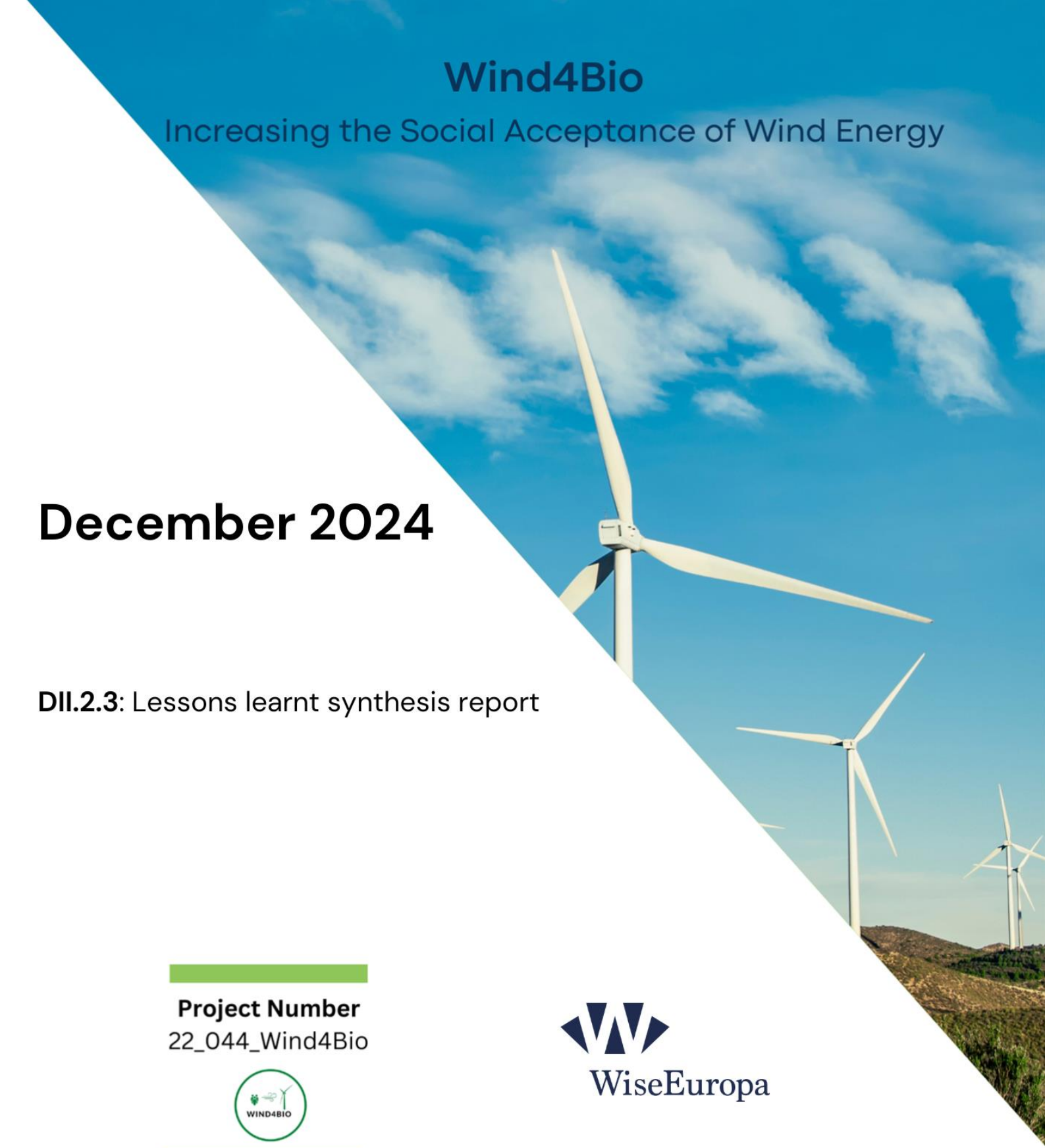
Wind4Bio

Increasing the Social Acceptance of Wind Energy



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WIND4BIO

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European Climate Initiative EUKI

Wind4Bio

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Executive Summary

This report aims to collect, compile and present all the main discussion points and takeaways of the three workshops organised in Greece, Latvia, and Poland along with policy recommendations on how public authorities can improve their cooperation with civil society on mitigating the impact of wind power projects on biodiversity, in the framework of the Wind4Bio project. The document is structured in four main sections.

- **Section 1** introduces the issue of the adverse impacts wind energy development can have on local biodiversity and provides a brief overview of Activity AII.2 within the framework of the Wind4Bio project.
- **Section 2** presents the three thematic workshops held in Greece, Latvia, and Poland, focusing on the topics discussed and the lessons learnt from each workshop.
- **Section 3** discusses in a comparative way the lessons learnt and recommendations from each workshop, highlighting similarities and differences among opinions expressed during the three regional workshops.
- **Section 4** provides recommendations for the joint development of the consultation mechanism, along with policy recommendations for optimised cooperation between public authorities and civil society.

