data, ground-truthing of these putative KPAs would be necessary. It would be needed to confirm if these areas host the species that trigger the KPA status, and understand what is the habitat condition and whether restoration actions are necessary. This could be through LIFE projects, citizen science campaigns involving academics/NGOs, or other means. For this, active involvement of Member States is necessary throughout the process to ensure their engagement, validation, and ownership. As this is a top-down initiative, securing national-level participation is essential for successful implementation.

The next objective is therefore to develop a proposal for a roadmap that can guide the restoration process, which can be adapted and implemented in different contexts. To achieve this, it is crucial to carefully design the process:

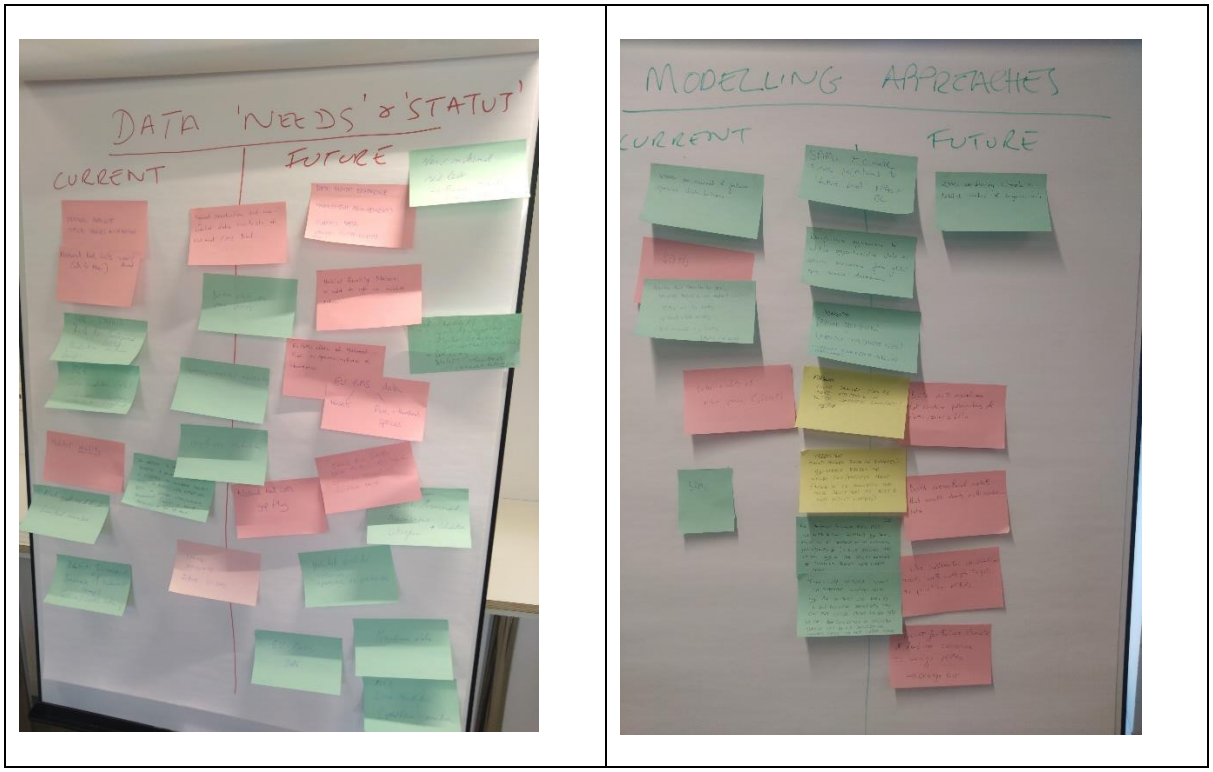
- Identify and secure access to appropriate data sources.
- Determine how the maps will be produced using standardized methodologies.
- Prioritize which areas should be addressed first, using agreed standardisation criteria, which at the same time are also adaptive to consider local MS requirements.
- Assess the types of land cover and land uses adjacent to protected areas (PAs).
- Use prioritized KPAs to identify and understand the pressures impacting them.
- Develop approaches to address these pressures effectively.

