Interreg Europe

Co-funded by the European Union

BIOWIND

GOOD PRACTICE REPORT

Activity (A.1.3): Evaluation of cases exchanged by partners and development of an operational guide

DECEMBER 2023

Developed by

FAEN
Fundación Asturiana de la Energía

Executive summary

This report documents the findings of the survey conducted within the context of BIOWIND Activity A1.3, titled “Exchange of practices on improving social acceptance for wind, aligned with biodiversity conservation requirements”. The survey engaged project partners identifying good policy practices that facilitate consensus and social acceptance in wind farm projects. The report aims to provide a thorough analysis of the survey results and evaluate the a) effectiveness of the identified good policy practices in enhancing social acceptance, b) their impact on the wind farm’s viability and c) their transferability rate and potential based on partners’ appraisal. The ultimate goal is to offer an operational guide on how to integrate, adapt and build upon these good practices to enhance social acceptance and consensus for wind farm projects at the regional level.

To that end, the document includes:

- Section 1 presents (a) the aim and scope of BIOWIND Activity A1.3 and (b) a summary of the key findings of the report.
- Section 2 provides a summary of the methodological framework utilised for the data collection, including the survey design, research objectives, criteria, and Key Performance Indicators (KPIs).
- Section 3 offers an analysis of the data collection, including response rates and data quality. It also presents a comprehensive overview of the findings, highlighting general statistics from the data collection and compiling a thorough list of the identified good practices.
- Section 4 reviews and evaluates the good practices identified by project partners, following the evaluation criteria included in D1.3.1.
- Section 5 presents and discusses the key findings of the survey.
- Section 6 offers recommendations for the policy integration of the most effective practices to the specific requirements of each area.

List of Abbreviations

BE	Belgium
CARM	Autonomous Community in the Region of Murcia, General Directorate of the Natural Environment
CDDA	Central Danube Development Agency Nonprofit Ltd.
CSO	Civil Society Organisation
e.g.	exampli gratia (for example)
EIA	Environmental Impact Assessment
ERDF	European Regional Development Fund
ES	Spain
EU	European Union
FAEN	Asturias Energy Foundation
FI	Finland
GR	Greece
HU	Hungary
i.e.	id est (that is)
ICIO	Tax on Constructions, Installations and Works (Spain)
IE	Ireland
KIELCE	Marshal Office of Świętokrzyskie Voivodeship
KPI	Key Performance Indicator
kW	Kilowatt
LV	Latvia
MW	Megawatt
NGO	Non-Governmental Organisation

NWRA	Northern and Western Regional Assembly
PL	Poland
PLN	Polish złoty
PROMEA	The Hellenic Society for the Promotion of Research and Development Methodologies
PFB	Province of Flemish Brabant
RCSO	Regional Council of South Ostrobothnia
RES	Renewable Energy Sources
RSES	Regional Spatial and Economic Strategy
RWG	Region of Western Greece
THL	Finnish Institute for Health and Welfare
UPAT	University of Patras
VLAREM	Flemish Regulations concerning the environmental permits
ZPR	Zemgale Planning Region

Table of Contents

1. Introduction

By 2027, wind energy is expected to become the leading power generation source in the EU, playing a vital role in fulfilling the EU's renewable energy goals. Compared to other renewable sources, wind energy stands out due to its sustainability, scalability, job creation potential, and lower operational costs. To scale up the deployment of wind farms, it is essential to effectively communicate these benefits to local communities, businesses, and the economy, and to provide clear, accessible information and dispel misconceptions. Additionally, identifying and implementing best practices that foster social acceptance and consensus for wind farm projects are key for effectively addressing public concerns and reservations.

1.1. The BIOWIND project

The BIOWIND project, funded by the Interreg Europe programme, addresses key challenges impeding wind energy growth. The project's core objective is to develop an integrated wind planning approach, addressing local opposition and complex permitting processes linked to biodiversity and social cohesion concerns. It focuses on enhancing social acceptance, securing sustainable wind energy development, and promoting collaboration between the wind energy sector and biodiversity policies. Additionally, BIOWIND aims to promote the convergence of wind energy and biodiversity policies and the enhancement of public participation, by facilitating the establishment of dialogue mechanisms with civil society and the introduction of financial participation and benefit sharing schemes. The project aims to empower public administrations in implementing environmentally sustainable and socially inclusive wind energy policies, and to facilitate awareness and consensus among civil society, environmental agencies, and wind energy stakeholders in the targeted regions. The BIOWIND project's consortium consists of 11 partners from 8 European countries, collaborating through joint policy learning and exchanges of experiences. The following figure (**Figure 1**) presents the consortium members involved in the implementation of the project.

Figure 1 *BIOWIND project partners*

Country		Project Partners	Acronym
	PP1 (LP)	Region of Western Greece	RWG
	PP2	Regional Council of South Ostrobothnia	RSCO
	PP3	Zemgale Planning Region	ZPR
	PP4	Northern and Western Regional Assembly	NWRA
	PP5	University of Patras	UPAT
	PP6	Province of Flemish Brabant	PFB
	PP7	Central Danube Development Agency Nonprofit Ltd.	CDDA
	PP8	Marshal Office of Świętokrzyskie Voivodeship	KIELCE
	PP9	Autonomous Community of the Region of Murcia - General Directorate of the Natural Environment	CARM
	PP10	Asturias Energy Foundation	FAEN
	AP11	The Hellenic Society for the Promotion of Research and Development Methodologies	PROMEA

1.2. Activity A1.3

The objective of this Activity is to identify effective practices of enhanced social acceptance in wind farm projects and to facilitate a knowledge exchange among partners. For the effective implementation of the Activity two outputs will be produced by FAEN. The first, already completed, involved developing specific criteria and shared tools for partners to identify and assess effective policy practices that promote social acceptance and consensus in wind energy projects. The second output, the current report, aims to evaluate the practices shared by partners and create a practical guide for adapting and implementing these practices at the local level.

1.3. Key takeaways

The survey was conducted from September to October 2023. The key takeaways are presented below:

- Spain, Poland, and Finland stand out with more than three identified good practices. Spain's prominent role in Europe's wind energy sector, ranking second after Germany in terms of installed wind power capacity, is a key factor in the identification of numerous best practices within the country.
- While most identified good practices pertain to onshore wind farms, their applicability extends to offshore settings, allowing for versatile adaptation.
- Belgium, Finland, Poland, and Spain have provided highly effective practices in terms of social acceptance, impact on the viability of wind farms, and potential for transferability.
- The most prominent and highly scored types of good practices identified by BIOWIND partners pertain to a) participatory models in planning and permitting procedures – combined with communication and awareness-raising strategies; b) practices involving compensation schemes and promoting fair distribution of benefits (e.g., energy communities); c) policies and measures promoting increased biodiversity protection.
- Each region is encouraged to tailor specific good practices to their unique challenges. This includes involving residents in consultations, revising land use plans, promoting local employment, and employing advanced biodiversity protection technologies. The objective is to harmonize wind energy development with environmental conservation, economic progression, and community participation, thereby enhancing social acceptance and fostering consensus for wind farm initiatives.

2. Survey design and methodology

To identify and collect good practices that contribute to the improvement of wind farm social acceptance in wind energy projects, a survey was carried out by project partners in their respective territories. The survey followed both a quantitative and qualitative research approach that aimed to gain a comprehensive understanding of good practices which have been adopted so far in existing wind farm projects. It was implemented through one questionnaire, hosted on the EU surveys platform. As part of the qualitative survey partners were also requested to evaluate the effectiveness and transferability of the identified good practices.

2.1. Methodology

To guide and assist partners' data collection efforts, FAEN developed a methodological framework to assist partners in the identification of good practices for social acceptance and consensus building. To this end the methodology document included:

- A thematic background on the importance of wind energy as well as potential challenges related to onshore and offshore wind farms that can function as drivers of social opposition to the deployment of wind energy farms, including examples and cases studies of civil opposition in BIOWIND territories.
- Examples and case studies of measures and initiatives undertaken to address public concerns.
- Detailed guidelines for the data collection and analysis, including Key Performance Indicators (KPIs), the activity's timeline, criteria for the evaluation of the survey findings and sources to facilitate partners' research.

The survey tool was designed in a clear and structured way so as to simplify the collection of the required data and ensure that all information was documented in a consistent and efficient

manner. The questionnaire was addressed to all project partners and was made available online to be completed via the EU surveys platform (**Annex I**: Questionnaire (data collection tool)):

- QUESTIONNAIRE: Identification of good practices for increased social acceptance in the BIOWIND territories
  https://ec.europa.eu/eusurvey/runner/BIOWIND_good_practice_survey

2.2. Survey objectives & scope

The survey had two objectives:

1. The identification of good practices that promote enhanced social acceptance in wind energy projects, which have already been implemented in one or all phases of the wind farm's lifecycle within the BIOWIND territories.
2. The evaluation (impact assessment) of the identified good practices with regards to a) their effectiveness in increasing social acceptance for wind energy projects, b) their impact on the overall viability of the wind farm project, c) their transferability potential, namely their potential for being replicated or adapted to other contexts, and d) their transferability rate, namely how widespread the good practice is.

Regarding the second objective, partners were asked to evaluate the identified good practices (on a basis of 1 to 5 for each question/criterion) taking into consideration any available quantitative data they could draw on. In cases where quantitative data was not available, partners were advised to rely on their judgment for the assessment.

2.3. Key Performance Indicators (KPIs)

A minimum target of three (3) good practices in each BIOWIND territory was set for the data collection. The following table (**Table 1**) presents the KPIs reached by each partner:

Table 1 *KPIs achieved by project partners*

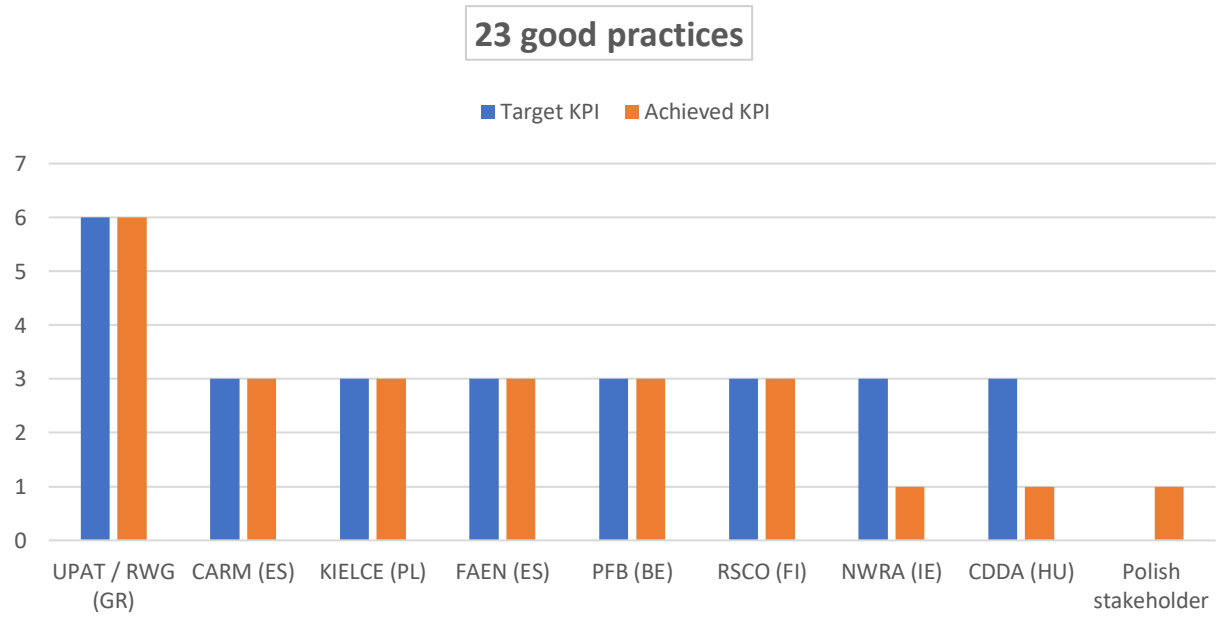
Partner	KPIs achieved
CARM (ES)	3
CDDA (HU)	1
KIELCE (PL)	3
NWRA (IE)	1
FAEN (ES)	3
PFB (BE)	3
RSCO (FI)	3
UPAT / RWG (GR)	6
Polish stakeholder	1

3. Survey data and results

3.1. Overview of the data collection

Overall, the partners contributed actively to the data collection and demonstrated a high level of commitment in achieving the targets set in the Methodology. Of the total ten (10) project partners who were required to participate in the survey, nine (9) of them provided cases of good practices from their territory, with Zemgale Planning Region (ZPR) not providing any input. From them, eight (8) met the goal of documenting at least three good practices. Input was also provided by an external stakeholder from Poland documenting one good practice applied within their territory. Two (2) partners (CDDA and NWRA) were not able to reach the KPI of three responses, likely due to a scarcity of reportable cases (**Figure 2**).

Figure 2 ***Target vs Achieved KPIs***



It is important to note that in Greece, where two partners (UPAT and RWG) are located in the same region and address the same policy instrument, the cases provided were documented jointly. In addition, UPAT, as an organisation with broader research capabilities, carried out

further research and identified three additional good practices located in other countries (one [1] in Poland, one [1] in Finland, and one [1] in Latvia/Estonia) that could potentially be relevant or transferable to their region.

As a result, the analysis and presentation of the collected practices takes place on a country-by-country basis rather than at the project partner level, since the KPIs achieved by each partner does not exactly correspond to the good practices identified for each country. Despite these issues, the overall quality and quantity of data collected were not compromised, as partners' responses covered all countries participating in the project recording at least one good practice in each country. A total of 23 practices were identified and reported by the partners providing illustrative and practical examples that have proven to be successful.

Upon reviewing the responses submitted by partners, no invalid data were identified. Nevertheless, some data modifications took place, addressing minor errors or inconsistencies found in the submissions. In particular, any inconsistencies or missing information were readily inferred from the qualitative data provided (e.g., the accompanying short descriptions and website references). In addition, some of the titles and descriptions of the identified good practices have been modified to enhance clarity.

3.2. Overall findings

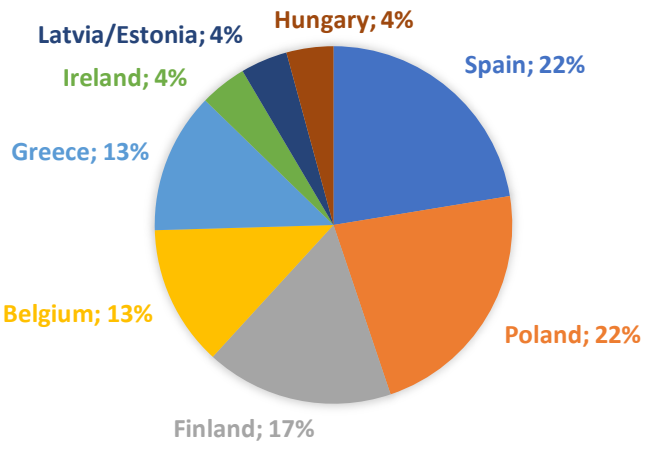
This section provides key statistics derived from the data collection. These include the geographical distribution of the identified good practices, the classification of wind farms (onshore or offshore) associated with these practices, their categorisation into different types, their distribution across different stages of the wind farm's lifecycle, and the types of organisations implementing them. The data is elucidated with tables and charts, indicating the exact numbers as well as the percentages corresponding to the responses.

3.2.1 Geographical distribution of identified good practices

Out of the 23 identified practices, five (5) good practices were identified in Spain, five (5) in Poland, four (4) in Finland, three (3) in Greece and Belgium and one (1) practice within Ireland, Hungary and Latvia. The practice identified in Latvia is also relevant to Estonia as it pertains to a cross-border offshore wind project between these two countries. Moreover, one of the identified practices in Greece has been also adopted in offshore wind farms located in Italy (Table 2). Spain's prominence as a leader in Europe's wind energy sector, being second only to Germany in installed wind power capacity, is a key factor in the identification of numerous best practices within the country.

Table 2 *Geographical distribution of identified good practices*

Country	Good Practices
Spain	5
Poland	5
Finland	4
Belgium	3
Greece	3
Ireland	1
Latvia/Estonia	1
Hungary	1

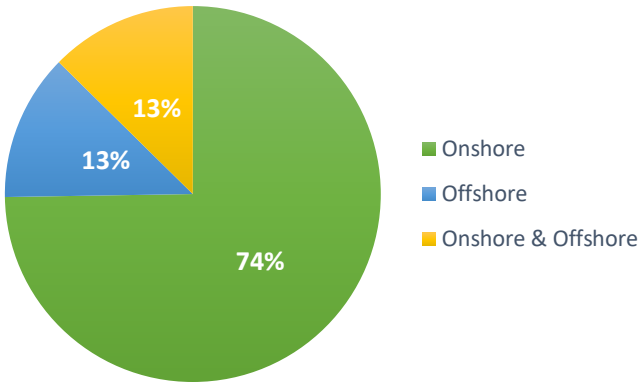


3.2.2 Good practices in onshore and offshore wind farms

Drawing on partners' responses, 17 good practices referred to onshore wind farms, three (3) to offshore wind farms while three (3) had potential applications in both onshore and offshore wind farms (**Table 3**). It should be noted that while the majority of good practices (17 out of 23) relate to onshore wind farms, most of them are also applicable to offshore settings.