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1. Introduction

The rapid deployment of renewable energy sources (RES), with wind energy playing a significant role, is a fundamental element of the policy initiatives launched by the European Commission to achieve the long-term goal of carbon neutrality by 2050[1]. However, it is estimated that the EU will fall behind its ambitious target to reach 425GW of operating wind farms until 2030[2]. Thus, EU member states have to accelerate the rate of new installed wind farms to close this gap. Holistic spatial planning based both on ecosystem restoration and collaboration among civil society, industry stakeholders, and public authorities can significantly increase the rate and the economic efficiency of wind power deployment[3]. This strategy could be successful due to the minimisation of conflicts over public space between different stakeholders and the promotion of balance between natural environment and human activities.

The adverse effects associated with the life cycle of wind turbines represent one of the main barriers to the social acceptance of wind energy and, therefore, its expansion. The impacts on the economic and social life of the communities close to wind farms, the landscape aesthetics, the cultural landmarks as well as the local wildlife have been identified as the main stakeholders' concerns driving local opposition[4]. Particularly, the installation of wind farms and the associated auxiliary facilities, i.e., transformers and substations, without adequate spatial planning could result in increased risks to local biodiversity due to ecosystem degradation, displacement of natural habitats and bird collisions.

Thus, the collaboration between civil society, administrative entities and wind energy industry can support biodiversity preservation and mitigate social opposition to wind energy development. Having deep knowledge and understanding of their territories, local communities would offer valuable insights into regional flora and fauna and indicate potential risks and, therefore, improve the effectiveness of wind farms' planning and development phases. In this context, the Wind4Bio project focuses on mitigating biodiversity concerns related to planning, installation, operation and decommissioning of wind turbines based on

[1] https://www.consilium.europa.eu/en/policies/green-deal/fit-for-55/

[2] https://windeurope.org/intelligence-platform/product/wind-energy-in-europe-2023-statistics-and-the-outlook-for-2024-2030/#overview

[3] https://www.wwf.eu/?11885916/PR-Blowing-in-the-Wind-report

[4] https://www.mdpi.com/2071-1050/12/22/9352#B6-sustainability-12-09352

civil participation and transparent public dialogue in order to facilitate wind energy deployment. The project promotes a collaborative approach aiming to balance wind energy expansion with societal values and expectations as well as environmental regulations and concerns. Community engagement and participation throughout the project's life cycle should not be considered a legislative requirement or even procedural hurdle, but an appropriate strategy towards effective and successful implementation of wind energy projects.

1.1 Activity II.2

Based on previously identified good practices and developed recommendations to enhance collaboration between public authorities and civil society (Activity AII.1), the Wind4Bio partners organised regional workshops to enhance their capacity for establishing permanent consultation procedures aiming to pinpoint and address risks on biodiversity and wildlife due to wind farms' development (AII.2).

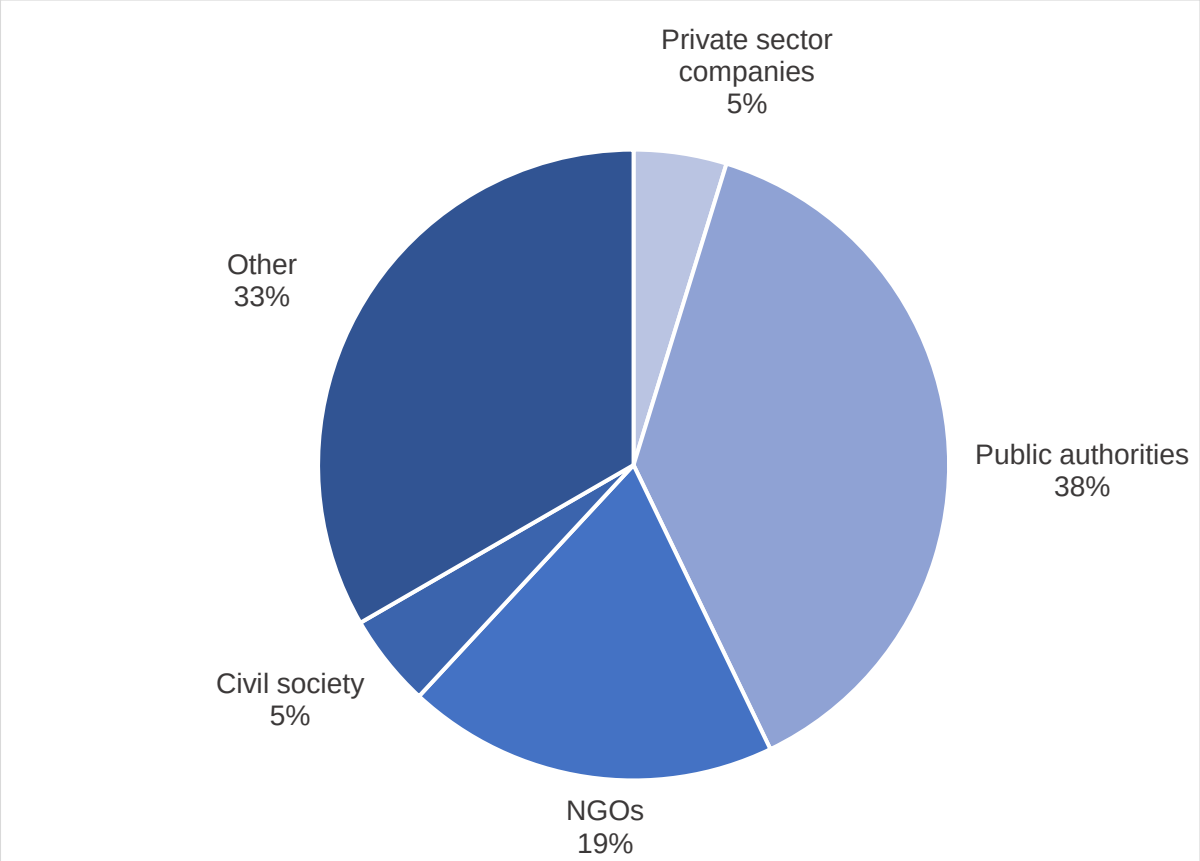
The main results and lessons learnt of the national thematic workshops will provide valuable insights for the development of a permanent consultation mechanism to strengthen communication between administrative authorities and civil society and promote public participation and provision of local experience and knowledge during wind energy spatial planning.