This process must result in a concrete and practical tool to support decision-making for pollinator restoration and protection at both national and transnational levels, including the reassessment over time for those elements that are/can be dynamic (e.g., based on the above list: land use, land cover, pressures), as well as the prioritization ranking.

4 Define data availability/needs and modelling approaches

On the second day, the meeting continued with a parallel group exercise where the idea was to define data availability/needs, modelling approaches and write them in post-its (Figure 1). The exercise was followed by a discussion between the participants (scientific experts and EC policy officers), exploring the mapping exercise and 2025 roadmap towards the completion of the KPA mapping exercises and to start developing a 2027 roadmap for Buzz Lines.

Figure 1. Exercise about data needs and modelling approaches



Source: picture taken from an exercise in the workshop

4.1 Roadmap Towards 2025/26: Completion of Key Pollinator Areas (KPA) Mapping

Data gaps identified by the group included:

- Continental-scale data for bees is generally sufficient, but there are significant gaps at regional and local levels, particularly in Southern Europe. It has to be stressed that current occurrence data do not allow to model species distribution at high resolution and to capture fine scale land-use effects. SDMs can currently capture a relatively small % of species. On-going SDM exercises at 10 km resolution only cover 35% of wild bees, 27% of hoverflies, 68% of butterflies, and ca. 40 % of moths of the known EU fauna.
- National species lists and habitat quality assessments require urgent updates and development.
- Fine-scale data on pesticide exposure and local habitat-specific pressures (~1 km resolution) is currently lacking.

Recommendations on **data sources and methodologies** included:

- A blended modelling approach (also depending on what data is available), combining:
    - Species Distribution Models (SDMs).
    - Species richness and abundance estimates.

    - Occupancy models.
    - Opportunistic data from citizen science and expert networks.
    - Expert based assessment of species-habitat associations.

— Continuous integration of data on climate and land-use pressures is essential.

— Citizen science initiatives (e.g. European Butterfly Monitoring Scheme [eBMS] network, running in all 27 EU MS) and expert volunteer contributions are valuable for filling data gaps.

— Ground-truthing and validation with national experts and local stakeholders is critical to ensure reliability.

— Mapping should balance large-scale overview with fine-scale detail (ranging from 3 ha to 10,000 ha depending on purpose).

— Data collection and modelling should follow a living data approach, with dynamic updates and annual refinements.

— Approaches for measuring and/or modelling local pressures could include high-resolution remote sensing products (e.g. LiDAR for assessments of habitat quality), or land-use based modelling (e.g., pesticide fate and drift models to assess agrochemical exposure).

Operational and **engagement** considerations included:

— Co-creation of KPAs with Member States is essential for validation and national ownership.

— KPAs should complement Natura 2000 networks and improve pollinator-specific protection and management within Natura 2000 areas.

— KPAs inside or overlapping with Natura 2000 sites can help to implement a pollinator-friendly management

Immediate **next steps** include:

— Prioritizing data needs and modelling approaches in the ETC report.

— Submitting workshop outcomes to ETC for integration into ongoing work.

— Collecting feedback from experts and related projects such as Eklipse.

— BioAgora may support continued coordination of dialogue in support of further EC requests.

4.2 Roadmap Towards 2027: Development of Buzz Lines

Suggested objective:

— Establish a roadmap for the identification, mapping, and management of Buzz Lines as essential landscape connectivity elements for pollinators.

Key considerations:

— Buzz Lines should support both short-distance (local/regional) and long-distance (transnational) connectivity.

Key factors include:

— Habitat diversity and mosaics.

— Reduction of barriers such as transport corridors. These, depending on the constellation, may also have connecting functions, which leads to considerations of how options to transform potential barriers into corridors might look like.