Table 3 *Good practices in onshore and offshore wind farms*

Location of the wind farm	Good Practices
Onshore	17
Offshore	3
Onshore & Offshore	3

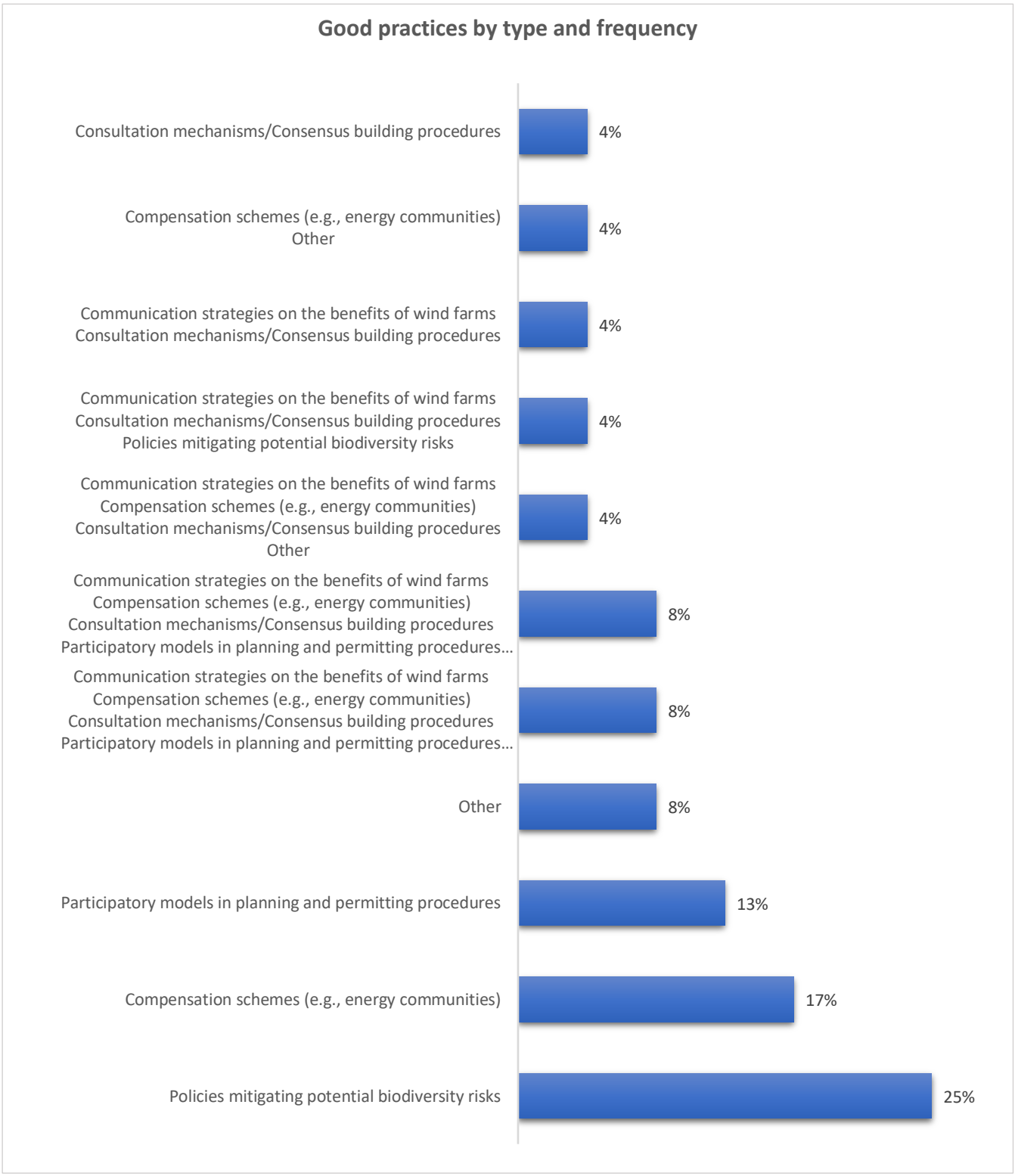


3.2.3 Good practices by type and frequency

Based on their type and nature, six (6) of the identified practices pertained to 'Policies aimed at mitigating potential biodiversity risks', three (3) practices related to 'Compensation schemes', three (3) related to 'Participatory models in planning and permitting procedures', one (1) was categorised as a 'Consultation mechanism/consensus building procedure' and two (2) referred to practices that did not fall into any of the given categories in the survey questionnaire ('Other'). The remaining eight (8) good practices were identified as combinations of different types (**Table 4**). No practice was exclusively categorised under the label 'Communication strategies on the benefits of wind farms'.

Table 4 *Good practices by type and frequency*

Good Practice Type		Frequency
Policies mitigating potential biodiversity risks		6
Compensation schemes (e.g., energy communities)		3
Participatory models in planning and permitting procedures		3
Consultation mechanisms/Consensus building procedures		1
Other		2
Combinations	▪ Communication strategies on the benefits of wind farms ▪ Compensation schemes (e.g., energy communities) ▪ Consultation mechanisms/Consensus building procedures ▪ Participatory models in planning and permitting procedures ▪ Policies mitigating potential biodiversity risks	2
	▪ Communication strategies on the benefits of wind farms ▪ Compensation schemes (e.g., energy communities) ▪ Consultation mechanisms/Consensus building procedures ▪ Participatory models in planning and permitting procedures ▪ Other	2
	▪ Communication strategies on the benefits of wind farms ▪ Compensation schemes (e.g., energy communities) ▪ Consultation mechanisms/Consensus building procedures ▪ Other	1
	▪ Communication strategies on the benefits of wind farms ▪ Consultation mechanisms/Consensus building procedures ▪ Policies mitigating potential biodiversity risks	1
	▪ Communication strategies on the benefits of wind farms ▪ Consultation mechanisms/Consensus building procedures	1
	▪ Compensation schemes (e.g., energy communities) ▪ Other	1

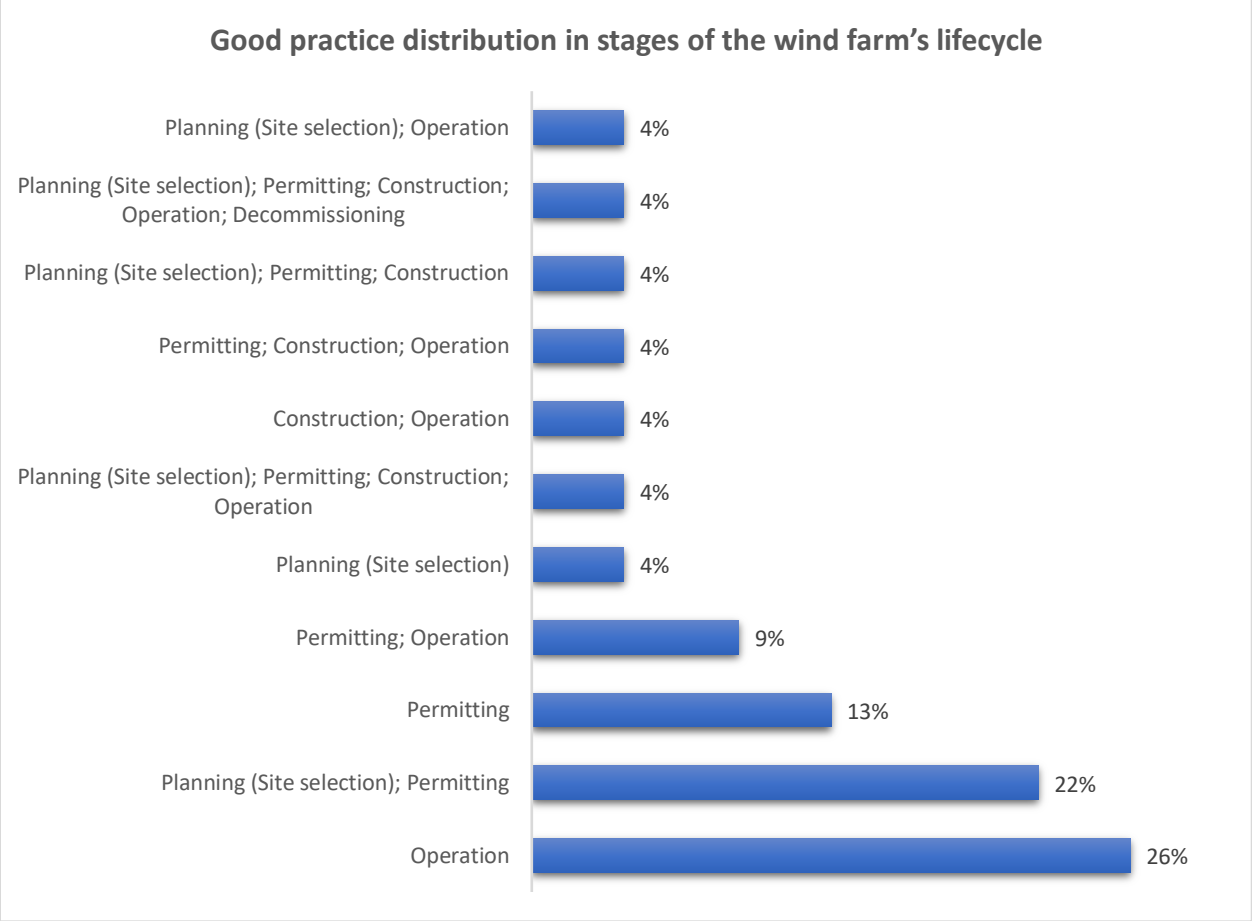

Good practices by type and frequency
Consultation mechanisms/Consensus building procedures
4%
Compensation schemes (e.g., energy communities)
Other
4%
Communication strategies on the benefits of wind farms
Consultation mechanisms/Consensus building procedures
4%
Communication strategies on the benefits of wind farms
Consultation mechanisms/Consensus building procedures
Policies mitigating potential biodiversity risks
4%
Communication strategies on the benefits of wind farms
Compensation schemes (e.g., energy communities)
Consultation mechanisms/Consensus building procedures
Other
4%
Communication strategies on the benefits of wind farms
Compensation schemes (e.g., energy communities)
Consultation mechanisms/Consensus building procedures
Participatory models in planning and permitting procedures...
8%
Communication strategies on the benefits of wind farms
Compensation schemes (e.g., energy communities)
Consultation mechanisms/Consensus building procedures
Participatory models in planning and permitting procedures...
8%
Other
8%
Participatory models in planning and permitting procedures
13%
Compensation schemes (e.g., energy communities)
17%
Policies mitigating potential biodiversity risks
25%

3.2.4 Good practice distribution in stages of the wind farm's lifecycle

As to the stage of the wind farm's lifecycle, six (6) good practices have been employed during the operation phase, three (3) during the permitting phase, and one (1) during the planning/ site selection phase. The remaining 14 good practices have been identified as applying to more than one phases: six (6) during both planning and permitting; two (2) during permitting and operation; one (1) during planning, permitting, construction and operation; one (1) during construction and operation; one (1) during permitting, construction and operation; one (1) during planning, permitting and construction; one (1) during planning and operation; and one (1) across all phases (planning, permitting, construction, operation and decommissioning) (**Table 5**). Overall, the operation and permitting stages seem to be the most salient stages where most good practices apply to, possible indicating the phases where the most significant challenges lie in.

Table 5 *Good practice distribution in stages of the wind farm's lifecycle*

Wind farm stage		Good Practices
Operation		6
Permitting		3
Planning (Site selection)		1
Combinations	Planning (Site selection); Permitting	5
	Permitting; Operation	2
	Planning (Site selection); Permitting; Construction; Operation	1
	Construction; Operation	1
	Permitting; Construction; Operation	1
	Planning (Site selection); Permitting; Construction	1
	Planning (Site selection); Permitting; Construction; Operation; Decommissioning	1
	Planning (Site selection); Operation	1



3.2.5 Categorisation of good practices according to implementing entity

In terms of implementing entities, seven (7) practices were led by local, regional, or national authorities; seven (6) by companies or private initiatives; and one (1) by an NGO or nonprofit organization. Some practices involved multiple categories of implementers. In four (4) practices implementers were reported as a combination of company/private initiatives with local/regional/national authorities whereas three (3) practice involved a combination of company/private initiatives and another entity that was not categorised. In addition, one (1) was as a joint effort between company/private initiatives, local/regional/national authorities and grassroots/community initiatives and one (1) involved a company/private initiatives, local/regional/national authorities and another entity that was not categorized. Lastly, no good practice was solely implemented by a grassroots initiative or community (**Table 6**). The

predominance of local/regional/national authorities and companies or private initiatives (7 instances for each type) in implementing these practices underscores the pivotal role of public policy and regulatory frameworks in the wind farm sector, while also highlighting the innovation and leadership of private sector in developing effective practices.

Table 6 *Categorisation of good practices according to implementing entity*

Implementing entity		Good Practices
Local / Regional / National authority		7
Company / Private initiative		6
NGO / Non-profit organisation		1
Combinations	Company / Private initiative; Local / Regional / National authority	4
	Company / Private initiative; Other	3
	Company / Private initiative; Local / Regional / National authority; Grassroot initiative / Community	1
	Company / Private initiative; Local / Regional / National authority; Other	1

3.3. Good Practices

This section provides a comprehensive overview of the good practices collected by project partners through the questionnaire. The good practices are presented both in text and table (**Annex II**: Compilation of Good practices) and organised by country. For each practice, details such as the title, type, implementing entity, wind farm location, and the specific phase of the lifecycle where it was implemented are included, accompanied by a short description.

3.3.1 Good practices identified in Spain

1. Open participation offer to local investment while developing the Aeolic project – Spain

Type: *Other – Regional law*

Implementer: Enel Green Power S.p.A.

Implementer type: Company/ Private initiative; Local/ Regional/ National authority – It is a company that implements the good practice; however, it is also mandatory by regional law.

Wind farm location: La Jonquera, Agullana, Capmany, Biure, Pont de Molins, Llers, Vilafant y Figueres (Cataluña) – Spain

Wind farm type: Onshore

Phase: Permitting

Description: This practice pertains to the Catalan Government's decree on renewable energy installations which foresees the partial ownership of wind farms by the local community. In particular local stakeholders, including natural and legal persons, public or private, are provided with the opportunity to acquire a minimum of 20% ownership or financially participate in wind park projects. Participants from municipalities hosting the wind park and power lines (e.g., La Jonquera, Agullana, Capmany, Biure, Pont de Molins, Llers, Vilafant, and Figueres)

are guaranteed an annual return of 5.5% for ten years. Investors from other/ adjacent municipalities in the region, where the mills or lines are not present, receive a 4.5% return.

Resources:

- https://www.lavanguardia.com/natural/20230112/8676693/crowdfundig-busca-allanar-camino-primer-parque-eolico-emporda.html
- https://mediambient.gencat.cat/web/.content/home/ambits_dactuacio/avaluacio_ambiental/banc_dades_avaluacio_ambiental/pendents-publicacio-dogc/resolucions/otaagi20210006_pe_galatea_dia_signed.pdf

2. Collaborative agreements for community benefits and revenue sharing in communal land use for wind farms – Allande, Asturias

Type: Participatory models in planning and permitting procedures

Implementer: EDP

Implementer type: Company/ Private initiative

Wind farm location: Allande, Asturias – Spain

Wind farm type: Onshore

Phase: Planning (Site selection); Operation

Description: The practice refers to collaborative agreements that take place in areas located in local common or municipal lands. In these cases, the selection of wind farm locations is based not only on fulfilling necessary technical criteria, such as resource availability, accessibility, and network connectivity, but also on how their presence impacts (or could impact) the communal properties. As the wind farm is located on local common or municipal lands, agreements are reached with these communities so that the local community receives some form of benefit for granting or allowing the installation and operation of the wind farm. Consequently, a portion of the land leasing or purchasing costs is managed by the local authorities (City Councils or Regional Administration). This portion is

dedicated to maintaining and improving communal properties, while the remaining part is allocated to the co-proprietors.

Resources:

- https://aeeolica.org/sobre-la-eolica/mapa-de-parques-eolicos/asturias/sierra-de-los-lagos/

3. Preserving cultural heritage in the permitting phase of wind farms - Burgos, Spain

Type: *Other – Measures for preserving and restoring Galician traditional architecture*

Implementer: Municipality of Rabe de las Calzadas

Implementer type: Local/ Regional/ National authority

Wind farm location: The municipalities of Albillos, Arcos de la Llana, Buniel, Cavia, Cayuela, Villalbilla de Burgos, Villagonzalo Pedernales and Estépar, Province of Burgos - Spain

Wind farm type: Onshore

Phase: Permitting

Description: The practice focuses on mitigating the impact of wind farms on cultural heritage and recreational sites. It encompasses strategies for ensuring and, where necessary, restoring traditional buildings and architecture in these areas. These measures have to be planned beforehand as a prerequisite for obtaining permits to install wind farms in such locations, ensuring a balance between energy development and cultural conservation.

Resources:

- https://aeeolica.org/sobre-la-eolica/mapa-de-parques-eolicos/galicia/ameixeiras-testeiros/

4. Specific Annex on Environmental Integration in the project's construction – Parque Eólico Campillo de Altobuey, Spain

Type: Policies mitigating potential biodiversity risks

Implementer: Energía Eólica Galerna, S.L.U.

Implementer type: Company/ Private initiative

Wind farm location: Campillo de Altobuey (Enguidanos); Puebla del Salvador (Cuenca) – Spain

Wind farm type: Onshore

Phase: Planning (Site selection); Permitting; Construction; Operation; Decommissioning

Description: The Specific Annex on Environmental Integration in the construction project encompasses all actions associated with the project. It includes a range of preventive, corrective, and compensatory measures aimed at significantly reducing environmental impacts, in compliance with regulatory standards. Embodying the depth and scope of an executive project, the annex also covers budgeting and cartography. These stipulations align with the provisions detailed in the Environmental Impact Assessment (EIA) and the Restoration Plan. The promoter is obligated to address and apply the measures and provisions stipulated in the annex.

Resources:

- https://www.boe.es/diario_boe/txt.php?id=BOE-A-2020-4536
- https://www.boe.es/diario_boe/txt.php?id=BOE-A-2021-19590

5. Collaborative wind farm development on communal lands – Neighbourhood Mountain Community of Zobra, Spain

Type: Compensation schemes (e.g., energy communities)

Implementer: Iberdrola Energía Renovables Internacional, S.A.

Implementer type: Company/ Private initiative; Other

Wind farm location: Zobra (Lalín), Galicia – Spain

Wind farm type: Onshore

Phase: Permitting; Operation

Description: The wind farm was established on areas, known as "Neighbourhood mountains in common hands". These land areas collectively owned by all local residents and as such they are managed by local communities or groups of individuals (acting as social collectives) rather than private individuals or corporations. When developing a wind farm in areas with communal forests, developers work in tandem with local communities to align the project with communal interests and values, ensuring it brings economic benefits and addresses local concerns. To alleviate initial local worries about low expropriation prices and potential negative impacts on hunting, tourism, and the local economy, the developer in this area proposed a compensation scheme. This initiative allowed the small local community to invest in their development and combat rural depopulation. The scheme included creating job opportunities, improving infrastructure, enhancing tourism accommodations, and maintaining trails, among other measures.