The present report focuses on the key issues that guided the discussions and the main takeaways of the three workshops organised in Greece, Latvia, and Poland, along with policy recommendations on how effective collaboration between public authorities and civil society can be established in order to mitigate the biodiversity impacts of wind energy development.

2. Thematic Workshops

Enabling local communities and civil society organisations to actively become involved in identifying and indicating potential impacts on biodiversity associated with the whole life cycle of wind energy projects is one of the primary objectives of the Wind4Bio project. In this context, the series of capacity-building workshops in Greece (organised by UPAT with PROMEA's support), Latvia (organised by Green Liberty) and Poland (organised by Wise Europa), brought together public authorities, civil society representatives, non-governmental organizations (NGOs) and wind energy industry stakeholders (Figure) to foster continuous collaboration and establish a consultation mechanism for identifying and mitigating the biodiversity threats posed by wind farms.

Figure 1. Stakeholder groups that participated in the three thematic workshops of Activity AII.2



2.1 Thematic Workshop in Greece

The thematic workshop on enhancing collaboration between civil society and administrative authorities in Greece was organised by the University of Patras (UPAT) with the support of

PROMEA on the 22nd of May 2024. The main objectives of the workshop were to foster social engagement and support both civil society and public entities to work together in order to create a permanent consultation mechanism. The latter will focus on the identification and mitigation of potential biodiversity threats posed by wind energy projects.

2.1.1 Participants

The workshop was organised in hybrid format bringing together 24 participants (6 on site and 18 remotely), including representatives from regional authorities, civil society, universities and research institutions.

2.1.2 Presentations

The contributions of public authorities' attendees provided valuable perspectives to facilitate the discussions towards the delineation of the requirements for a permanent consultation mechanism. Moreover, the BIOWIND project, an Interreg Europe project in which UPAT, PROMEA and the Region of Western Greece are collaborating with eight more European partners, was presented. BIOWIND's approach promotes spatial planning which incorporates community and environmental concerns to increase the social acceptance of wind energy across Europe.

The representative of the Region of Western Greece highlighted the importance of the participation of regional administrative authorities not only in permitting procedures but also in designing the legislative and regulatory frameworks related to the development of RES. The representative of PROMEA presented good practices and policy recommendations identified during activity AII.1 towards the development of a well-designed consultation mechanism. The presentation emphasised the effectiveness of specific strategies, i.e., participatory approaches, awareness campaigns, common funding schemes, and consultation processes, in promoting public dialogue between communities, public authorities and wind energy industry as well as mitigating and resolving potential conflicts among all stakeholders. UPAT's representatives presented a pilot version of the consultation mechanism under development, which facilitates public dialogue throughout the whole life cycle of wind energy projects.

2.1.4 Lessons Learnt

Participation as a requirement for EIAs

The legislation that is currently applicable for the development of RES in Greece requires public participation during the planning phase. Specifically, the Special Framework for Spatial Planning and Sustainable Development for Renewable Energy Sources[5] promotes community participation and engagement during the permitting phase through consultation procedures such as public meetings. Similarly, the legislative framework that regulates RES development in Greece requires participatory Environmental Impact Assessments (EIAs) in order to incorporate public concerns and local knowledge in the assessment. In this context, the Wind4Bio consultation mechanism would enable Greek regions to meet these requirements by gathering civil society's concerns and suggestions during the planning phase and integrating them into decision making procedures.