— Integration of landscape-level and connectivity data.

Close alignment with the EU Pollinator Monitoring Scheme is recommended, as EU-PoMS will provide data on the four most important pollinator taxa, which can serve as a basis for the identification of Buzz Lines. Here, also national and transboundary cooperation is needed for effective network development. It would also be important to link up with LUCAS and EMBAL.

Potential actions to catalyse the development of Buzz Lines include:

— Launch a targeted data exploration and modelling phase for Buzz Lines starting in 2025.

— Develop monitoring protocols, aligning with EU PoMS where feasible, but adapted to Buzz Lines where necessary.

— Organize a physical colloquium or mini-conference on European pollinators to consolidate input from Horizon projects and other initiatives.

— Consider creating a BioAgora-facilitated task force to ensure ongoing collaboration and coordination.

4.3 Modelling Approaches and Validation for KPAs and Buzz Lines

The group suggested that modelling should integrate:

— Habitat cover, quality and configuration, climate change, land-use, and pesticide pressures.

— Presence/absence, species richness, and abundance estimates.

It also was suggested to establish standard protocols for ground-truthing and data validation, which can be supported by national experts and citizen science networks.

Experts should guide:

— Habitat-species association assessments and modelling.

— Threshold definitions (see chapter 3 on ranking sites for prioritization)

— Prioritization criteria definition for KPAs and Buzz Lines.

4.4 Strategic and Practical Considerations

Purpose-driven mapping:

— The intended application (restoration, connectivity, prioritization) should guide scale and mapping detail.

Integration with Member States:

— KPAs should be co-developed and integrated into national restoration plans, with cross-border cooperation encouraged.

Complementarity:

— KPAs should enhance, not duplicate, Natura 2000 and existing protected areas. In cases where KPAs lie within Natura 2000 sites or Protected Areas these KPAs should help to protect species, traits or resources not protected or underrepresented in the existing protection network.

Synergies and future opportunities:

— Collaboration should continue with ongoing and future Horizon projects, ETC initiatives, and BioAgora (Science Service).

— DG ENV has also requested the formation of a network/cluster of pollination-relevant EU-funded projects that would meet once per year to exchange on their progress, synergies and work ahead. BioAgora KENs such as the one on Marine and the one on Transformative Change, have already organized such cluster events, and RTD-REA have been eager to support them. This point will be further discussed within BioAgora Pollination KEN and coordination committee.

Options discussed for the next step of the exercise (mapping of KPAs) were:

— Submitting a ticket to the KCBD to be then handed over to EKLIPSE via BioAgora for an in-depth, inclusive answering process, following EKLIPSE protocols.

— DG ENV launching a separate process, without involving KCBD/BioAgora/EKLIPSE.

Having this exercise done internally at the JRC or as an 'urgent request' by the SSBD, was not considered sufficient for the wide scope of this exercise.

4.5 Conclusions and Next Steps

Key agreements:

— Building a collaborative framework involving Member States, experts, citizen scientists, and European institutions is essential.

— Both the KPA and Buzz Lines roadmaps require iterative modelling, ground-truthing, data improvements, and ongoing expert validation.

— A dynamic, living map approach is crucial to adapt to evolving ecological conditions.

Actions arising from the workshop:

— Finalize the ETC report, including aspects of data gaps and modelling priorities. The final report was originally expected to be published in late 2025[1].

— Explore the possible role of BioAgora in facilitating continued collaboration.

[1] Due to ETC rules, the ETC on pollination has to invest a bit more into a formally correct approach in order to be allowed to get the ETC deliverables published, which most likely will not happen before spring 2026.