Resources:

- https://aeeolica.org/sobre-la-eolica/mapa-de-parques-eolicos/20alicia/ameixeiras-testeiros/

3.3.2 Good practices identified in Poland

1. **Effective stakeholder engagement and community support strategies in wind farm development – Poland**

Type: Policies mitigating potential biodiversity risks; Communication strategies on the benefits of wind farms; Consultation mechanisms/ Consensus building procedures

Implementer: OX2

Implementer type: Company/ Private initiative

Wind farm location: Lublin region, Poland

Wind farm type: Onshore

Phase: Planning (Site selection); Permitting; Construction

Description: Throughout the stages of planning, permitting, and construction, the investor is committed to employing a comprehensive communication strategy, considering all stakeholders. This strategy encompasses local authorities, landowners, and residents both in the community where the wind farm is situated and in nearby communes. The investor has undertaken activities that supported the authorities and local residents in various spheres, such as social, sports, and infrastructure, thereby establishing itself as a "good neighbour." Additionally, environmental monitoring was a key component of this approach.

Resources:

- https://www.ox2.com/files/Financial_reports/OX2_annual_and_sustainability_report_2022_print.pdf
- https://polandweekly.com/2023/05/24/20-new-wind-farms-in-lubelszczyzna/ [1]

2. Enhancing regional economic development through local investment and support by wind farm investors – Poland

Type: Compensation schemes (e.g., energy communities)

[1] In their response the partner mentioned that the wind farm owner did not agree to provide all the data required for the study. However, through secondary desk research, we identified available resources that offer general information about the implementer and their sustainability management practices, details about the wind farm projects in the reported area, as well as valuable context and background insights for the identified good practice.

Implementer: Elawan

Implementer type: Company/ Private initiative

Wind farm location: Szerzawy, Pawłów Commune, Świętokrzyskie Voivodeship – Poland

Wind farm type: Onshore

Phase: Construction; Operation

Description: The practice pertains to the construction of a 10 MW wind farm in the Pawłów commune, complete with supporting infrastructure. The developer contributes to the local economy by paying real estate taxes to the Commune Office and rent to landowners. Additionally, the investor prioritises the utilization of local suppliers. Furthermore, the investor has played a significant role in community development by co-financing the expansion and reconstruction of the local primary school with an investment of PLN 600,000 and sponsoring local sports events, including the "Provincial Szerzawski Run." These actions have positively influenced the region's community and economic condition.

Resources:

- https://www.elawan.com/en/localizacion/szerzawy-wind-farm/
- https://pawlow.pl/aktualnosci/vi-wojewodzki-bieg-szerzawski-relacja-zdjecia.html
- https://fliphtml5.com/gjuk/wims/basic (p. 8)

3. Local residents as virtual prosumers of renewable energy – Policy paper, Poland.

Type: Compensation schemes (e.g., energy communities); *Other: This pertains to the amendment of the Act on Wind Farm Investments and Certain Other Acts introduced on 9 March 2023, which mandates local authorities to consult with the public and local communities before initiating a wind farm project.*

Implementer: Government of Poland

Implementer type: Local/ Regional/ National authority

Wind farm location: Applicable to all wind farms in Poland

Wind farm type: Onshore and Offshore

Phase: Operation

Description: Effective from 2024, the amendment mandates that investors allocate a minimum of 10% of the installed capacity of their wind farms to the inhabitants of the host commune. This scheme enables these residents to become virtual prosumers of renewable energy by acquiring a share of no more than 2 kW of the wind farm's energy production for 15 years. This obligation placed on wind farm investors represents a substantial shift in renewable energy policy, facilitating greater community involvement and investment in local renewable energy projects. By enabling residents to become virtual prosumers, the Act aims to foster a more inclusive and participatory approach to renewable energy development at the local level.

Resources:

- https://isap.sejm.gov.pl/isap.nsf/DocDetails.xsp?id=WDU20230000553
- https://isap.sejm.gov.pl/isap.nsf/download.xsp/WDU20230000553/O/D20230553.pdf
- https://www.lexology.com/library/detail.aspx?g=1bf680dc-6696-4ed5-a818-5e27644c0a8b#:~:text=On%2013%20March%202023%2C%20the,it%20should%20be%20500%20m
- https://www.dentons.com/en/insights/alerts/2023/march/20/admittance-of-modifications-of-10h-rule-for-wind-farm-locations

4. "Choczewo Municipality Powered by Wind" program for investors of offshore wind farms to support local initiatives – Poland

Type: Compensation schemes (e.g., energy communities)

Implementer: Choczewo Municipality; Baltic Power (PKN ORLEN and Northland Power); Ocean Winds; PGE Baltica and Ørsted

I**mplementer type:** Local/ Regional/ National authority; Company/ Private initiative; Grassroot initiative/ Community

Wind farm location and type: Choczewo, Poland

Wind farm type: Offshore

Phase: Planning (Site selection); Permitting

Description: The "Choczewo. Municipality Powered by Wind" program is a collaborative initiative by offshore wind farm investors focused on the Choczewo Commune. It aims to strengthen local social capital by subsidizing community-chosen initiatives. This approach includes identifying community needs, encouraging grassroots proposals, and supporting projects that address local challenges and enhance social engagement. Entities within Choczewo Commune are encouraged to participate, especially in projects encompassing social activity development, village support, safety enhancement, cultural heritage promotion, environmental protection, and youth development. This program underscores the offshore wind farm investors' commitment to both renewable energy and the sustainable development of local communities.

Resources:

- https://balticwind.eu/BalticWind_QCR-Q2_2023_Poland_EN.pdf (pp. 20-21)
- https://gmina-napedzana-wiatrem.pl/

5. Building positive relationships and fostering community engagement and mutual benefits in wind farm projects – Poland

Type: Communication strategies on the benefits of wind farms; Consultation mechanisms/ Consensus building procedures

Implementer: Green Power Development

Implementer type: Company/ Private initiative

Wind farm location: Towns and villages in Bogoria Commune (Malkowice, Ceber, Gorzków, Przyborowice, Szczeglice, Wysoki Duże, Pęcławice Górne, Witowice) – Poland

Wind farm type: Onshore

Phase: Planning (Site selection); Permitting

Description: The practice focuses on developing good working relations between the wind farm developer and the authorities and local communities for successfully implementing and maintaining sustainable wind farm projects. The aim is to cultivate a positive, cooperative atmosphere and guarantee mutual benefits. The initial step involved extensively informing the community about the benefits of wind energy development through numerous conferences and meetings in the investment planning phase. A crucial aspect was recognizing the community's investment needs and values, particularly emphasizing local culture and art. Consequently, this led to active community engagement in organising a variety of events, such as competitions, food workshops, and exhibitions featuring local artists. Additionally, the approach yielded financial benefits for both the commune and its residents.

Resources:

- https://dzialajlokalnie.pl/projekty/pierogowa-wioska-zaprasza-lato-produktem-lokalnym/2
- https://www.checiny.pl/asp/drukuj.asp?typ=13&menu=169&dzialy=169&akcja=artykul&artykul=27123
- https://echodnia.eu/swietokrzyskie/zamieszanie-przy-farmie-wiatrakow-w-bogorii-mieszkancy-beda-mogli-skladac-odszkodowania/ar/c1-152965734

- https://kielce.wyborcza.pl/kielce/7,47262,17193996,mieszkancy-martwia-sie-o-kasztanowce-bo-bedzie-budowana-droga.html
- https://green-power.com.pl/

3.3.3 Good practices identified in Greece

1. Bird collision avoidance system and thermal simulator for wind farms in Greece.

Type: Policies mitigating potential biodiversity risks

Implementer: Not specified

Implementer type: Local/ Regional/ National authority

Wind farm location: Florina, Varnountas mountain – Greece

Wind farm type: Onshore

Phase: Operation

Description: In order to better clarify the movements of birds over Mount Varnountas, an ornithological radar was used and the movements of birds (especially silver pelicans and rose pelicans) in the area were monitored, while a thermal simulator was developed to simulate the creation of thermals in the area and their use by wind-borne birds. This system was strategically installed on nine wind turbines, covering the entire wind park. Its purpose is to provide warnings and, when necessary, enable the immobilisation of wind turbines to prevent potential harm to birds.

Resources:

- https://www.windfarms-wildlife.gr/download_file.php?file=download_0_1_0_88.pdf

2. Sensitive area mapping for wind farm construction in Thrace, Greece

Type: Policies mitigating potential biodiversity risks

Implementer: WWF

Implementer type: NGO/ Non-profit organisation

Wind farm location: Thrace – Greece

Wind farm type: Onshore

Phase: Planning (Site selection)

Description: The proposal for site selection provides a map highlighting areas with significant populations of updraft birds. This map classifies the region into two clear groups based on the presence of highly at-risk bird species: "restricted zones" where the establishment of wind parks should be disallowed, and "augmented safeguard zones" where parks may be constructed with suitable mitigation strategies in effect.

Resources:

- https://www.contentarchive.wwf.gr/images/pdfs/2013-Aug-WWF-Orthi-Horothetisi-Aiolikon-Parkon.pdf

3. Innovative system to prevent birds from colliding with wind turbines – Digisec, Greek startup

Type: Policies mitigating potential biodiversity risks

Implementer: Digisec

Implementer type: Company/ Private initiative – Greek Startup

Wind farm location: Evros and Florina – Greece/ Taranto – Italy

Wind farm type: Onshore and Offshore

Phase: Operation

Description: Digisec's innovative technological solution is based on advanced 8K high-resolution cameras that monitor and use AI to identify birds, effectively

distinguishing them from other objects like planes, clouds, and drones. This technology plays a crucial role in environmental protection, specifically in the preservation of wild birds. The Digisec Bird Monitoring System has significantly reduced bird collisions with wind turbines, thereby decreasing unnecessary turbine shutdowns, and addressing public concerns. Its effectiveness has led to its adoption at the Beleolico offshore wind farm in Taranto, Italy.

Resources:

- https://www.naftemporiki.gr/business/1349862/digisec-protoporiako-systima-apotropis-proskrousis-ptinon-se-anemogennitries/
- https://www.liberal.gr/epiheiriseis/digisec-o-agrypnos-froyros-ton-aiolikon-parkon#:~:text=%CE%97%20%CE%BB%CF%8D%CF%83%CE%B7%20%CF%84%CE%B7%CF%82%20Digisec%20%CE%B2%CE%B1%CF%83%CE%AF%CE%B6%CE%B5%CF%84%CE%B1%CE%B9,%CE%B1
- https://energypress.gr/news/bird-monitoring-systemr-tis-digisec-sto-proto-yperaktio-aioliko-parko-tis-mesogeioy-stin-italia

3.3.4 Good practices identified in Belgium

1. Citizen participation through green energy cooperatives – Wind farm projects in Eeklo, Belgium

Type: Participatory models in planning and permitting procedures; Compensation schemes (e.g., energy communities); Communication strategies on the benefits of wind farms; Consultation mechanisms/ Consensus building procedures; Other

Implementer: Ecopower; City of Eeklo

Implementer type: Company/ Private initiative; Local/ Regional/ National authority

Wind farm location: Eeklo, Province of East-Flanders – Belgium

Wind farm type: Onshore

Phase: Planning (Site selection); Permitting; Construction; Operation

Description: The city of Eeklo has been involved in early-stage planning and has been highlighting the significance of wind energy in discussions with residents. In this context, a cooperative model is promoted, allowing residents to directly use electricity generated from the wind turbines. Ecopower, the installer of these turbines, offers a co-ownership model to both the City of Eeklo and local citizens through energy cooperatives, allowing up to 50% financial participation. Furthermore, aligning with the province's support model, the developer contributes to an environmental community benefit fund dedicated to energy projects and landscape interventions, continuing the developer's commitment in supporting local communities demonstrated in past projects. Moreover, in line with the provincial support model, the developer contributes to a community fund for environmental and energy projects, as well as landscape interventions.

Resources:

- https://www.ecopower.be/over-ecopower/productie-installaties/eeklo-huysmanhoeve
- https://www.ecopower.be/over-ecopower/productie-installaties/eeklo-1
- https://www.ecopower.be/nieuws/eeklo-en-ecopower-een-succesverhaal-met-massa-s-windmolens-en-nul-bezwaarschriften

2. Engaging residents in consultations and energy communities – Wind park in Mollem, Belgium

Type: Participatory models in planning and permitting procedures; Communication strategies on the benefits of wind farms; Consultation mechanisms/Consensus building procedures; Compensation schemes (e.g., energy communities); Other

Implementer: Storm

Implementer type: Company/ Private initiative

Wind farm location: Asse, Province of Flemish Brabant – Belgium

Wind farm type: Onshore

Phase: Planning (Site selection); Permitting

Description: The Mollem project is still in its preliminary stages, as the permit application was only recently submitted. The good practice associated with this project involves the various information sessions conducted to actively engage the community. Currently, there is an ongoing 30-day public consultation period, during which individuals can provide their feedback. A decision on the permit is expected by January. Once the construction phase begins, additional information sessions will be organised. During this phase, residents and schools will have the opportunity to visit the construction site, and local residents will be invited to participate as cooperators in the project.

Additionally, the developer has set up a resident participation cooperative (Storm CV) which enables local residents to invest in the developer's wind farms. Residents have the opportunity to buy up to 24 shares in this cooperative. The funds gathered by Storm CV are invested directly in the Storm wind farms, offering an anticipated annual return of between 4 and 6%.

Resources:

- https://www.storm.be/nl/windpark/mollem
- https://www.storm.be/nl/bewonersparticipatie

3. Community-engaged and environmentally compliant wind turbine project – Wind project E40 Deinze, Belgium

Type: Participatory models in planning and permitting procedures; Compensation schemes (e.g., energy communities); Policies mitigating potential biodiversity

risks; Communication strategies on the benefits of wind farms; Consultation mechanisms/ Consensus building procedures

Implementer: Energy company (Storm) and Citizens' cooperation (Energent)

Implementer type: Company/ Private initiative; Other

Wind farm location and type: Deinze, Oost-Vlaanderen – Belgium

Wind farm type: Onshore

Phase: Planning (Site selection); Permitting

Description: The planned installation of two wind turbines aligns with climate policy, nature conservation, and environmental legislation. Positioned alongside the E40, as well as the existing high-voltage line, these turbines adhere to the Flemish legislative framework. Complying with VLAREM (Flemish Regulations concerning the environmental permits) regulations, they are strategically located at a safe distance from residential areas to mitigate noise, shadow pollution, and impact on birds and bats. The project also includes a community engagement component, offering local citizens (and others) the opportunity to become co-owners of the wind turbine and share profits. Residents within a radius of 800m are given priority to subscribe to a capital call. The project has garnered substantial support, evidenced by over 500 letters of endorsement.

Resources:

- https://organisatie.energent.be/projectenenergentalgemeen/investeringsprojecten/windturbines/lopende-windprojecten/nevele/

3.3.5 Good practices identified in Finland

1. Enhancing community trust and engagement in wind farm projects through evidence-based health impact studies – Finland

Type: Consultation mechanisms/ Consensus building procedures

Implementer: THL: Finnish Institute for Health and Welfare

Implementer type: Local/ Regional/ National authority

Wind farm location: Nine wind energy areas, including Kauhajoki, South Ostrobothnia – Finland

Wind farm type: Onshore

Phase: Permitting; Operation

Description: Research on health issues experienced by residents living near wind farms can offer valuable insights into how or whether local concerns become a reality after the turbines come to their area. A study by the Finnish Institute for Health and Welfare (THL) in nine wind energy areas in Finland, such as the Sysimäki wind farm located within the South Ostrobothnia region, highlights such issues, including experiences of noise disturbance and associated symptoms. Disseminating these findings can greatly improve transparency and community involvement in wind farm planning. Such studies can also serve as valuable resources for evaluating and planning new projects and ensuring that developers are accountable for adhering to regulations. Additionally, such practices can foster collaboration with health and environmental experts, promoting ongoing research and discussions to address public concerns more comprehensively.

Resources:

- https://www.julkari.fi/bitstream/handle/10024/131157/YT5-2016_Turunen_ym_final.pdf
- https://www.sciencedirect.com/science/article/pii/S016041202100043X

2. Public engagement in revising regional land use plans for wind farm construction – Finland

Type: Participatory models in planning and permitting procedures

Implementer: All 19 Regional Councils in Finland

Implementer type: Local/ Regional/ National authority

Wind farm location and type: Applicable to all wind farms in Finland

Wind farm type: Onshore

Phase: Permitting

Description: The regional land use plan identifies suitable areas for wind energy and undergoes a revision process. A participation and assessment plan is developed to ensure public involvement during the revision process. There is a designated period for public input, and all received feedback receives an official response. The draft plan is adjusted as needed based on this feedback and additional studies. This procedure applies to all wind farms, with the Jouttikallio wind farm in South Ostrobothnia serving as an illustrative example.

Resources:

- https://ym.fi/en/wind-power-construction
- https://ym.fi/en/regional-land-use-plans

3. Bird radar protection system for endangered birds at offshore wind farm – Tahkoluoto, Finland

Type: Policies mitigating potential biodiversity risks

Implementer: Suomen Hyötytuuli Oy

Implementer type: Company/ Private initiative; Other

Wind farm location: Tahkoluoto, Finland

Wind farm type: Offshore

Phase: Operation

Description: To mitigate potential risks to bird species such as the black-backed gull and white-tailed eagle from wind turbines, the Tahkoluoto wind farm project

implemented a bird detection radar system. The installation of this radar for preventing and reducing bird accidents was a key factor in securing the necessary building permit. The radar system works by transmitting data to each wind turbine. When a turbine detects an approaching object identified as a white-tailed eagle or black-backed gull, it automatically issues a stop command to the rotor. The blades then cease movement within ten seconds, thereby averting potential harm.

Resources:

- https://www.robinradar.com/press/blog/how-radar-protects-endangered-birds-at-finnish-offshore-wind-farm

4. Participative approach in wind farm permitting process – Suolakangas wind farm, Finland

Type: Participatory models in planning and permitting procedures

Implementer: The city of Kauhajoki

Implementer type: Local/ Regional/ National authority

Wind farm location and type: Kauhajoki, South Ostrobothnia – Finland

Wind farm type: Onshore

Phase: Planning (Site selection); Permitting

Description: A participative approach was employed throughout the wind farm permitting process, involving key stakeholders such as:

- An appointed coordinator from the municipality working in collaboration with the wind company, municipal institutions and local residents.
- A clear communication strategy (and adherence to it) that emphasised open, honest, and empathetic engagement with citizens at every phase of the process.

- Implementation that took into account concerns, preferences, and up-to-date information, including flexibility to modify plans as needed.