Joint utilisation of digital and traditional communication methods

There was consensus among the participants about the added value of combining traditional engagement and communication methods with modern digital ones to enhance the public dialogue regarding wind energy developments and reduce the social opposition to renewable energy projects. Traditional communication approaches have proven particularly effective in the case of isolated or remote areas where network infrastructure is underdeveloped and there is limited digital literacy among local citizens. As a result, in-person consultation methods, such as physical meetings, are essential to increase the social acceptance of planned renewable energy developments. Participants indicated the existence of a platform providing information about planned renewable energy projects, which is operated by the relevant Greek regulatory authority. However, it was highlighted that its scope is quite different compared to the Wind4Bio project approach.

Quality of information disseminated

The lack of understandable, in-depth, and easily accessible information regarding both the potential adverse effects of wind energy expansion on natural ecosystems and human health, but also the environmental and financial benefits related to the development of wind energy is one of the primary drivers of social concerns and opposition. In order to facilitate successful wind energy development, wind farm developers and operators should ensure the provision

[5] https://www.kodiko.gr/nomologia/fek_a_241_2016.pdf

of comprehensive, accurate and evidence-based information to citizens, increasing their awareness of wind energy advantages and actual impacts on economic activities, wildlife, and local communities. The participants underlined the significant role of local research institutes and universities in adequately informing local communities and, therefore, eradicating social opposition to wind energy expansion as their research results and announcements are widely accepted by civil society.

2.2 Thematic Workshop in Latvia

On the 24th of May, Green Liberty organised the Latvian thematic workshop on social engagement in the development of wind energy projects. The main objectives of the workshop were to understand social perspectives towards wind energy expansion and propose strategies to promote the involvement of civil society in wind energy planning. In this context, the workshop also aimed to bring together representatives from communities, NGOs, wind energy industry, and public entities in an interactive discussion on the operational requirements and features of the permanent consultation mechanism.

2.2.1 Participants

The Latvian workshop took place at the House of EU House in Riga, Latvia bringing together 24 participants representing public authorities (9), regional NGOs (9), the public sector (3), and civil society groups (3).

2.2.2 Presentations

During the workshop, five presentations were delivered by representatives of NGOs, think tanks and wind park developers. Initially, a short presentation of the Wind4Bio project by Green Liberty (NGO) was delivered focusing on a) the identified good practices to enhance social engagement in wind energy projects, b) the designed online consultation mechanism, and c) the key takeaways of the working groups discussions. Then, Latvian Wind Energy Association, the largest association of wind energy developers in Latvia, discussed the public perspectives regarding wind energy development and the opposition by residents to proposed wind energy projects near their communities also referred to as NIMBYism (Not In My Back Yard). *Latvijas veja parki*, a joint effort of national energy company *Latvenergo* and national forest enterprise *Latvijas valsts meži*, shared their experience in mitigating local communities' opposition to wind energy projects by organising public consultation meetings during the

projects' pre-planning and planning phases. Afterwards, Latvian think tank *PROVIDUS* highlighted the importance of community participation in project developments based on the results obtained from their previous research on territorial planning and construction projects. Lastly, an expert from Green Liberty informed the participants on perspectives of forming energy communities as one of the solutions for improving societal acceptance.

Latvian Wind Energy Association

Latvian Wind Energy Association presented the results of an annual survey-based research regarding public opinion towards RES in Latvia, which highlights that less than half of the survey participants (46.9%) support the installation of wind energy farms close to their territories. Opposition stems from concerns about unclear benefits of wind energy farms to local communities, and potential impacts on human health (due to infrasound and shadow flickering), land value, tourism, and local wildlife.

To mitigate the public's concerns and also enhance their public image, wind farm construction companies often develop an inner code of conduct and corporate responsibility guidelines which go beyond regulatory mandates for wind energy projects, outlining good practices for social engagement throughout the wind farm's life cycle – from planning to decommissioning.

Latvijas veja parki

Latvijas veja parki, pointed out that wind energy expansion in Latvia has slowed down due to both regulatory barriers but also social opposition. Wind farm development is hindered by time-consuming administrative processes, a lack of national renewable energy development strategy and spatial plan, and a shortage of skilled workforce and experts in RES. Social opposition arises from limited involvement in the development processes and the spread of misleading information about wind energy. As pointed out by *Latvijas veja parki*, despite rising support for wind energy projects in Latvia, the project boom over the last two years has led to public scepticism regarding the projects' cumulative impacts on the environment and local economy.

To address public scepticism, the company is carrying out communication activities, including the creation of an informative webpage and publishing of articles on local media. In addition, the company has organised public conferences and thematic seminars during the EIA process of planned wind farms where local inhabitants could engage in discussions with domain experts on various topics, including landscape and biodiversity impacts of particular wind farms and socioeconomic implications of wind energy expansion.