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List of figures

Annexes

Annex 1. Workshop Programme

CONCEPT DEVELOPMENT FOR KPAS AND BUZZ LINES

WORKSHOP PROGRAMME; BRUSSELS 3-4TH JULY 2025

Date (version): 29 June 2025

Venue: https://www.maison-joliot-curie.eu/

Maison Irène et Frédéric Joliot-Curie (INRAE place)

100 Rue du Trône, 1050 Bruxelles, Belgique

Aim: This workshop is organised by the Pollination Knowledge Exchange Network (KEN) of the BioAgora project. The objective of the workshop is to support the ongoing in-depth analysis and discussions underway in the EU Pollinators Initiative and the EUBP Working Group on Pollinators. It is intended to facilitate the selection of appropriate measures and actions needed to reverse pollinator decline both under the actions of the EU New Deal for Pollinators and under the Nature Restoration Regulation.

WORKSHOP PROGRAMME

Time	Person/Team in charge	General topic	Specific expectations
3rd July 2025			
12:00		Arrival and Lunch (provided)	
12:45	Josef Settele	Welcome and overview on the aims of the workshop	
12:55	Vujadin Kovacevic	EU pollinator Initiative (intro) and ideas and aims behind the KPAs and Buzzlines;	
13:05	Adam Vanbergen	Intro to BioAgora	
13:15	Katarzyna Biala	Intro to the ETC and specifically to the scope and tasks of the EEA/ ETC BE (Task 1.1.32)	
13:25	Piero Visconti Felix Deiss	State of EEA/ ETC BE (Task 1.1.32) on KPAs State of EEA/ ETC BE (Task 1.1.32) on Buzz Lines	Starting point for discussions on definitions of KPAs/Buzz Lines, methods and requirements for continuing and extending the EEA/ETC mapping programme
13:45	Participants (info by science colleagues ca. 5 minutes each)	Relevant info (approaches, data, models..) of EU and other projects	Spotlights by participants to relevant work and data underway or recently completed by Horizon projects focused on pollinator biodiversity and ecosystem service mapping
14:45		Break	
15:15	ETC team (moderation) Members of EU projects	Discussion on the **definitions** of KPAs and Buzz Lines;	
15:45	All participants	Discussion of approaches for identification of KPAs and Buzz Lines (active brainstorming – to further develop ETC material)	2 Parallel groups moderation and minutes KCBD/BioAgora: possibly Paris & Sepp (1) and Adara & Adam (first proposal – tbd during the event)

17:00	Rapporteurs	Reporting back	
17:15		End of day	
4th July 2025			
09:00	ETC/Vujadin	Objective day 2	Commission Needs/proposals for KPAs (and Buzz Lines)
09:15		Exploring options to map KPAs (incl. Buzzlines?)	2 parallel groups a) defining data availability/needs b) modelling approaches (detailed decisions during meeting)
10:00		Reporting	
10:15		Break	
10:30	tbc	policy/practice requirements (possibly incl. some pilot mapping)	
10:30	Vujadin (moderation)	2025 roadmap towards the completion of the KPA mapping exercises and to start developing a 2027 roadmap for Buzz Lines. (incl. aim to develop appropriate tools, e.g. dashboard maps)	Item may be expected to inform a new subsequent KCBD ticket for an urgent request to BioAgora to complete the task. The workshop is therefore expected to act as a 'stepping stone' in this direction by completing the scope and terms of reference for a subsequent desk-based mapping of KPAs and Buzz Lines (including identification of potential contributors).
11:30	ETC Team (mod)	Recommendations for the finalisation of the report on KPAs	
11:45	ETC Team (mod)	Further develop Buzz Lines approaches	Identification of Buzz Lines (corridors of connecting pollinator-friendly habitat).
12:00		END of workshop	

Annex 2: List of participants

CONCEPT DEVELOPMENT FOR KPAS AND BUZZ LINES

LIST OF WORKSHOP PARTICIPANTS; BRUSSELS 3-4TH JULY 2025

Date (version): 26 June 2025

Participants: Relevant scientific and policy experts from the European Commission (DG ENV, JRC) and Horizon projects, Bioagora, and members of the EEA/ ETC BE (Task 1.1.32) towards identification and mapping of KPAs/Buzz Lines.

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