Resources:

- https://www.ox2.com/fi/suomi/hankkeet/suolakangas/

3.3.6 Good practices identified in Ireland

1. Empowering wind farm communities through Community Benefit Funds – Sliabh Bawn wind farm, Ireland

Type: Compensation schemes (e.g., energy communities)

Implementer: Sliabh Bawn Power DAC, Coillte (a state-owned commercial forestry business), Greencoat Renewables and Bord Na Mona

Implementer type: Local/ Regional/ National authority; Company/ Private initiative; Other

Wind farm location: Sliabh Bawn Mountain, Strokestown, County Roscommon – Ireland

Wind farm type: Onshore and Offshore

Phase: Operation

Description: The operator of the Sliabh Bawn wind farm has initiated the application process for its Community Benefit Fund, accessible to community and voluntary groups, non-profit organisations, or organisations with a charitable status, based near the windfarm. This fund will provide €2 million in support over a 25-year period, with a focus on prioritizing projects that deliver socioeconomic benefits to the area, including strategic initiatives. Projects eligible for funding encompass a range of themes, including recreation, social sustainability, culture and heritage, environmental sustainability, and tourism. Applications for funding are subject to annual evaluation by an assessment panel.

Resources:

- https://www.coillte.ie/our-business/our-projects/sliabh-bawn-wind-farm-2/
- https://www.sliabhbawnwindfarm.ie/community-benefit/
- https://www.gov.ie/pdf/?file=https://assets.gov.ie/244348/0dece698-ab8e-459f-b885-3cc427406647.pdf#page=null

3.3.7 Good practices identified in Hungary

1. Benefits from wind farms installation – Public wind farm in Kulcs, Hungary

Type: Participatory models in planning and permitting procedures; Compensation schemes (e.g., energy communities); Policies mitigating potential biodiversity risks; Communication strategies on the benefits of wind farms; Consultation mechanisms/ Consensus building procedures

Implementer: EMSZET First Hungarian Wind Power Plant Ltd.

Implementer type: Company/ Private initiative; Local/ Regional/ National authority

Wind farm location: Kulcs – Hungary

Wind farm type: Onshore

Phase: Planning (Site selection); Permitting

Description: Hungary currently has 34 wind farms with 171 wind turbines generating a total of 330 MW. The first was installed in 2000 and the last in 2011. Since then, no new plants have been built. The wind farm in Kulcs, installed in 2001, is the first public wind turbine, with a rated capacity of 600 kW. It was made possible with financial support from the Ministry of Economy and the Ministry of Environment. The wind turbine installed at Kulcs will benefit areas with internal peripheries and will lead to the development of territorial wind energy plans, by bringing into play the required best practises.

Resources:

- https://www.winfo.hu/a-kulcsi-szeleromu/

3.3.8 Good practices identified in Latvia (and Estonia)

1. Engaging Communities through public consultation events for the cross-border offshore wind project ELWIND – Latvia/ Estonia

Type: Policies mitigating potential biodiversity risks

Implementer: Investment and Development Agency of Latvia

Implementer type: Local/ Regional/ National authority

Wind farm location: Latvia/ Estonia

Wind farm type: Offshore

Phase: Operation

Description: This practice involves organising public consultation events and information seminars related to the Latvian-Estonian offshore wind park project ELWIND. These events aim to inform the public about the project and provide them with opportunities to participate in discussions, share feedback, express concerns, and ask questions regarding the planned construction. Additionally, the wind farm's development includes conducting an analysis to assess its potential impact on bird migration routes, fish spawning areas, mammal habitats, and shipping routes. Technical studies will be also carried out to examine bed characteristics, water depth, and wind and wave measurements, with the goal of determining the most suitable wind farm location and planning the necessary infrastructure for electricity transmission.

Resources:

- https://www.offshorewind.biz/2023/07/13/latvian-estonian-cross-border-offshore-wind-project-receives-eu-funding/

- https://www.liaa.gov.lv/en/article/initial-public-consultation-offshore-wind-project-elwind-has-been-held?utm_source=https%3A%2F%2Fwww.google.com%2F

4. Assessment of good practices

This section outlines the award criteria and proceeds with the assessment of good practices, displaying and discussing the scores that the partners assigned to the identified good practices.

4.1. Evaluation criteria

The partners were asked to evaluate the identified good practices based on the following evaluation criteria:

- Their **effectiveness** in increasing social acceptance for wind farm projects
- Their **impact on the overall viability** of the wind farm projects
- Their **transferability potential**, namely their potential for being replicated or adapted to other contexts.
- Their **transferability rate**, namely how widespread the good practice is.

The **'transferability potential'** criterion, is further divided into four sub-criteria: a) the ease of adopting the good practice, considering factors like time and cost implications, b) its effectiveness in dispelling misconceptions, c) its ability to build consensus and enhance social acceptance, and d) its applicability to other regions, particularly in contexts where the addressed issue is widely encountered.

In alignment with the specified criteria, the questionnaire was designed so that each question corresponded to one of the evaluation criteria. The following table illustrates how each survey question relates to its respective award criterion (**Table 7**):

Table 7 *Survey questions and evaluation criteria*

Questions	Evaluation Criteria
1. How much has the implementation of the good practice contributed to building consensus and increasing public support for wind farm projects?	Good Practice **effectiveness** in increasing social acceptance for wind
2. To what extent has the good practice influenced the overall viability of the wind farm project?	Good Practice **impact on the overall viability** of the wind farm project
3. Could you evaluate the Good Practice's transferability regarding each of the following aspects?	Good Practice **transferability potential**, namely their potential for being replicated or adapted to other contexts.
3.1 The ease of adoption (considering time and cost, e.g., delays)	
3.2 The efficacy in dispelling misconceptions	
3.3 The capacity to building consensus and increasing social acceptance	
3.4 Its applicability to other territories (if the issue it aims to tackle is widely encountered)	
4. How widespread is the Good Practice in your territory?	Good Practice **transferability rate**, namely how widespread the good practice is.

Partners were asked to evaluate the collected good practices based on any quantitative data they could identify. Where this was not possible, they were asked to evaluate the good practices following their judgment. The respondents were asked to rate each good practice about their positive impact on a scale of 1 to 5, for each of the evaluation questions/ criteria. The transferability potential criterion refers to the cumulative score of the sub-questions. The maximum score that can be achieved for the first, second and fourth criterion is 5, while the third criterion has a maximum score of 20. It should be noted that when calculating the overall score for good practices, all criteria, encompassing the four sub-criteria of transferability potential, are equally included in the overall score as each holds significant and distinctive value in assessing the practices' comprehensive merit.

4.2. Assessment of good practices in Spain

The identified good practices in Spain predominantly emphasise compensation strategies (S1 and S5) and participatory schemes (S2) which are instrumental in fostering community engagement and ensuring the provision of benefits to local communities (**Table 8**). In particular, the second practice (S2) stands out as a combination of various measures for building consensus, such as collaboration agreements, consultations, and communication of benefits in this case the socio-economic advantages and employment opportunities, provided by wind farm developers to local communities.

Table 8 *Impact assessment of Good Practices from Spain*

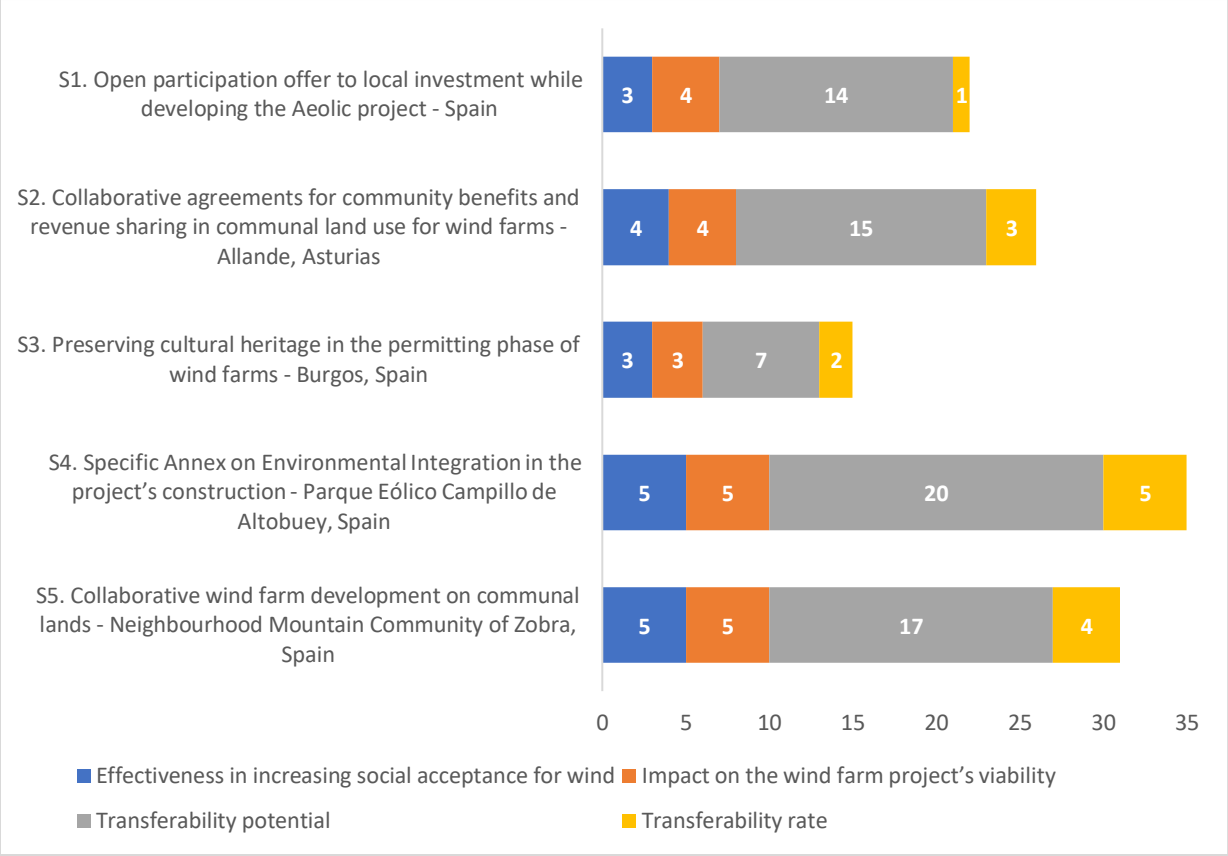
GOOD PRACTICE	*Effectiveness in increasing social acceptance*	*Impact on the wind farm project's viability*	*Transferability potential*				*Transferability rate*
S1. Open participation offer to local investment while developing the Aeolic project – Spain	3	4	14				1
			3	3	4	4	
S2. Collaborative agreements for community benefits and revenue sharing in communal land use for wind farms – Allande, Asturias	4	4	15				3
			4	3	4	4	
S3. Preserving cultural heritage in the permitting phase of wind farms - Burgos, Spain	3	3	7				2
			2	2	2	1	
S4. Specific Annex on Environmental Integration in the project's construction – Parque Eólico Campillo de Altobuey, Spain	5	5	20				5
			5	5	5	5	
S5. Collaborative wind farm development on communal lands – Neighbourhood Mountain Community of Zobra, Spain	5	5	17				4
			4	4	4	5	

A notable aspect of these practices in Spain is their alignment with the unique communal land ownership prevalent in some rural areas, exemplified by the concept of "Neighbourhood mountains in common hands." This alignment, coupled with specific regulations on using communal land for wind farm projects and the relevant compensatory schemes for residents, further underscores the strong inclination towards compensation and participatory approaches.

The focus on collaborative models and the establishment of energy communities explains the high scores assigned to all five practices regarding their effectiveness in enhancing social acceptance of wind projects and for positively influencing project viability. Although these practices have received low to moderate evaluations on their overall transferability rate (S1, S2, S3, S5), their comprehensive qualitative analysis and their high cumulative scores (**Figure 3**) underscores a significant potential for adopting these practices in other regions and their integration into broader policy frameworks. Specifically, when evaluating the sub-criteria related to their potential for transferability, these practices score highly in terms of ease of adoption, effectiveness in dispelling misconceptions, and applicability across various territories.

The fourth practice (S4) features examples of policy and regulatory measures for promoting increased biodiversity protection, particularly the Environmental Impact Assessment (EIA) process, crucial during the initiation of wind farm projects. This practice received top scores in all categories, recognising that obtaining a positive EIA and demonstrating effective management of environmental impacts are vital for enhancing social acceptance and ensuring the viability of wind farms in different contexts and regions.

Figure 3 *Impact assessment of Good Practices from Spain – cumulative scores*



4.3. Assessment of good practices in Poland

In Poland, the predominant focus of the identified good practices is on compensation strategies (P2, P3, P5), notably through the integration of local communities into energy communities and providing financial benefits via funding community actions and projects (**Table 9**). Practices P2 and P5 are particularly effective in enhancing social acceptance and possess high transferability potential. However, they exhibit moderate to low impact on the viability of wind farms, highlighting the fact that providing benefits to the local communities does not necessarily undermine the viability of wind energy projects. This suggests that such criteria are not always aligned.

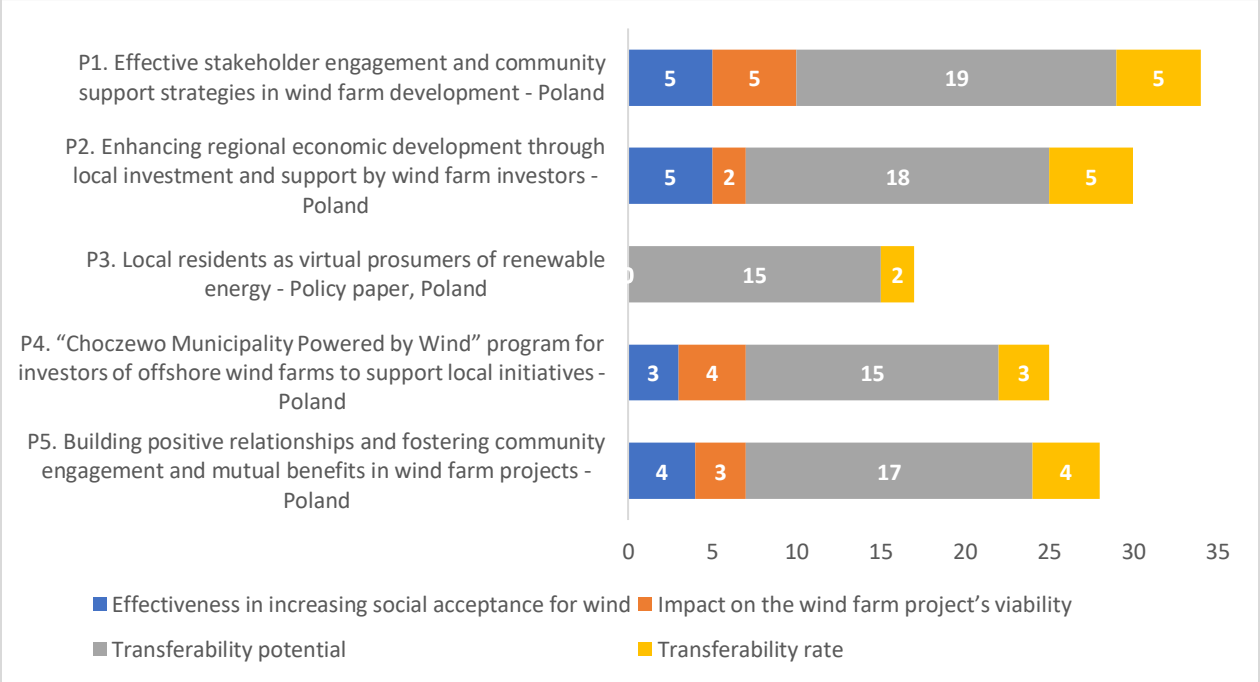
Table 9 *Impact assessment of Good Practices from Poland*

GOOD PRACTICE	*Effectiveness in increasing social acceptance*	*Impact on the wind farm project's viability*	*Transferability potential*				*Transferability rate*
P1. Effective stakeholder engagement and community support strategies in wind farm development – Poland	5	5	19				5
			4	5	5	5	
P2. Enhancing regional economic development through local investment and support by wind farm investors – Poland	5	2	18				5
			5	4	4	5	
P3. Local residents as virtual prosumers of renewable energy – Policy paper, Poland	N/A	N/A	15				2
			2	5	5	3	
P4. "Choczewo Municipality Powered by Wind" program for investors of offshore wind farms to support local initiatives – Poland	3	4	15				3
			4	4	4	3	
P5. Building positive relationships and fostering community engagement and mutual benefits in wind farm projects – Poland	4	3	17				4
			5	3	4	5	

Regarding practice P3, which involves a new policy for virtual prosumer participation (i.e., local communities' direct or indirect participation both in the production and consumption of energy) in renewable energy, no scores have been assigned for the first two criteria while also its transferability potential and rate are moderate to low. This is partly because its implementation is scheduled for early 2024, and thus concrete results are not yet available for definitive evaluation.

Practices P1 and P4 concentrate on comprehensive communication strategies to boost stakeholder engagement and participation. Specifically, P4 encompasses a collaborative venture between offshore wind farm investors and the local community with the aim to contribute to the sustainable development of the local community by reinvesting the benefits of renewable energy production into local social activities and projects. Both P1 and P4 score highly in terms of effectiveness in promoting social acceptance and transferability, marking them as attractive options for policy integration as well as for building consensus among local communities for wind energy projects. The following graph presents the cumulative scores of the good practices identified in Poland (**Figure 4**).

Figure 4 *Impact assessment of Good Practices from Poland – cumulative scores*



4.4. Assessment of good practices in Greece

The identified good practices in Greece predominantly relate to measures, and particularly technologies, aimed at mitigating biodiversity risks in the context of wind farms. All three practices demonstrate moderate to low effectiveness in bolstering social acceptance (**Table 10**). The first two practices (G1, G2) exhibit a low rate of transferability, primarily due to their specific nature and localised application in certain wind farms. While these solutions play a critical role in effectively mitigating threats to biodiversity and ensuring uninterrupted operation of wind farms (e.g., by reducing unnecessary turbine shutdowns due to bird collisions), they may not be perceived as directly beneficial by local communities, as they often do not experience their effects firsthand. However, these technologies are crucial for the operational success and viability of wind farm projects, as reflected in their high scores for impact on wind farm viability.