Providus

Providus, a Latvian think tank, emphasised the importance of active community participation in wind energy projects in order to ensure that planned activities are aligned with the needs and priorities of local communities, and to increase public trust in decision-making procedures. The mistrust of citizens to public authorities is a substantial issue in Latvia. According to a survey conducted in 2021 by the Organisation for Economic Co-operation and Development (OECD), only 24.5% of the citizens trusted the government and not more than 26% of them believed that their views are taken into account during consultation procedures. Reasons for the public's low trust in public authorities include the inappropriate time and ineffective management of the consultation process, and the limited technical scope of the discussions.

To this end, early public engagement in the consultation process was underscored as crucial to enhancing the public's trust to the public authorities and their decisions regarding wind farm siting and operation. Additionally, using a broader range of engagement methods, such as focus groups and deliberative forums, and collaborating closely with citizen councils was deemed as beneficial. These approaches help increase citizen involvement in the consultation process and ensure that local communities' concerns are heard and addressed.

Green Liberty

Green Liberty highlighted the importance of the public's participation in the ongoing nation-wide public consultation processes on the development of a regulatory framework for the establishment and operation of energy communities and mandatory compensation schemes for local communities around operating and under development wind farms.

Energy communities, including those focused on wind energy, offer several benefits to local residents, including reduced energy prices and additional revenue streams for participants in cooperative schemes. However, regulatory framework for wind energy development in Latvia remains somewhat ambiguous, particularly regarding the complexity of licensing processes, with limited financing schemes, and overlapping, sometimes even contradictory, regulations for land use and spatial planning. These regulatory challenges contribute to public scepticism regarding wind energy developments. As a result, citizens often hesitate to join or form energy communities due to a lack of awareness about available financing models and the applicable regulations.

Moreover, citizens tend to also be sceptic regarding the mandatory compensation schemes which are also under consultation. While these schemes provide a fixed revenue stream for

the community, there is a risk that the funds could be redirected by regional authorities to other community needs, rather than addressing the wind farm's environmental and landscape impacts.

2.2.3 Lessons Learnt

Public engagement in EIAs

The evaluation procedures of planned wind energy projects could be substantially improved by collaborating with specialised research institutions and conducting EIAs based on scientific data and methodologies. Civil society should be informed about the input data as well as the results of the assessments in an understandable and comprehensive way. Moreover, the standardisation and digitalisation of the relevant procedures would improve the robustness and the effectiveness of the EIAs. In this context, all required information, including biodiversity and spatial data, should be available on an appropriate online platform to ensure transparency, continuity and accessibility for citizens, administrative authorities, environmental experts, academics and wind energy developers and operators.

Availability of information

The lack of information about wind energy projects and their potential impacts is a significant barrier to public acceptance and the expansion of wind energy. To address this, it is crucial to provide civil society with all necessary information before EIA procedures and the organisation of relevant consultation processes. Local communities should be given adequate time to review all relevant background information and formulate their opinions and input for the consultation. Increasing transparency and facilitating the overall process can be achieved by gathering this information on an online informative platform, which could be integrated into existing municipality websites. In this context, the consultation mechanism developed by the Wind4Bio project can serve as an appropriate model for such applications, enhancing public engagement in the consultation process, and trust in wind energy projects.

Capacity building of civil servants

To improve the capacity of employees in administrative entities, including municipalities, to engage citizens in wind energy planning, it is essential to provide domain-specific workshops and informative seminars. Additionally, increasing financial and human resources will enable municipalities to hire experts who can design and implement public consultation processes and public dialogue procedures. This approach will allow regional and local administrative units to evaluate and monitor wind energy projects comprehensively and based on scientific

evidence. Furthermore, it will enhance their capacity to design and develop compensation schemes that benefit local communities, landowners, and the municipalities themselves.

Enhanced awareness raising and early involvement

Awareness raising and outreach activities are key to successful wind energy development. For example, wind energy developers could publish periodic newsletters to inform civil society regarding the progress of particular wind energy projects and their impacts throughout their life cycle. Such an approach would mitigate local community's concerns and potential social opposition. Additionally, the active engagement of local communities in public dialogues could allow administrative authorities and wind energy developers to improve their knowledge and understanding regarding the natural and cultural heritage, and the societal values of the areas where wind energy projects are planned or in operation.

Effective compensation schemes

Currently, there are two main approaches for designing compensation mechanisms for wind energy developments: one based on nominal installed power and the other on actual electricity generation. The latter involves wind farm operators sharing a portion of their income from energy production with local communities. However, the former, which calculates payments to local communities based on installed wind energy capacity, is considered optimal since the cumulative impacts on landscape of wind energy projects are primarily associated with construction and installation rather than operation. Finally, providing electricity at constant and low prices to residents of communities or municipalities where wind parks are developed is another common compensation mechanism.

2.3 Thematic Workshop in Poland

The workshop took place on Thursday 17/10/2024 and was hosted by WiseEuropa in partnership with the Student Scientific Energy Club, at the Warsaw School of Economics (Szkoła Główna Handlowa, sala G322).

2.3.1 Participants

There were 15 attendees in total, with 12 representatives from public authorities (City of Warsaw offices and the Institute of Environmental Protection) and 3 representatives from key NGOs.

2.3.2 Presentations

The Polish workshop had a more interactive character, where participants were invited to form smaller discussion groups, and exchange ideas and perspectives on topics pertaining to facilitating the dialogue between public authorities and civil society for improved biodiversity protection in wind farms, and the design and implementation of consultation processes for wind energy developments.

An important aspect of the consultation mechanism discussed was its timing of implementation within a wind project's life cycle. Participants highlighted the importance of **initiating the consultation process as early as possible**, preferably in the (pre)planning phase, involving civil society in key decisions, such as site location and site rehabilitation plans. Experience has shown that delaying the public consultation and shifting the process towards the final stages of the wind farm's construction or even operation, results in increased public opposition. Local communities in particular, feel sidelined from the decision-making process and tend to develop a negative attitude towards wind energy, enhancing the establishment of a NIMBY attitude. If, however, local communities and the wider public are invited to express their preferences and concerns in the early stages of the planning phase, experience has shown it creates a feeling of involvement in the decision-making process and enhances social acceptance of wind energy developments.

To which end, the need for developing a permanent consultation mechanism was emphasised. Such a mechanism goes beyond regulatory mandates for a consultation process during the planning phase of a wind farm. It acts as a permanent channel of communication and interaction among local communities, public authorities, and wind farm operators. Having citizens' concerns heard and addressed fosters a relationship of trust with the wind farm developer and regional public authorities which in turn helps mitigate social opposition to wind energy projects. Through the consultation mechanism, local communities will have the opportunity to stay engaged during the various stages of the project, maintaining a two-way communication with public authorities and the wind farm operator until the project's end of life.

In addition to early involvement of the public in the consultation, **effectively addressing misinformation** about wind energy and the adverse impacts of wind turbines to the landscape and the environment was also discussed as important to overcoming resistance to wind projects. Public authorities along with project developers should focus on disseminating information through channels used by the public as well as organising open meetings with

relevant stakeholders and engaging into fact–based discussions. **Transparent communication** when presenting a wind energy project to the public, balancing the discussion between advantages and drawbacks of wind farms, was considered a prominent approach to gain acceptance of local communities. Moreover, communication through various channels available to the public (i.e. social media, churches, community organisations) was pointed out as beneficial for public engagement and addressing opposition of civil society to wind energy projects, especially if showcasing examples of successful implementation of wind energy projects and their benefits for the local community.

In addition, **employing "environmental negotiators"** to bridge the communication gap between developers, local communities and public authorities was pointed out as an effective strategy to improve communication and reduce negative predisposition towards wind energy projects. Experience from successful wind energy projects has highlighted the beneficial role of civil society organisations (CSOs) in building bridges between local communities, public authorities, energy companies, and wind farm developers. CSOs can act as mediators in discussions and communication among key actors in the establishment and operation of wind farms, helping to mitigate social resistance and enhance public trust in wind energy projects. The **"wind turbine trend"** was suggested further, as a potential long-term communication strategy although the challenge of changing deeply rooted public misconceptions and negative stance regarding wind energy was acknowledged.

Discussing **common key drivers of social opposition** to wind energy developments, participants referred to the need for wind farm developers and operators to effectively identify and mitigate the environmental impact of wind farms. Studies have shown that ill-placed and ill-planned wind farms and associated infrastructure can disrupt natural habitats, potentially displacing or harming local wildlife populations. Additionally, the presence of turbines may lead to bird and bat collisions, particularly in areas where migratory routes intersect with wind corridors, potentially impacting vulnerable species. It was stressed that in identifying and mitigating potential environmental impacts of wind farms on local habitats and ecosystems, **close collaboration between the various actors** involved in wind energy developments, including the wind farm operator, local public authorities, civil society, and local wildlife and environmental groups can lead to informed mitigation actions tailored to the needs and risks faced by local ecosystems and wildlife habitats. Local communities and environmental organisations often have extensive knowledge of local ecosystems, and integrating their input with expert knowledge can facilitate the design of effective actions for the preservation of

crucial biodiversity hotspots and ecologically sensitive areas. Furthermore, employing modern technologies for monitoring and minimising the adverse impacts of wind farms on the local environment was discussed. Tools such as GPS trackers, radars, and sonars can provide wind farm operators with valuable information about changes in local wildlife, which in turn can support the design and implementation of targeted environmental protection actions.

Finally, discussions touched upon the **scope of impact assessments**. The mandatory impact assessment during the planning stage was considered as having a limited scope, focusing solely on environmental aspects. It was suggested that social and financial impacts, such as the shadowing effect, job losses, and implications for tourism, should also be assessed. Participants highlighted the need for a wind energy project to address local social needs and community priorities. Wind farm developers and operators should plan and implement educational and outreach activities as part of their broader operational strategy. Infrastructure improvements (e.g., upgrading roads, schools, hospitals), community events, and social responsibility actions (e.g., blood donation drives, sponsored medical exams) for local residents can also significantly enhance a positive attitude toward wind energy projects.