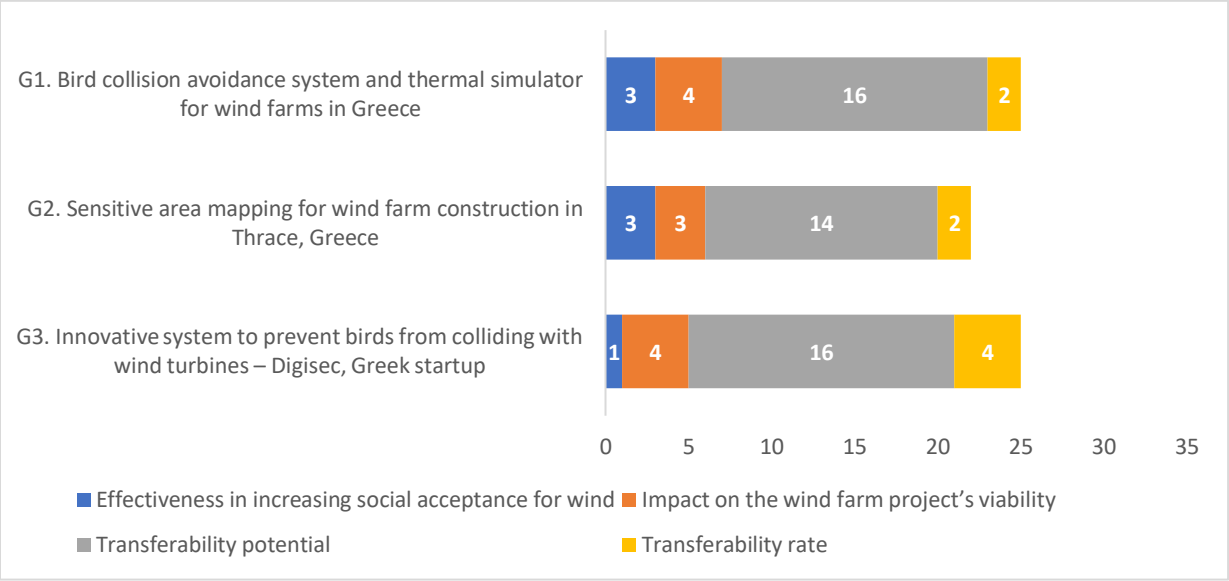
Table 10 *Impact assessment of Good Practices from Greece*

GOOD PRACTICE	*Effectiveness in increasing social acceptance for wind*	*Impact on the wind farm project's viability*	*Transferability potential*				*Transferability rate*
G1. Bird collision avoidance system and thermal simulator for wind farms in Greece	3	4	16				2
			3	4	4	5	
G2. Sensitive area mapping for wind farm construction in Thrace, Greece	3	3	14				2
			3	3	4	4	
G3. Innovative system to prevent birds from colliding with wind turbines – Digisec, Greek startup	1	4	16				4
			4	4	4	4	

The third practice (G3) stands out with a high transferability rate, due to its broader adoption in wind farms not only in Greece but also in other territories, such as its implementation in an offshore wind farm in Italy. Overall, these practices due to their focus on operational aspects of wind farms have the potential for practical adaptation in other contexts and geographies.

The following graph presents the cumulative scores of the good practices identified in Greece (**Figure 5**).

Figure 5 *Impact assessment of Good Practices from Greece – cumulative scores*



4.5. Assessment of good practices in Belgium

In Belgium, the primary focus of the identified practices revolves around participatory models and communication strategies aimed at increasing local residents' involvement in the development and operation of wind farms. These practices refer to green energy cooperatives, enabling local communities to directly utilise electricity generated by turbines (B1); organising consultation events (B2) where communities can voice their concerns, ask questions, and provide feedback on local wind farm operations; and opportunities for residents to become co-owners of wind turbines and share in the profits (B3) (**Table 11**).

Table 11 *Impact assessment of Good Practices from Belgium*

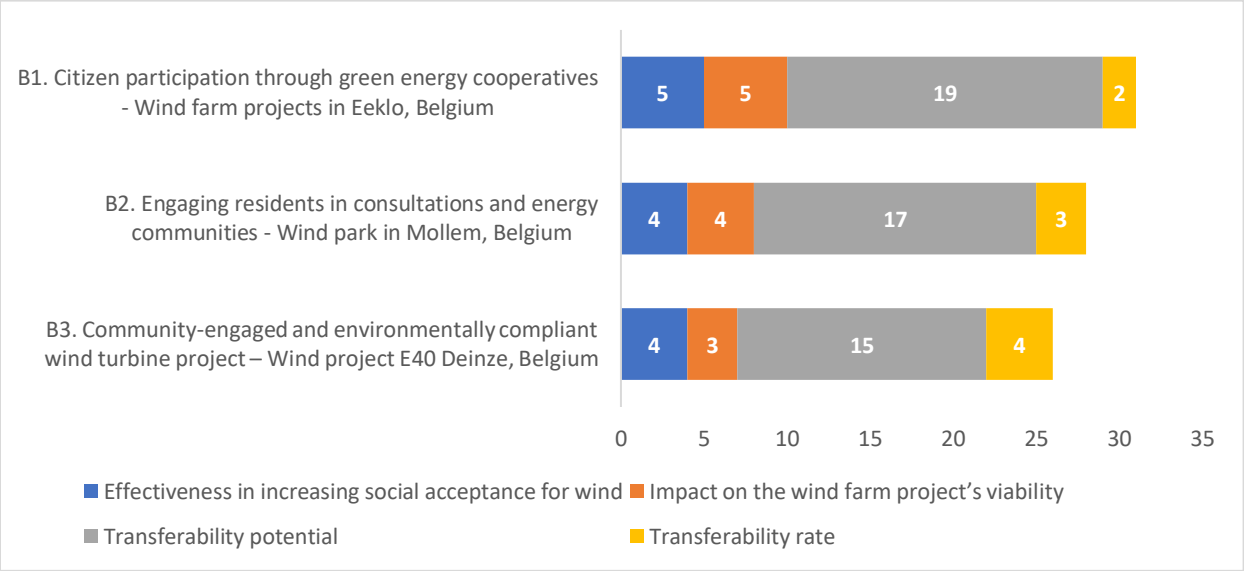
GOOD PRACTICE	*Effectiveness in increasing social acceptance for wind*	*Impact on the wind farm project's viability*	*Transferability potential*				*Transferability rate*
B1. Citizen participation through green energy cooperatives – Wind farm projects in Eeklo, Belgium	5	5	19				2
			4	5	5	5	
B2. Engaging residents in consultations and energy communities – Wind park in Mollem, Belgium	4	4	17				3
			3	4	5	5	
B3. Community-engaged and environmentally compliant wind turbine project – Wind project E40 Deinze, Belgium	4	3	15				4
			3	3	4	5	

All three practices are evaluated as highly effective in boosting social acceptance of wind energy and positively impacting the viability of wind farm projects. Furthermore, their high transferability and potential for policy integration underscore the significant role of cooperative

initiatives and collaborative agreements between wind farm developers and local communities in enhancing and building consensus for the development of wind energy projects.

The following graph presents the cumulative scores of the good practices identified in Belgium (**Figure 6**).

Figure 6 *Impact assessment of Good Practices from Belgium – cumulative scores*



4.6. Assessment of good practices in Finland

In Finland, the identified good practices mainly focus on consensus-building procedures and participatory models. These include enhancing community trust and engagement through evidence-based health impact studies (F1), involving the public in revising land use plans (F2) and in permitting processes (F4) for wind farm construction. Additionally, one practice (F3) involves a technological measure, specifically a bird radar protection system in an offshore wind farm, to mitigate negative impacts on biodiversity (**Table 12**).

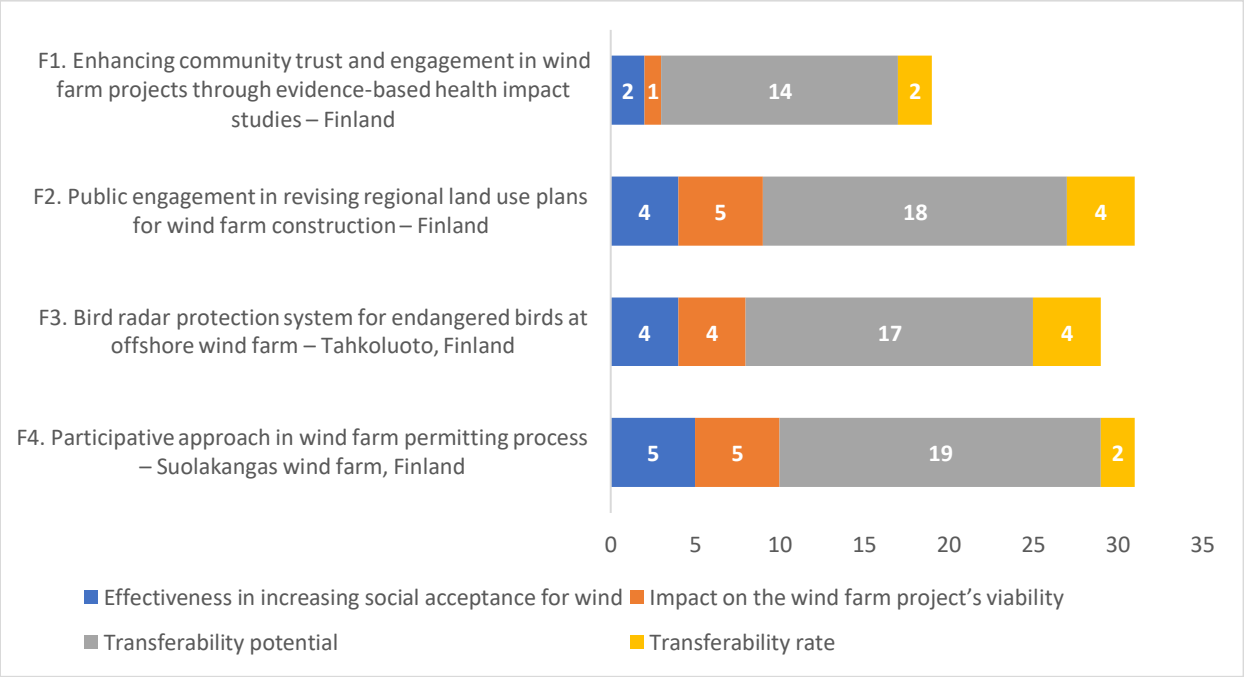
Table 12 *Impact assessment of Good Practices from Finland*

GOOD PRACTICE	*Effectiveness in increasing social acceptance for wind*	*Impact on the wind farm project's viability*	*Transferability potential*				*Transferability rate*
F1. Enhancing community trust and engagement in wind farm projects through evidence-based health impact studies – Finland	2	1	14				2
			4	3	3	4	
F2. Public engagement in revising regional land use plans for wind farm construction – Finland	4	5	18				4
			4	4	5	5	
F3. Bird radar protection system for endangered birds at offshore wind farm – Tahkoluoto, Finland	4	4	17				4
			4	4	4	5	
F4. Participative approach in wind farm permitting process – Suolakangas wind farm, Finland	5	5	19				2
			4	5	5	5	

Except for the first practice (F1), the other three demonstrate very high scores across all criteria, showcasing their strong potential for transfer and adaptation as territorial policy instruments. The first practice (F1) is distinct in that it is not a practical measure but rather pertains to findings from research on health issues experienced by residents living near wind farms. The value of this practice resides in the potential of these research studies to clarify issues associated with wind farms, either by dispelling myths and falsehoods or by identifying and highlighting problems that require attention. While such research and the dissemination of its results can inform the development of good practices and the evaluation of wind farm project actions, it is less directly applicable as a concrete practice for enhancing social acceptance.

The following graph presents the cumulative scores of the good practices identified in Finland (**Figure 7**).

Figure 7 *Impact assessment of Good Practices from Finland – cumulative scores*



4.7. Assessment of good practices in Ireland

The identified good practice in Ireland refers to the provision of Community Benefit Funds associated with wind farms (**Table 13**). These funds involve financial arrangements where developers allocate a portion of the wind farm's revenue to support local projects and initiatives that enhance the well-being of residents, thereby directly benefiting communities near the wind farm. The allocation and administration of these funds can vary between projects and are typically defined through agreements between the developer and the local community or authorities.

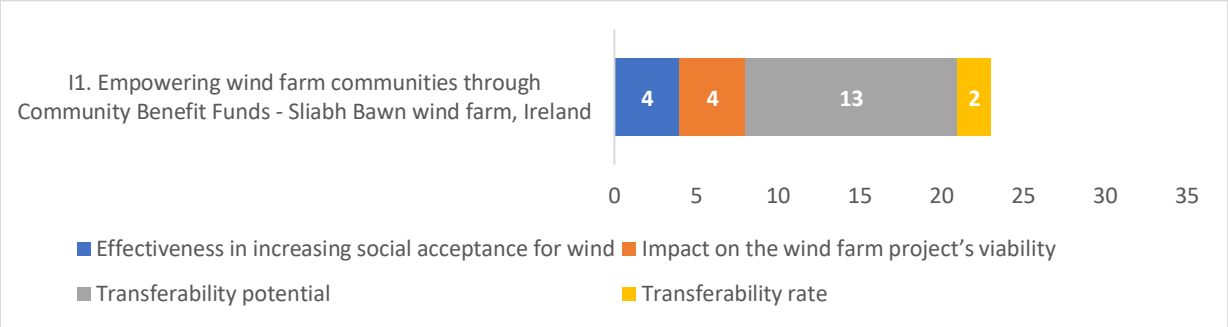
Table 13 *Impact assessment of Good Practices from Ireland*

GOOD PRACTICE	*Effectiveness in increasing social acceptance for wind*	*Impact on the wind farm project's viability*	*Transferability potential*				*Transferability rate*
I1. Empowering wind farm communities through Community Benefit Funds - Sliabh Bawn wind farm, Ireland	4	4	13				2
			4	3	3	3	

This practice receives relatively high scores in enhancing social acceptance and impact on wind farm viability, but only moderate scores in transferability potential and rate. Despite this moderate transferability rating, this practice still holds the capacity for widespread adoption and integration into territorial policy instruments. It also bears similarities to analogous practices observed in Spain and Belgium.

The following graph presents the cumulative score of the good practice identified in Ireland (**Figure 8**).

Figure 8 *Impact assessment of Good Practices from Ireland – cumulative scores*



4.8. Assessment of good practices in Hungary

The case identified in Hungary does not exemplify a specific implementation of good practice. Instead, it highlights the benefits that existing wind farms have brought, and potentially could bring, to surrounding areas. This case aims to encourage the sustainable development of territorial wind energy plans and the adoption of best practices. However, the nature of this case means that its evaluation especially in terms of transferability does not yield significant insights (**Table 14**).

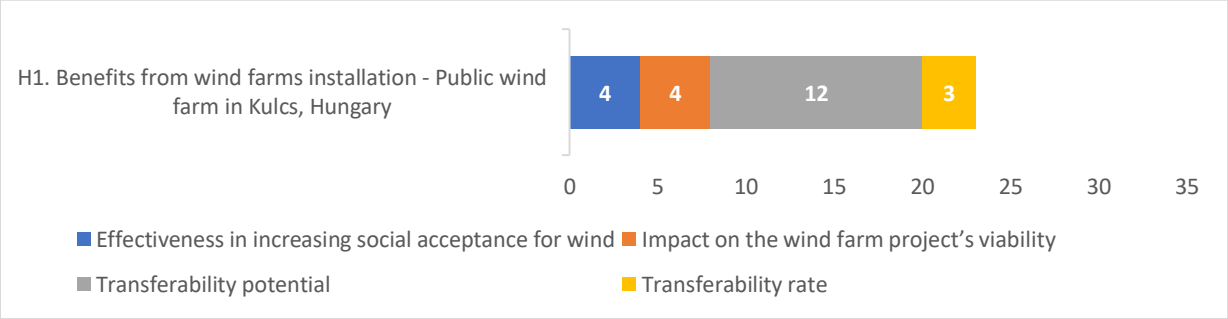
Table 14 *Impact assessment of Good Practices from Hungary*

GOOD PRACTICE	*Effectiveness in increasing social acceptance for wind*	*Impact on the wind farm project's viability*	*Transferability potential*				*Transferability rate*
H1. Benefits from wind farms installation - Public wind farm in Kulcs, Hungary	4	4	12				3
			3	3	3	3	

Nevertheless, it is noteworthy to mention the unique context of wind energy development in Hungary, as the country has not seen the installation of new wind capacity over the past decade. This lack of progress is largely attributed to legislation introduced in 2016, which imposes strict restrictions on wind farm development, distinguishing Hungary's situation in the field of wind energy.

The following graph presents the cumulative score of the good practice identified in Hungary (**Figure 9**).

Figure 9 *Impact assessment of Good Practices from Hungary – cumulative scores*



4.9. Assessment of good practices in Latvia/Estonia

The practice identified in Latvia involves consultation procedures, technical analyses, and assessments to gauge the environmental impacts of an offshore wind farm project. This project is unique in its location, spanning both Latvia's and Estonia's territories, making its application relevant to both countries. It scores highly in the initial three criteria but moderately in terms of transferability rate (**Table 15**).

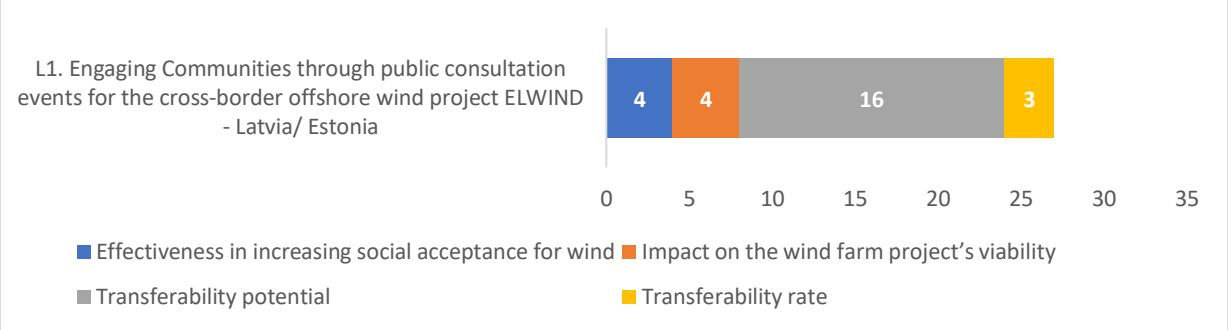
Table 15 *Impact assessment of Good Practices from Latvia/Estonia*

GOOD PRACTICE	*Effectiveness in increasing social acceptance for wind*	*Impact on the wind farm project's viability*	*Transferability potential*				*Transferability rate*
L1. Engaging Communities through public consultation events for the cross-border offshore wind project ELWIND - Latvia/ Estonia	4	4	16				3
			4	4	4	4	

The project's interterritorial nature, combined with its successful adaptation in offshore wind farms and the collaborative activities it entails (information seminars and consultation events), demonstrate a strong capacity for adaptation and application in varying contexts.