2.3.3 Lessons Learnt

Extended scope of the consultation

The consultation itself should not only address the adverse environmental impacts of wind farms to the areas surrounding the development. The social and economic impacts of the wind farm to the community needs and customs should also be considered. To this end, it is recommended that the online platform designed to host the consultation should integrate a dedicated area for participants to discuss the views and concerns regarding the impact of a planned wind energy project to the landscape, local economy, and social activities. This additional input from the public, can enhance public authorities' capacity to a) design targeted awareness raising campaigns to address the public's concerns, b) better navigate the complexities of spatial planning for wind energy developments.

Ease of access to information

It is important that citizens and interested parties are able to easily locate and access essential information needed to fruitfully engage in the consultation process. To which end, it is recommended that key documents related to a) existing and planned wind energy projects, and b) areas under assessment for their suitability to be designated as wind areas, should be uploaded to the same website or digital platform hosting the consultation. Such documents

include the EIAs of existing and planned wind farms, biodiversity and ecosystem studies, and local spatial plans.

Diverse communication approaches

Public authorities should tailor their communication strategies to align with the needs and social characteristics of the local communities where wind energy developments are planned or currently in operation. In many rural communities, traditional media (e.g., printed newspapers), local churches, and other trusted community organisations play a pivotal role in disseminating information. Leveraging these channels can help public authorities ensure that the message reaches a broad audience. Employing environmental negotiators and liaison points, is also an effective communication approach, since these intermediary contact persons between developers, public authorities, and local communities ensure the balanced presentation of a wind project, highlighting the advantages and addressing the disadvantages.

Corporate social responsibility actions

Social responsibility initiatives, especially targeting younger generations and vulnerable groups, have been recognised as vital in fostering trust and building tight bonds of the wind farm with the local community. Collaboration of wind farm operators with local youth organisations and educational institutions is highly encouraged, and outreach actions should emphasise the benefits of wind energy and the wind farm's strategy for the protection of wildlife and the conservation of the local ecosystem. Additionally, organising study visits to neighbouring municipalities that have successfully implemented wind energy projects can provide tangible examples of the benefits of wind energy developments, helping to alleviate concerns among sceptical residents.

3. Comparative Analysis & Lessons Learnt

3.1 Comparative Analysis

This section provides a summative assessment of all three workshops conducted, deriving from all key topics discussed during the regional meetings hosted in Greece, Latvia, and Poland.

Provision of information

Participants, in all workshops, emphasised the importance of providing accurate, understandable, and easily accessible information. Major drivers of opposition to the consultation process itself and the advancement of wind energy projects in general include the dissemination of misleading information and the ambiguity of the regulatory framework for wind farm construction and operation. These factors enhance the reinforcement of mistrust towards public authorities and create doubts about the benefits of wind energy, further inhibiting the dialogue among primary stakeholders of wind energy (i.e., public authorities, local communities, wind farm operators). The lack of public awareness also limits local community participation in consultation processes and contributes to the formation of a negative opinion about wind farms.

Early involvement

Discussions in all three workshops underscored the importance of early involvement of citizens and local community representatives in the decision-making process. Early engagement alleviates concerns about transparency, helps dispel misinformation about the impacts of wind farms on the landscape and the environment, and allows developers to understand community expectations and tailor their community engagement approach and actions accordingly.

Diversified communication strategies

Participants recognised the need for diversified communication strategies to effectively reach a wider audience. The use of various communication channels (digital and traditional) helps target different age groups, while diverse outreach activities allow to engage the audience more effectively. In addition, appointing a dedicated team of experts acting as intermediaries can address citizens' skepticism and increase their engagement with local wind energy developments. These experts can provide clear and accurate information, and facilitate meaningful dialogue between the community and project developers.

Financial incentives

The Latvian workshop highlighted the importance of financial incentives as a means of mitigating opposition to wind energy development. Mandatory compensation schemes for neighbouring municipalities or individual residents in areas surrounding wind farms can provide a fixed revenue stream for the community, helping to balance the negative impacts of wind farm operations on tourism and the job market.

3.2 Lessons Learnt

Public involvement beyond EIAs

Public involvement should extend beyond the EIAs to include all stages of the wind energy project lifecycle. Civil society, particularly local communities of areas surrounding wind farm areas, should be engaged during the planning, construction, operation, and decommissioning of wind farms. By involving citizens in ongoing monitoring and decision-making processes, public authorities can ensure that community concerns are continuously addressed, fostering a sense of ownership and long-term support for local wind energy projects.

Points of contact to build trust

Establishing points of contact is essential for building trust between citizens and public authorities. For example, regional public authorities could appoint dedicated community liaison officers who will be responsible for maintaining open lines of communication with residents and local groups of areas neighbouring wind farms. These officers should be available to answer questions, provide updates, and address concerns promptly. In addition, regular public meetings and information days can offer opportunities for direct interaction, helping to build and maintain trust of citizens to public authorities.