The following graph presents the cumulative score of the good practice identified in Latvia (**Figure 10**).

Figure 10 *Impact assessment of Good Practices from Latvia/Estonia – cumulative scores*



5. Discussion of the main findings

This section discusses the key findings from the BIOWIND territory survey, which yielded several good practices on improving the social acceptance of wind farms. Based on the overall evaluation scores, certain types of good practices identified by partners have stood out. These include the eleven most highly rated good practices, each achieving an overall score above 80%. Overall, the following broad categories of good practices have been identified and discussed below.

5.1. Key categories of good practices

1. **Participatory models in planning and permitting procedures – combined with communication and awareness-raising strategies**

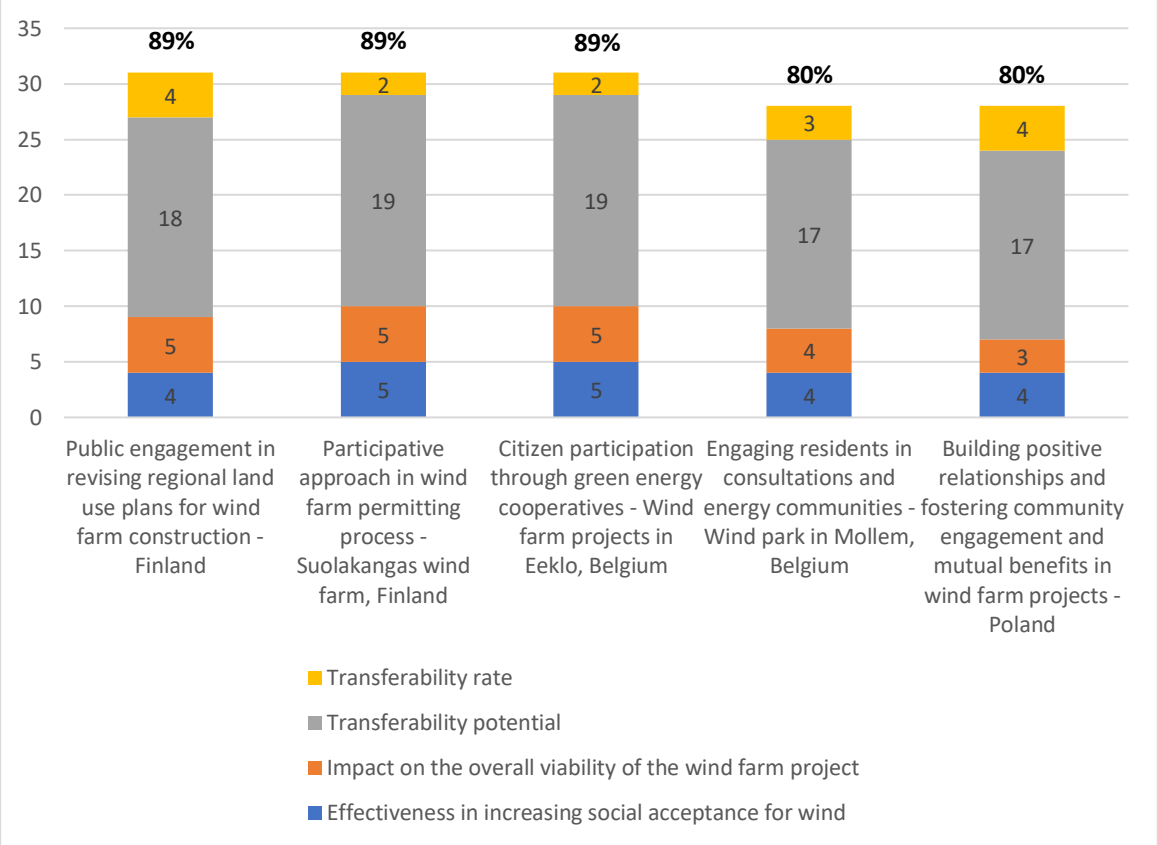
   Practices that incorporate participatory models in the planning and permitting stages of new wind farm projects have been recognised as highly effective in fostering community engagement and promoting social acceptance. In particular, public involvement in planning and policy-making, such as participation in public consultations for the deployment and operation of wind farms, has been shown to be instrumental for building trust and consensus.

   Feedback from partners indicates that the impact of these approaches is further augmented by the implementation of effective communication strategies, which entail comprehensive interactions between local authorities, landowners, community representatives, and residents, e.g., through information seminars, town hall meetings, and open forums. This integrated approach, i.e., communication strategies and participatory models, is highly effective as well as easily transferable and adaptable to territorial conditions. They serve to raise awareness by providing accurate and accessible information about wind farm benefits,

addressing concerns, while also offering a platform for community members to express their views, contribute insights, and actively participate in finding solutions.

The graph below illustrates the most highly rated good practices involving participatory models, as well as a blend of communication strategies, consultation mechanisms, and public engagement measures (**Figure 11**). Two (2) practices have been implemented in Finland, two (2) in Belgium and one (1) in Poland. **Figure 11** shows scores for individual criteria in absolute terms and the total scores for each practice, both in absolute values and normalised to a 100-point scale.

Figure 11 *Most highly rated Good Practices involving participatory models, and combination of communication strategies, consultation mechanisms, and public engagement measures*



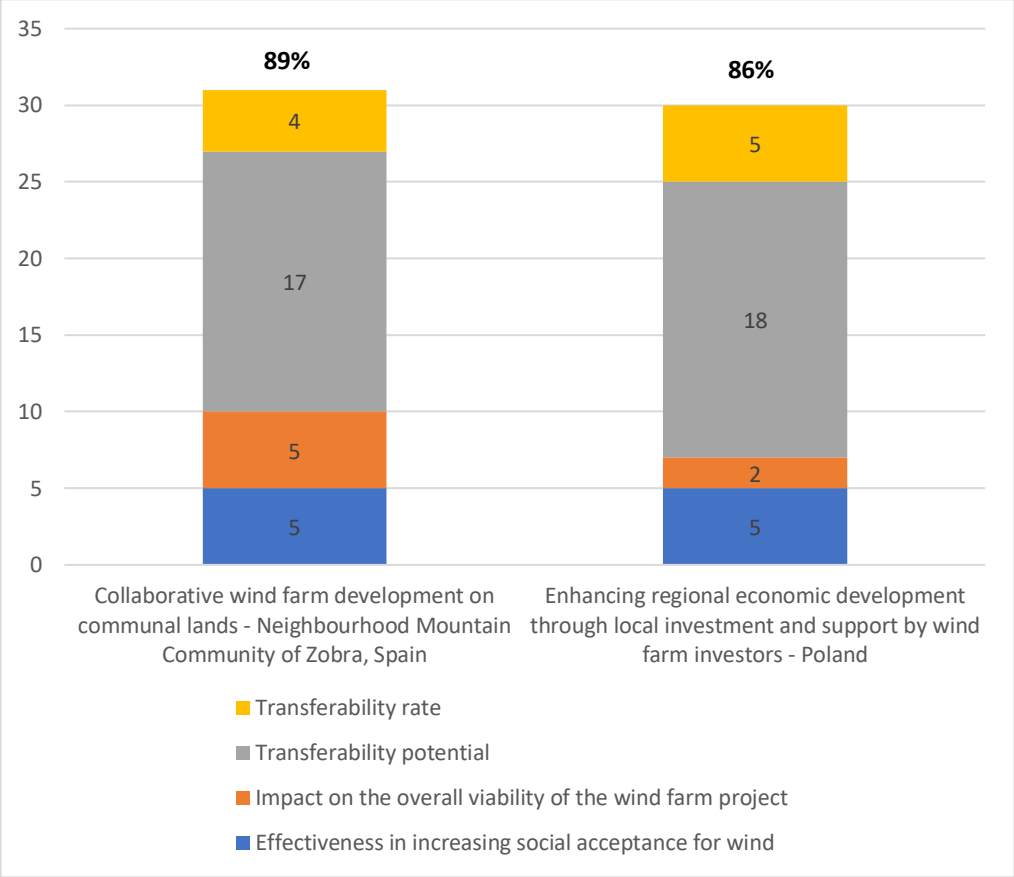
2. Practices involving compensation schemes and promoting fair distribution of benefits (e.g., energy communities)

Partners have highly rated practices involving compensation schemes for their effectiveness in enhancing social acceptance of wind farm projects and their potential for transferability. These schemes primarily encompass direct financial benefits such as shared revenues for local communities, investment in local infrastructure, and support for community activities. Integral to these approaches are also aspects such as local financial participation (e.g., energy communities, local co-ownerships), job creation, and collaborative agreements, all contributing significantly to the socio-economic development of the region.

These practices foster a strong sense of community ownership and investment, since they directly involve communities in the development and operation of wind farms. This involvement is key to demonstrating the tangible benefits of renewable energy projects to local communities, thereby strengthening support for such initiatives. Overall, compensation schemes play a crucial role in linking the economic advantages of wind farms with broader goals of community development.

The graph below illustrates the most highly rated good practices involving the distribution of financial benefits to local communities, including compensation schemes and revenue-sharing agreements (**Figure *12***). One (1) practice has been implemented in Spain and one (1) in Poland. **Figure *12*** shows scores for individual criteria in absolute terms and the total scores for each practice, both in absolute values and normalised to a 100-point scale.

Figure 12 *Most highly rated Good Practices involving compensation schemes and promoting fair distribution of benefits (e.g., energy communities)*



3. Policies and measures promoting increased biodiversity protection:

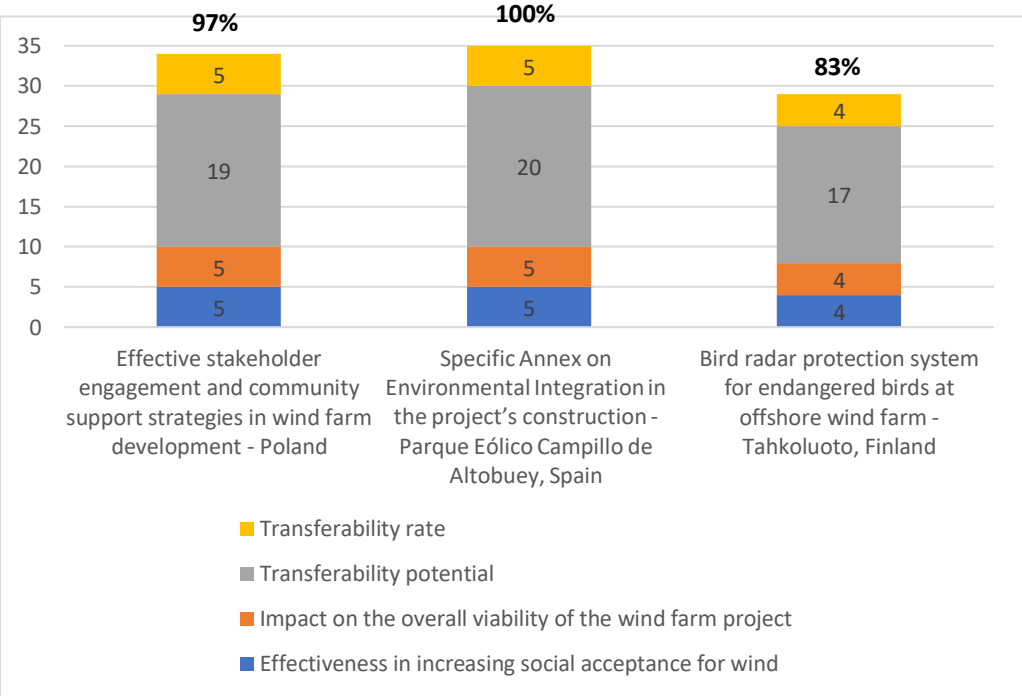
The third most highly rated type of good practice, as identified by partners, pertains to policies and measures that contribute to the mitigation of biodiversity risks. These policies encompass a range of strategies, including the standardisation of environmental impact assessments and regulations that ensure companies comply with requirements for addressing environmental impacts during the planning, development, operation, and decommissioning of wind farms. These policies and measures are essential for the operational success and viability of wind farm projects. They further demonstrate a strong

commitment to environmental protection and preservation, which is key to ensuring acceptance and support from environmental advocates and the broader community.

In addition, partners recognised technological solutions and wildlife protection measures, such as bird collision avoidance systems, as effective practices for mitigating environmental risks. The adoption and use of these technological innovations further align with and are reliant on broader environmental protection regulations, contributing to the implementation and evaluation of policy strategies that target biodiversity mitigation. As such, they offer a vital opportunity to influence the deployment and viability of wind farms.

The graph below illustrates the most highly rated good practices involving policies and measures for mitigating biodiversity risks (**Figure 13**). These practices are located in Spain, Finland, and Poland. It shows scores for individual criteria in absolute terms and the total scores for each practice, both in absolute values and normalised to a 100-point scale.

Figure 13 *Most highly rated Good Practices involving compensation schemes and promoting fair distribution of benefits (e.g., energy communities*



5.2. Applicability of identified good practices to offshore wind farms

Although the survey data indicates a greater focus on onshore wind farms, the identified good practices can be easily adapted to offshore settings. Offshore wind energy is expected to grow significantly in the coming years. Recognised for their higher capacity factors, offshore wind farms can play a pivotal role in renewable energy production expansion. offshore wind energy production is also expected to enhance the social acceptance of wind energy, as it often perceived more favourably by local communities[2].

However, the expansion of offshore wind energy presents some challenges, especially regarding grid integration in remote locations. Addressing these challenges requires investments in grid infrastructure and smart grid technologies. Compensation schemes identified in the survey, particularly those involving community investment participation, could be key in addressing these challenges. These schemes not only can support local involvement in financial and energy benefits, but also secure necessary grid infrastructure funding. Finally, adapting policies and measures to mitigate biodiversity risks is equally essential, ensuring offshore wind farms' ecologically responsible development and sustainable wind energy production and transmission.

[2] K. Linnerud, A. Dugstad, and B. J. Rygg, "Do People Prefer Offshore to Onshore Wind Energy? The Role of Ownership and Intended Use," *Renewable and Sustainable Energy Reviews* 168 (October 2022): 112732, doi:10.1016/j.rser.2022.112732.

6. Recommendations for integrating the good practices into territorial policy approaches

This section provides policy recommendations on how good practices can be effectively tailored and used to address specific territorial challenges and policy goals. The practices under examination mainly focus on those identified in the previous subsection as most effective for enhancing social acceptance and having the greatest transferability potential.

6.1. Integration of good practices in Spanish territories - Autonomous Community of the Region of Murcia, General Directorate of the Natural Environment (CARM) and Asturias Energy Foundation (FAEN)

Environmental concerns is one of the primary drivers for social opposition to wind energy projects in Spain. These include bird fatalities due to collisions with wind turbines, legislator gaps regarding the mitigation of biodiversity risks, and disruptions to marine life. Additionally, the visual impact of wind farms and public distrust in key stakeholders, such as policymakers and investors, significantly contribute to opposition. Against this backdrop, project partners in Spain have adopted specific policy approaches:

- In the Region of Murcia, the European Regional Development Fund (ERDF) Programme 2021-2027 aims, among other objectives, to enhance renewable energy usage. The programme seeks to foster sustainable and inclusive economic growth by incorporating renewables into the energy mix and enhancing waste management, while simultaneously safeguarding local biodiversity and ecosystems[3].

[3] European Commission, "Programme Region of Murcia ERDF 2021-2027," n.d., https://ec.europa.eu/regional_policy/in-your-country/programmes/2021-2027/es/2021es16rfpr018_en.

- In Asturias, the Asturias Energy Foundation (FAEN) provides technical and scientific support to the Principality of Asturias. FAEN plays a pivotal role in executing the Community Energy Transition Strategy, a key policy for transitioning the region's energy sector from fossil-based to zero-carbon sources.

The effective practices identified in Spain demonstrate a notable success rate in boosting social acceptance, addressing local concerns regarding biodiversity risk mitigation, and promoting active community participation in decision-making processes. Nevertheless, the policy approaches in both the Region of Murcia (CARM) and Asturias (FAEN) can benefit from adopting and integrating practices from other regions, focusing on enabling financial involvement of local residents and communities in wind energy projects and facilitating a more conducive environment for wind energy projects. To this end, the following practices can be considered:

1. **Good Practice: Engaging residents in consultations and energy communities (Belgium)**

   This practice, emphasising participatory models in planning and permitting procedures, is highly relevant for Spain, especially in addressing public distrust in stakeholders and enhancing community involvement. This approach could be used to improve support in extensive consultation processes and information sessions in both regions. By further empowering local residents and communities in Murcia and Asturias to invest financially and participate as cooperators in wind energy projects, a deeper sense of community engagement and economic benefit can be fostered.

2. **Good Practice: Engaging communities through public consultation events (Latvia/ Estonia)**

   Although not among the highest-rated practices, the approach used in the Latvian-Estonian offshore wind park project could be beneficial as an example of promoting public consultation events and information seminars. The successful cross-border implementation of this practice suggests its potential for easy adaptation and application

in diverse contexts. Providing local communities with opportunities to offer feedback, voice concerns, and inquire about the project can create a more inclusive and transparent decision-making process, fostering a deeper sense of community investment and support for the project. In addition, its cross-border application indicates that it can be easily transferred and adapted to different contexts.

3. Good Practice: Public engagement in revising regional land use plans (Finland)

Given the environmental concerns in Spain, particularly regarding biodiversity and bird collisions, adopting a participatory model in revising land use plans for wind farm construction, as practiced in Finland, can be beneficial. Involving the public in the assessment and revision of regional land use plans will ensure that environmental concerns are adequately addressed. Most importantly, such approach can enhance transparency and trust in the planning process, thereby mitigating opposition due to environmental concerns.

6.2. Integration of good practices in Polish territories - Marshal Office of Świętokrzyskie Voivodeship (KIELCE)

The primary drivers to social opposition to wind energy projects in Poland include environmental, regulatory, and economic factors. Key issues include habitat disturbance, bird collisions, distrust in key actors, lack of transparency in permitting procedures, and challenges in accessing reliable information. Additionally, limited local involvement in financial and decision-making processes, as well as the economic impacts on tourism, recreation, and agriculture, further fuel social opposition. To achieve the Region's goals, the Marshal Office of Świętokrzyskie Voivodeship is encouraged to implement specific policy actions and practices that aim to harmonise the deployment of wind energy with environmental protection and economic considerations in the local context. In addition to the highly rated cases already identified in Poland, the following practices from other regions can also be considered for utilisation:

1. **Good Practice: Participative approach in wind farm permitting process (Finland)**

   The participative approach used in Finland's wind farm permitting process can be tailored to Polish needs. This would involve appointing a coordinator from the local municipality to work in collaboration with the wind farm developers, municipal institutions, and local residents. A key aspect of this approach is the development of clear communication strategies and coordination mechanisms that foster transparent information sharing throughout the development of wind farms and strong collaborations among the key stakeholders. This strategy should address specific Polish concerns such as habitat disturbance and bird collisions, ensuring that modifications to plans can be made based on updated information and community preferences.

2. Good Practice: Bird radar protection system for endangered birds at offshore wind farm (Finland)

Policy strategies could prioritize installing radars in wind farms, a measure that helps reduce biodiversity and environmental risks and can be effective in enhancing social acceptance as well as the viability of wind farms. The bird radar protection system implemented in Finland's Tahkoluoto wind farm could be a valuable practice in Poland, particularly in areas where bird collisions are a concern. By installing a radar system that detects and protects bird species, wind farms in Poland can mitigate the risk to wildlife. This system works by automatically halting turbine blades when approaching birds are detected, thus preventing potential harm, and aligning wind energy projects with environmental conservation efforts.

6.3. Integration of good practices in Greek territories - Region of Western Greece (RWG)

In Greek partners' territories, environmental concerns is a key driver for social opposition to wind farm. Specifically, there is a notable concern over the inadequate consideration of biodiversity and environmental risks in the planning stages. Furthermore, apprehensions about the visual impact of wind farms on tourist and recreational areas' aesthetic value are the cause of opposition not only from environmental NGOs but also from farmers' associations and tourism service providers. Other challenges include limited access to reliable information about wind energy projects and limited opportunities for public participation (both formal and informal) in planning and permitting processes, such as consultations and dispute resolution mechanisms.

To address these issues, Greek partners can focus on incorporating practices that can effectively address issues regarding the environmental impacts, information needs, and public participation. These practices, encompassing rigorous impact assessments, advanced protective technologies, awareness-raising initiatives, and public participation in environmental decision-making, can create a framework for Greek partners to develop environmentally responsible and locally acceptable wind farm projects:

1. **Good Practice: Effective Stakeholder Engagement and Community Support Strategies (Poland)**

   This good practice can be integrated for establishing comprehensive communication and support strategies in order to improve information sharing and address misconceptions about wind farm projects. This can be crucial in areas within the Greek territories of interest where access to reliable information is limited.

2. **Good Practice: Public engagement in revising regional land use plans (Finland)**

   This participatory approach can be incorporated in the planning phase allowing for public input specifically on environmental concerns regarding the placement of wind farms as

well as public involvement in land use decision-making. This can help alleviate concerns regarding wind farms' aesthetic and visual impacts, especially near urban areas.

3. **Good Practice: Engaging communities through public consultation events (Latvia/ Estonia)**

   This practice could be also advantageous in the Greek context for supporting the organisation of public consultation events and information seminars. These forums would facilitate public discourse, allowing for the expression of concerns and inquiries about planned constructions, thus enhancing the overall process of community engagement.

4. **Good Practice: Specific Annex on environmental integration in the project's construction (Spain)**

   This practice, involving the establishment of preventive, corrective, and compensatory measures for reducing environmental impacts, aligns well with Greek needs. It can be used for standardising environmental impact assessments, ensuring thorough consideration of biodiversity and protected areas throughout the wind farm project lifecycle, in line with regulatory standards.

6.4. Integration of good practices in Belgian territories - Province of Flemish Brabant (PFB)

In Belgium, economic and regulatory factors are recognised as significant contributors to social opposition to wind energy projects. This resistance, mainly from local residents and Civil Society Organisations (CSOs), has the potential to escalate into conflicts, leading to notable delays in the development of wind projects. The principal issues raised include the reduced attractiveness of tourist and recreational areas due to the visual impact of wind farms, limited opportunities for public participation in planning and permitting processes, insufficient measures for both active and passive financial participation of local communities, and a general distrust towards policymakers and investors.

The territory has pinpointed practices that largely involve participatory models and consultation mechanisms in decision-making processes. These practices have been highly effective in mitigating opposition and building consensus among stakeholders regarding the benefits and significance of wind energy farms. In light of the recognised concerns in Belgian territories, the Province of Flemish Brabant could improve its policy approach by enhancing the already identified effective practices with comprehensive awareness and communication plans. The focus of these plans would be to educate communities about the benefits of wind energy and dispel possible misconceptions. Local information sessions and awareness events organized by municipalities can support this communication strategy. Engaging representatives from diverse stakeholder groups can further facilitate involvement in all phases of wind farm development, thus increasing trust and consensus.

In addition, the following practices from other regions can be adopted to further bolster social acceptance of wind farms in Belgium:

1. **Good Practice: Collaborative wind farm development on communal lands (Spain)**

   In adapting this model to Belgium, wind farm development could include forming agreements with local communities, particularly in areas with a strong local presence. These collaborations might concentrate on land use rights and securing community benefits that resonate with local values and concerns, such as sustaining or improving local tourism and recreational activities. A compensation scheme can also be proposed, offering shares of the energy production revenue to local communities, thus offsetting potential negative effects on the local economy, including impacts on tourism.

2. **Good Practice: Specific Annex on Environmental Integration in the project's construction (Spain)**

   This practice can be modified to encompass comprehensive regulations that ensure adherence to environmental protection measures during the construction phases of wind farm projects. This could establish provisions such as conducting extensive environmental impact assessments in line with broader environmental concerns that would include evaluations of visual and noise impacts on surrounding areas.

6.5. Integration of good practices in Finnish territories - Regional Council of South Ostrobothnia (RSCO)

In Finland, the implementation of wind projects faces challenges related to concerns over the impact of wind farms on the quality of life and the risk of bird collisions with turbines. Additionally, economic and social worries, compounded by issues of distrust among local residents, further fuel opposition. The good practices identified in Finland, as highlighted in this report, are effective in addressing these issues and can significantly enhance social acceptance.

Nonetheless, by drawing on experiences from other regions, the policy approach in Finland could be further enriched by fostering a more active, collaborative strategy for wind energy projects. In particular, this strategy should engage the public at every stage of wind projects, from planning to operation and decommissioning. The aim is to alleviate potential conflicts through proactive dialogue and consensus-building. In line with this, the following good practices could be considered and integrated:

1. **Good Practice: Specific Annex on environmental integration in the project's construction (Spain)**

   The integration of this practice can strengthen the regulatory mechanisms that are already in place in the Finnish context. By adopting this approach, Finnish wind projects could include extensive environmental impact assessments, focusing on addressing key issues such as habitat disturbance, bird collisions, and the technical characteristics of wind farms like noise and lighting.

2. **Enhancing regional economic development through local investment and support by wind farm investors (Poland)**

   The good practice of enhancing regional economic development through local investment and support, can be adapted to address specific challenges in Finland related to wind energy projects. In the Finnish context, this practice can be implemented by ensuring that

wind farm developers contribute significantly to the local economy where the wind farm is located. This can involve developers paying real estate taxes to the local government, similar to the approach in Poland, and ensuring that landowners are fairly compensated. Beyond financial contributions, developers can be encouraged to play an active role in community development. This could involve investing in local infrastructure projects, such as schools or healthcare facilities, and supporting local cultural and sports events.

6.6. Integration of good practices in Irish territories - Northern and Western Regional Assembly (NWRA)

In Ireland, local wind energy project may encounter resistance from local residents, primarily due to concerns about biodiversity and the environment. However, there is a noticeably more favorable attitude towards offshore wind farms, which are perceived as less harmful in terms of their effect on wildlife, tourism and aesthetics[4].

Local communities have also voiced concerns about the visual and noise impacts of wind farms on the landscape and their daily lives. Additionally, there is a relatively low level of public trust in project developers and authorities. This skepticism is attributed to widespread misinformation about wind energy projects and a lack of effective communication[5]. Addressing these communication gaps and misinformation is essential for improving social acceptance of wind energy projects in Ireland.

The good practice identified in the country associated with the provision of Community Benefit Funds to local communities and non-profit organisations provide socioeconomic benefits to local communities which can enhance residents' wellbeing and further support the acceptance of wind farm projects. Overall, Ireland has developed comprehensive policies that prioritise the involvement and buy-in of local communities, e.g., through the establishment of Sustainable Energy Communities[6] or microgeneration schemes that allow households to sell excess power back to Ireland's electricity grid.

[4] Y. Cronin, V. Cummins, and E. Wolsztynski, "Public Perception of Offshore Wind Farms in Ireland," *Marine Policy* 134 (2021): 104814, doi:https://doi.org/10.1016/j.marpol.2021.104814.
[5] M. McDonagh, "Opposition to Wind Farm Says Plans Are Being Assessed Based on Old Guidelines," The Irish Times, September 2020, https://www.irishtimes.com/news/environment/opposition-to-wind-farm-says-plans-are-being-assessed-based-on-old-guidelines-1.4343980.
[6] Sustainable Energy Authority Of Ireland, "Sustainable Energy Communities Programme," accessed December 1, 2023, https://www.seai.ie/community-energy/sustainable-energy-communities/index.xml.

To address the territorial challenges mainly stemming from environmental concerns and lack of essential and accessible information the territory could benefit from integrating the following good practices:

1. **Good Practice: Effective stakeholder engagement and community support strategies (Poland)**

   Implementing comprehensive communication and community support strategies is crucial in Ireland, where trust in project developers and authorities is low. This practice can help build trust, address misinformation, and involve more actively communities in the development and decision-making process of the wind farm, making it more transparent and inclusive.

2. **Public engagement in revising regional land use plans (Finland)**

   By involving the public in land use planning and site selection processes, such practice can help mitigate conflicts related to the visual and noise impacts of wind farms, ensuring that community preferences are considered in the development of wind farms. Comprehensive visual and noise impact assessments can be conducted in the planning stages, with findings being shared with the community and propose mitigation measures.

3. **Good Practice: Bird radar protection system for endangered birds (Finland, Greece)**

   Given the biodiversity concerns in Ireland, the adoption of advanced technologies crucial for wildlife protection, can be crucial in gaining public support for wind farm projects. These can be adapted for both onshore and offshore wind farms in Ireland, especially in areas with significant bird populations or other sensitive wildlife. The Tahkoluoto offshore wind farm in Finland exemplifies how such technological solutions and environmental protection measures can be incorporated as mandatory steps for permitting. Additionally, despite receiving lower evaluation scores, similar technological innovations implemented in Greek wind farms should not be overlooked. Innovations such as Digisec's bird

avoidance systems and thermal simulator used in Thrace, identified by partners as good practices, can be widely adopted given their valuable contributions to mitigating biodiversity risks and enhancing environmental protection.

6.7. Integration of good practices in Hungarian territories - Central Danube Development Agency Nonprofit Ltd. (CDDA)

In Hungary, the development of wind farms faces significant challenges and opposition due to a combination of restrictive regulatory frameworks, limited public knowledge, and insufficient engagement in wind energy projects. The country's strict regulations have allowed only the construction of small-scale wind energy projects, such as household turbines. More notably, wind energy parks are prohibited within 12 km of designated building areas, effectively excluding the entire country. As such the construction of wind power plants is essentially banned in the country. This challenge is further accentuated in the Central Danube region by a lack of a comprehensive approach to Renewable Energy Sources (RES) development within the Central Danube Priority Area Operational Programme, reflecting the wider national stance against wind energy.

Recent developments, however, suggest a shift in policy, with reports indicating Hungary's plans to reduce the exclusion radius from 12 kilometers to 700 meters. Despite this reduction, wind turbines will remain prohibited in densely populated areas, Natura 2000 sites, UNESCO World Heritage sites, and their installation will necessitate the consent of local communities[7].

Further exacerbating these challenges is the difficulty in obtaining information about wind energy projects and limited opportunities for procedural and financial participation of citizens and communities in these projects. These factors are identified as major disruptive elements, hindering the realization of wind energy initiatives.

To address these issues, the Central Danube Development Agency Nonprofit Ltd. can adopt and implement a multilevel approach focusing on increasing public awareness and promoting active engagement in wind energy projects, drawing inspiration from successful good practices.

[7] National Wind Watch, "Pressured by EU, Hungary Agrees to Reduce Windpower Setback from 12 Km to 700 m," National Wind Watch, November 2023, https://www.wind-watch.org/news/2023/11/24/pressured-by-eu-hungary-agrees-to-reduce-windpower-setback-from-12-km-to-700-m/.

Incorporating such good practices could help bridge the gap between the existing restrictive framework and the need for a more inclusive and well-informed framework for RES development, particularly wind energy, in Hungary. Consequently, the following practices are recommended for consideration:

1. **Good Practice: Public engagement in revising regional land use plans (Finland):**

   Given the strict regulatory environment in Hungary, the practice of involving the public in regional land use planning could be instrumental. This model facilitates community input and fosters collaborative decision-making between local communities and public authorities in selecting appropriate locations for wind farms, potentially easing tensions related to site selection and environmental issues. With the anticipated reduction of the 12 km exclusion zone, such an approach could significantly aid in the expansion and development of wind farm projects within the country, potentially leading to the creation of revised maps for wind farm installations.

2. **Good Practice: Citizen participation through Green Energy Cooperatives (Belgium)**

   The participatory model identified in Belgium could be particularly effective in Hungary, offering local residents the opportunity to become co-owners of wind projects. This model of financial involvement improves public support by demonstrating the economic advantages of wind energy to local communities, thus providing them with a vested interest in the projects' success.

3. **Local residents as virtual prosumers of renewable energy (Poland):**

   Although not among the top-rated practices, the approach used in Poland can also be beneficial, supporting sustainable local community development by reinvesting renewable energy profits into the community. Under this model, local residents could obtain a portion of the wind farm’s energy output for a set period (such as 1-2 kW over 10 years) that would be beneficial for both the developers and the local communities.

6.8. Integration of good practices in Latvian territories - Zemgale Planning Region (ZPR)

Environmental concerns are a major factor contributing to social opposition to wind energy projects in Latvia. These concerns relate to visual and noise impacts on tourism and recreational areas, bird collisions with wind turbines, and distrust towards sector stakeholders. Additionally, inadequate legislative measures for nature conservation and protected areas significantly affect public opinion for wind energy projects. A further obstacle is the limited public awareness of the socio-economic benefits of wind farms, such as local job creation and economic benefits, and the restricted opportunities for public participation in renewable energy initiatives[8].

Drawing on the most effective cases, the Zemgale Planning Region (ZPR) can integrate good practices in their policy approach that foster collaboration, trust, and acceptance in wind energy projects. This involves ensuring that local communities are thoroughly informed about the benefits of wind farm development, while simultaneously giving priority to environmental protection measures. In pursuit of these objectives, the following recommendations are proposed:

1. **Good Practice: Participative approach in wind farm permitting process (Finland)**

   This good practice employs participative approaches involving key stakeholders, especially local residents, during the permitting process. This can be implemented by designating a coordinator from the municipality to collaborate closely with the wind company, local authorities, and residents. Additionally, such a participative model can be further combined with a clear communication strategy that emphasises open and transparent engagement with citizens. Integrating flexibility in the planning process would also help address specific concerns in the territory regarding the preservation of natural and recreational areas and accommodate local preferences and needs.

[8] RES Monitor, "Local Opposition to Wind Projects (NIMBY) Impedes Project Completion in Latvia," 2021, https://resmonitor.eu/en/lv/barriers/1412/.

2. **Good Practice: Effective stakeholder engagement and community support strategies (Poland)**

Implementing a comprehensive communication strategy alongside community support activities, including environmental-themed initiatives, creative workshops, and sporting events, can enhance transparency and accuracy of information for residents while improving their well-being. These efforts can further establish developers and local authorities as responsible and considerate stakeholders, actively involving communities in the wind farm's development and decision-making process. Another aspect of this practice can involve environmental monitoring, ensuring that key environmental issues (such as noise and visual impacts on urban environments,) are responsibly managed.

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Annex I: Questionnaire (data collection tool)

The questionnaire is presented below. To answer it, please follow the link directly to the survey. For each good practice you wish to share, please submit a separate survey response by starting from the beginning.

https://ec.europa.eu/eusurvey/runner/BIOWIND_good_practice_survey

Questionnaire for BIOWIND Activity (A1.3)

A	**CONTACT INFORMATION**	
A.1	Name and surname of the person filling the questionnaire:	Click here to enter text.
A.2	Affiliation (partner organization):	Click here to enter text.
A.3	Contact email:	Click here to enter text.
A.4	Country covered:	Click here to enter text.
B	**IDENTIFYING GOOD PRACTICES FOR INCREASED SOCIAL ACCEPTANCE IN THE BIOWIND TERRITORIES**	
	GOOD PRACTICE 1	
B.1	**Could you please identify the good practice?**	
	Title (Name of reference)	Click here to enter text.
	Specific location (city, region)	Click here to enter text.
	Implementer	Click here to enter text.
	Relevant resources (Please provide a link)	Click here to enter text.
B.2	**Could you please specify which wind farm project the good practice is associated with?**	
	Name of the wind farm project	Click here to enter text.
	Location of the wind farm project	Click here to enter text.