Enhanced outreach activities

Enhanced outreach activities need to support the consultation processes of public authorities in order to engage a diverse audience. Using a mix of traditional and digital communication methods public authorities will be able to reach different demographic groups. Activities such as community workshops, information booths at local events, social media campaigns, and serious games can help disseminate information effectively. Additionally, organising site visits to successful wind farms which have gained public acceptance can provide first-hand experience of the benefits of wind energy projects to the local community.

Balanced representation of information

Providing balanced and comprehensive information is key to informed public participation in the consultation process. Authorities should pay attention presenting both the benefits and potential drawbacks of wind energy projects in a transparent manner. It is important that information is clear, accessible, and tailored to the needs of the community. Using visual aids, infographics, and simplified language summaries can help make complex information more understandable to the wider public.

4. Recommendations

The last chapter provides concise recommendations a) for Wind4Bio partners to jointly develop the consultation mechanism, focusing on technical aspects, optimised functionality, and strategies to ensure its long-term sustainability, and b) for public authorities to enhance cooperation with civil society to mitigate the impact of wind farms on biodiversity and to increase public engagement and transparency.

4.1 Permanent Online Consultation Mechanism

The recommendations presented aim to provide Wind4Bio partners with additional modifications to the online consultation platform which will be developed during the project's lifetime. Partners can integrate the recommended elements in the future, and their implementation is outside the scope of the Wind4Bio project.

Integration of maps with territorial features

The online consultation platform should feature regularly updated maps of areas where wind energy projects are in operation or areas designated as eligible for such investments. These maps should integrate territorial-specific features, including biodiversity hotspots, nature-protected areas (NATURA 2000 and Special Protection Areas), migratory pathways, cultural sites, power infrastructure, and existing renewable energy installations.

Supporting documentation for wind farms areas

It is recommended that key documents related to both existing and planned wind energy projects, as well as areas under assessment for their suitability as wind areas, are uploaded to the same website or digital platform hosting the consultation. These documents should include EIAs of existing and planned wind farms, biodiversity and ecosystem studies, local spatial plans, and key documents of the regional and national framework regulating wind energy development in the respective country. The platform administrators should regularly verify the relevance of these documents and update them as new information or amendments become available.

Frequently Asked Questions section

The online platform hosting the consultation process should include a Frequently Asked Questions (FAQ) section. This section should provide information about the rules of consultation, such as how to post online and comment, and terms and penalties for

inappropriate use. Additionally, it should outline the technical requirements for optimal platform performance, including operational system, RAM, and GPU requirements.

Wind4Bio helpdesk

In case of difficulties using the platform or inappropriate use, users should be able to contact the platform's administrator. It is recommended that each Wind4Bio country assign a support team or person, allowing users to contact administrators in their native language, ensuring timely and effective assistance.

4.2 Cooperation between public authorities and civil society

The recommendations presented aim to provide Wind4Bio partners with a toolbox of actions to be implemented both during and beyond the duration of the project, aiming to improve communication and collaboration between public authorities and civil society on issues related to biodiversity protection in wind energy areas.

Targeted communication campaigns

Public authorities should deploy targeted communication campaigns to bridge the gap between themselves and civil society. These campaigns should aim to raise awareness about the importance of wind energy projects while addressing concerns related to biodiversity. By providing clear, concise, and accurate information about the benefits and potential impacts of wind farms, these campaigns can help build trust and foster a collaborative environment. The campaigns should also highlight the ways in which the public can participate in the consultation process, ensuring that their voices are heard and considered in decision-making.

Joint utilisation of digital and traditional communication methods

To enhance cooperation with civil society, public authorities should adopt a dual approach by leveraging both digital and traditional communication methods. Digital platforms, such as social media, websites, and online forums, can be used to quickly disseminate information and engage with a broader audience. Traditional methods, such as community meetings, printed materials, and local radio broadcasts, should complement digital efforts to reach individuals who may not have easy access to the internet. This combined approach ensures inclusivity, increasing transparency and public engagement.

Training seminars for civil servants

To effectively engage with civil society and address biodiversity concerns related to wind farms, public authorities should invest in upskilling and training seminars for civil servants.

These seminars should focus on enhancing the knowledge and skills of civil servants in areas such as environmental regulations, community engagement strategies, and conflict resolution. By equipping civil servants with the necessary expertise, they can better facilitate discussions between wind farm developers and the public, ensuring that citizens' concerns are adequately addressed. Additionally, well-trained civil servants can help build trust with the community, demonstrating a commitment to transparency and effective governance.

Collaborations for outreach activities

Public authorities are encouraged to collaborate with wind farm operators and educational institutions to organise a variety of educational and outreach activities. These activities should include field visits to areas around wind farms to demonstrate the biodiversity protection measures that have been implemented, showcasing how these wind energy projects can coexist with local ecosystems. Additionally, technical visits for students in polytechnic and engineering faculties should be organised to provide hands-on learning experiences about the operational aspects of wind turbines and biodiversity monitoring systems.