	Type of location of the wind farm project (e.g., onshore, offshore)	Click here to enter text.
	Daily power generation capacity (in kWh)	Click here to enter text.
	Number of turbines	Click here to enter text.
	Individual power capacity (MW/turbine)	Click here to enter text.
	Total power capacity (in MW)	Click here to enter text.
	Relevant resources (Please provide a link)	Click here to enter text.
B.3	**Could you please specify the nature of the good practice?**	
	Participatory models in planning and permitting procedures	☐
	Compensation schemes (e.g., energy communities)	☐
	Measures or policies mitigating potential biodiversity risks	☐
	Measures reducing auditive or visual impact on local communities	☐
	Communication strategies on the benefits of wind farms	☐
	Consultation mechanisms/Consensus building procedures	☐
	Other	☐
	If you chose 'Other' please specify.	Click here to enter text.
B.4	**Could you please identify the legal status of the implementer of the good practice?**	
	Company / Private initiative	☐
	Local / Regional / National authority	☐
	Grassroot initiative / Community	☐
	NGO / Non-profit organisation	☐
	Other	☐

	If you chose 'Other' please specify	
B.5	**Could you please specify which phase of the wind farm project did the good practice concern? (Select all that apply)**	
	Planning (Site selection)	☐
	Permitting	☐
	Construction	☐
	Operation	☐
	Decommissioning	☐
B.6	**Could you provide a short description of the good practice in your own words? (Max. 5 lines)**	
	Click here to enter text.	
C	**ASSESSING IMPACT AND TRANSFERABILITY POTENTIAL OF THE GOOD PRACTICE**	
C.1	**How much has the implementation of the good practice contributed to building consensus and increasing public support for wind farm projects?** **[Please consider all available qualitative and quantitative data. If there aren't any, rate the good practice following you own judgment.]** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly' and 5 is 'Greatly')**	
	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	
C.2	**To what extent has the good practice influenced the overall viability of the wind farm project?** **[Please consider all available qualitative and quantitative data. If there aren't any, rate the good practice following you own judgment.]** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly' and 5 is 'Greatly')**	
	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	
C.3	**Could you evaluate the Good Practice's transferability regarding each of the following aspects?**	

	((Please rate on a scale of 1 to 5, where 1 is 'Limited' and 5 is 'Significant')				
I.	The ease of adoption (considering time and cost, e.g., delays)				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
II.	The efficacy in dispelling misconceptions				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
III.	The capacity to building consensus and increasing social acceptance				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
IV.	Its applicability to other territories (if the issue it aims to tackle is widely encountered)				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
C.4	**How widespread is the Good Practice in your region?** **((Please rate on a scale of 1 to 5, where 1 is 'Slightly widespread' and 5 is 'Very widespread)**				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
	GOOD PRACTICE 2				
B.1	**Could you please identify the good practice?**				
	Title (Name of reference)	Click here to enter text.			
	Specific location (city, region)	Click here to enter text.			
	Implementer	Click here to enter text.			
	Relevant resources (Please provide a link)	Click here to enter text.			
B.2	**Could you please specify which wind farm project the good practice is associated with?**				
	Name of the wind farm project	Click here to enter text.			
	Location of the wind farm project	Click here to enter text.			

	Type of location of the wind farm project (e.g., onshore, offshore)	Click here to enter text.
	Daily power generation capacity (in kWh)	Click here to enter text.
	Number of turbines	Click here to enter text.
	Individual power capacity (MW/turbine)	Click here to enter text.
	Total power capacity (in MW)	Click here to enter text.
	Relevant resources (Please provide a link)	Click here to enter text.
B.3	**Could you please specify the nature of the good practice?**	
	Participatory models in planning and permitting procedures	☐
	Compensation schemes (e.g., energy communities)	☐
	Policies mitigating potential biodiversity risks	☐
	Communication strategies on the benefits of wind farms	☐
	Consultation mechanisms/Consensus building procedures	☐
	Other	☐
	If you chose 'Other' please specify.	Click here to enter text.
B.4	**Could you please identify the legal status of the implementer of the good practice?**	
	Company / Private initiative	☐
	Local / Regional / National authority	☐
	Grassroot initiative / Community	☐
	NGO / Non-profit organisation	☐
	Other	☐
	If you chose 'Other' please specify	

B.5	**Could you please specify which phase of the wind farm project did the good practice concern? (Select all that apply)**	
	Planning (Site selection)	☐
	Permitting	☐
	Construction	☐
	Operation	☐
	Decommissioning	☐
B.6	**Could you provide a short description of the good practice in your own words? (Max. 5 lines)**	
	Click here to enter text.	
C	**ASSESSING IMPACT AND TRANSFERABILITY POTENTIAL OF THE GOOD PRACTICE**	
C.1	**How much has the implementation of the good practice contributed to building consensus and increasing public support for wind farm projects?** **[Please consider all available qualitative and quantitative data. If there aren't any, rate the good practice following you own judgment.]** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly' and 5 is 'Greatly')**	
	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	
C.2	**To what extent has the good practice influenced the overall viability of the wind farm project?** **[Please consider all available qualitative and quantitative data. If there aren't any, rate the good practice following you own judgment.]** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly' and 5 is 'Greatly')**	
	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	
C.3	**Could you evaluate the Good Practice's transferability regarding each of the following aspects?** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly' and 5 is 'Greatly')**	

I.	The ease of adoption (considering time and cost, e.g., delays)				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
II.	The efficacy in dispelling misconceptions				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
III.	The capacity to building consensus and increasing social acceptance				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
IV.	Its applicability to other territories (if the issue it aims to tackle is widely encountered)				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
C.4	**How widespread is the Good Practice?** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly widespread' and 5 is 'Very widespread')**				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
	GOOD PRACTICE 3				
B.1	**Could you please identify the good practice?**				
	Title (Name of reference)		Click here to enter text.		
	Specific location (city, region)		Click here to enter text.		
	Implementer		Click here to enter text.		
	Relevant resources (Please provide a link)		Click here to enter text.		
B.2	**Could you please specify which wind farm project the good practice is associated with?**				
	Name of the wind farm project		Click here to enter text.		
	Location of the wind farm project		Click here to enter text.		
	Type of location of the wind farm project (e.g., onshore, offshore)		Click here to enter text.		

	Daily power generation capacity (in kWh)	Click here to enter text.
	Number of turbines	Click here to enter text.
	Individual power capacity (MW/turbine)	Click here to enter text.
	Total power capacity (in MW)	Click here to enter text.
	Relevant resources (Please provide a link)	Click here to enter text.
B.3	**Could you please specify the nature of the good practice?**	
	Participatory models in planning and permitting procedures	☐
	Compensation schemes (e.g., energy communities)	☐
	Policies mitigating potential biodiversity risks	☐
	Communication strategies on the benefits of wind farms	☐
	Consultation mechanisms/Consensus building procedures	☐
	Other	☐
	If you chose 'Other' please specify.	Click here to enter text.
B.4	**Could you please identify the legal status of the implementer of the good practice?**	
	Company / Private initiative	☐
	Local / Regional / National authority	☐
	Grassroot initiative / Community	☐
	NGO / Non-profit organisation	☐
	Other	☐
	If you chose 'Other' please specify	
B.5	**Could you please specify which phase of the wind farm project did the good practice concern? (Select all that apply)**	

	Planning (Site selection)	☐
	Permitting	☐
	Construction	☐
	Operation	☐
	Decommissioning	☐
B.6	**Could you provide a short description of the good practice in your own words? (Max. 5 lines)**	
	Click here to enter text.	
C	**ASSESSING IMPACT AND TRANSFERABILITY POTENTIAL OF THE GOOD PRACTICE**	
C.1	**How much has the implementation of the good practice contributed to building consensus and increasing public support for wind farm projects?** **[Please consider all available qualitative and quantitative data. If there aren't any, rate the good practice following you own judgment.]** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly' and 5 is 'Greatly')**	
	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	
C.2	**To what extent has the good practice influenced the overall viability of the wind farm project?** **[Please consider all available qualitative and quantitative data. If there aren't any, rate the good practice following you own judgment.]** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly' and 5 is 'Greatly')**	
	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	
C.3	**Could you evaluate the Good Practice's transferability regarding each of the following aspects?** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly' and 5 is 'Greatly')**	
I.	The ease of adoption (considering time and cost, e.g., delays)	
	☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5	

II.	The efficacy in dispelling misconceptions				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
III.	The capacity to building consensus and increasing social acceptance				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
IV.	Its applicability to other territories (if the issue it aims to tackle is widely encountered)				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
C.4	**How widespread is the Good Practice?** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly widespread' and 5 is 'Very widespread)**				
	☐ **1**	☐ **2**	☐ **3**	☐ **4**	☐ **5**
	GOOD PRACTICE 4				
B.1	**Could you please identify the good practice?**				
	Title (Name of reference)		Click here to enter text.		
	Specific location (city, region)		Click here to enter text.		
	Implementer		Click here to enter text.		
	Relevant resources (Please provide a link)		Click here to enter text.		
B.2	**Could you please specify which wind farm project the good practice is associated with?**				
	Name of the wind farm project		Click here to enter text.		
	Location of the wind farm project		Click here to enter text.		
	Type of location of the wind farm project (e.g., onshore, offshore)		Click here to enter text.		
	Daily power generation capacity (in kWh)		Click here to enter text.		
	Number of turbines		Click here to enter text.		

	Individual power capacity (MW/turbine)	Click here to enter text.
	Total power capacity (in MW)	Click here to enter text.
	Relevant resources (Please provide a link)	Click here to enter text.
B.3	**Could you please specify the nature of the good practice?**	
	Participatory models in planning and permitting procedures	☐
	Compensation schemes (e.g., energy communities)	☐
	Policies mitigating potential biodiversity risks	☐
	Communication strategies on the benefits of wind farms	☐
	Consultation mechanisms/Consensus building procedures	☐
	Other	☐
	If you chose 'Other' please specify.	Click here to enter text.
B.4	**Could you please identify the legal status of the implementer of the good practice?**	
	Company / Private initiative	☐
	Local / Regional / National authority	☐
	Grassroot initiative / Community	☐
	NGO / Non-profit organisation	☐
	Other	☐
	If you chose 'Other' please specify	
B.5	**Could you please specify which phase of the wind farm project did the good practice concern? (Select all that apply)**	
	Planning (Site selection)	☐
	Permitting	☐

	Construction	☐
	Operation	☐
	Decommissioning	☐
B.6	**Could you provide a short description of the good practice in your own words? (Max. 5 lines)**	
	Click here to enter text.	
C	**ASSESSING IMPACT AND TRANSFERABILITY POTENTIAL OF THE GOOD PRACTICE**	
C.1	**How much has the implementation of the good practice contributed to building consensus and increasing public support for wind farm projects?** **[Please consider all available qualitative and quantitative data. If there aren't any, rate the good practice following you own judgment.]** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly' and 5 is 'Greatly')**	
	☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5**	
C.2	**To what extent has the good practice influenced the overall viability of the wind farm project?** **[Please consider all available qualitative and quantitative data. If there aren't any, rate the good practice following you own judgment.]** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly' and 5 is 'Greatly')**	
	☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5**	
C.3	**Could you evaluate the Good Practice's transferability regarding each of the following aspects?** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly' and 5 is 'Greatly')**	
I.	The ease of adoption (considering time and cost, e.g., delays)	
	☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5**	
II.	The efficacy in dispelling misconceptions	
	☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5**	

III.	The capacity to building consensus and increasing social acceptance
	☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5**
IV.	Its applicability to other territories (if the issue it aims to tackle is widely encountered)
	☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5**
C.4	**How widespread is the Good Practice?** **(Please rate on a scale of 1 to 5, where 1 is 'Slightly widespread' and 5 is 'Very widespread')**
	☐ **1** ☐ **2** ☐ **3** ☐ **4** ☐ **5**

Annex II: Compilation of Good practices

#	Title	Type	Implementer	Implementer type	Wind farm location	Wind farm type	Phase	Resources	Overall Assessment score (%)
1	Open participation offer to local investment while developing the Aeolic project – Spain	Other – Regional law	Enel Green Power S.p.A.	Company/ Private initiative; Local/ Regional/ National authority	La Jonquera, Agullana, Capmany, Biure, Pont de Molins, Llers, Vilafant y Figueres (Cataluña) – Spain	Onshore	Permitting	Resource 1, Resource 2	63%
2	Collaborative agreements for community benefits and revenue sharing in communal land use for wind farms – Allande, Asturias	Participatory models in planning and permitting procedures	EDP	Company/ Private initiative	Allande, Asturias – Spain	Onshore	Planning (Site selection); Operation	Resource	74%
3	Preserving cultural heritage in the permitting phase of wind farms - Burgos, Spain	Other – Measures for preserving and restoring Galician traditional architecture	Municipality of Rabe de las Calzadas	Local/ Regional/ National authority	The municipalities of Albillos, Arcos de la Llana, Buniel, Cavia, Cayuela, Villalbilla de Burgos, Villagonzalo Pedernales and Estépar, Province of Burgos - Spain	Onshore	Permitting	Resource	43%
4	Specific Annex on Environmental Integration in the project's construction – Parque Eólico Campillo de Altobuey, Spain	Policies mitigating potential biodiversity risks	Energía Eólica Galerna, S.L.U.	Company/ Private initiative	Campillo de Altobuey (Enguidanos); Puebla del Salvador (Cuenca) – Spain	Onshore	Planning (Site selection); Permitting; Construction; Operation; Decommissioning	Resource 1, Resource 2	100%
5	Collaborative wind farm development on communal lands – Neighbourhood Mountain Community of Zobra, Spain	Compensation schemes (e.g., energy communities)	Iberdrola Energía Renovables Internacional, S.A.	Company/ Private initiative; Other	Zobra (Lalín), Galicia – Spain	Onshore	Permitting; Operation	Resource	89%
6	Effective stakeholder engagement and community support strategies in wind farm development – Poland	Policies mitigating biodiversity risks; Communication strategies on the benefits of wind farms;	OX2	Company/ Private initiative	Lublin region, Poland	Onshore	Planning (Site selection); Permitting; Construction	Resource 1, Resource 2	97%

#	Title	Type	Implementer	Implementer type	Wind farm location	Wind farm type	Phase	Resources	Overall Assessment score (%)
		Consultation mechanisms/ Consensus building procedures							
7	Enhancing regional economic development through local investment and support by wind farm investors – Poland	Compensation schemes (e.g., energy communities)	Elawan	Company/ Private initiative	Szerzawy, Pawłów Commune, Świętokrzyskie Voivodeship, Poland	Onshore	Construction; Operation	Resource 1, Resource 2, Resource 3 (p. 8)	86%
8	Local residents as virtual prosumers of renewable energy – Policy paper, Poland	Compensation schemes (e.g., energy communities); *Other: This pertains to the amendment of the Act on Wind Farm Investments and Certain Other Acts introduced on 9 March 2023, which mandates local authorities to consult with the public and local communities before initiating a wind farm project.*	Government of Poland	Local/ Regional/ National authority	Applicable to all wind farms in Poland	Onshore and Offshore	Operation	Resource 1, Resource 2, Resource 3, Resource 4	49%
9	"Choczewo Municipality Powered by Wind" program for investors of offshore wind farms to support local initiatives – Poland	Compensation schemes (e.g., energy communities)	Choczewo Municipality; Baltic Power (PKN ORLEN and Northland Power); Ocean Winds; PGE Baltica and Ørsted	Local/ Regional/ National authority; Company/ Private initiative; Grassroot initiative/ Community	Choczewo - Poland	Offshore	Planning (Site selection); Permitting	Resource 1 (pp. 20-21), Resource 2	71%
10	Building positive relationships and fostering community engagement and mutual benefits in wind farm projects – Poland	Communication strategies on the benefits of wind farms;	Green Power Development	Company/ Private initiative	Towns and villages in Bogoria Commune (Malkowice, Ceber,	Onshore	Planning (Site selection); Permitting	Resource 1, Resource 2, Resource 3, Resource 4,	80%

#	Title	Type	Implementer	Implementer type	Wind farm location	Wind farm type	Phase	Resources	Overall Assessment score (%)
		Consultation mechanisms/ Consensus building procedures			Gorzków, Przyborowice, Szczeglice, Wysoki Duże, Pęcławice Górne, Witowice) – Poland			Resource 5	
11	Bird collision avoidance system and thermal simulator for wind farms in Greece	Policies mitigating potential biodiversity risks	*Not specified*	Local/ Regional/ National authority	Florina, Varnountas mountain – Greece	Onshore	Operation	Resource	71%
12	Sensitive area mapping for wind farm construction in Thrace, Greece	Policies mitigating potential biodiversity risks	WWF	NGO/ Non-profit organisation	Thrace – Greece	Onshore	Planning (Site selection)	Resource	63%
13	Innovative system to prevent birds from colliding with wind turbines – Digisec, Greek startup	Policies mitigating potential biodiversity risks	Digisec	Company/ Private initiative – Greek Startup	Evros and Florina – Greece/ Taranto – Italy	Onshore and Offshore	Operation	Resource 1, Resource 2, Resource 3	71%
14	Citizen participation through green energy cooperatives – Wind farm projects in Eeklo, Belgium	Participatory models; Compensation schemes (e.g., energy communities); Communication strategies on the benefits of wind farms; Consultation mechanisms/ Consensus building procedures; Other	Ecopower; City of Eeklo	Company/ Private initiative; Local/ Regional/ National authority	Eeklo, Province of East-Flanders – Belgium	Onshore	Planning (Site selection); Permitting; Construction; Operation	Resource 1, Resource 2, Resource 3	89%
15	Engaging residents in consultations and energy communities – Wind park in Mollem, Belgium	Participatory models; Communication strategies on the benefits of wind farms; Consultation mechanisms/ Consensus building procedures;	Storm	Company/ Private initiative	Asse, Province of Flemish Brabant – Belgium	Onshore	Planning (Site selection); Permitting	Resource 1, Resource 2	80%

#	Title	Type	Implementer	Implementer type	Wind farm location	Wind farm type	Phase	Resources	Overall Assessment score (%)
		Compensation schemes (e.g., energy communities); Other							
16	Community-engaged and environmentally compliant wind turbine project – Wind project E40 Deinze, Belgium	Participatory models; Compensation schemes (e.g., energy communities); Policies mitigating biodiversity risks; Communication strategies on the benefits of wind farms; Consultation mechanisms/ Consensus building procedures	Energy company (Storm) and Citizens' cooperation (Energent)	Company/ Private initiative; Other	Deinze, Oost-Vlaanderen – Belgium	Onshore	Planning (Site selection); Permitting	Resource	74%
17	Enhancing community trust and engagement in wind farm projects through evidence-based health impact studies – Finland	Consultation mechanisms/ Consensus building procedures	THL: Finnish Institute for Health and Welfare	Local/ Regional/ National authority	Nine wind energy areas, including Kauhajoki, South Ostrobothnia – Finland	Onshore	Permitting; Operation	Resource 1, Resource 2	54%
18	Public engagement in revising regional land use plans for wind farm construction – Finland	Participatory models in planning and permitting procedures	All 19 Regional Councils in Finland	Local/ Regional/ National authority	Applicable to all wind farms in Finland	Onshore	Permitting	Resource 1, Resource 2	89%
19	Bird radar protection system for endangered birds at offshore wind farm – Tahkoluoto, Finland	Policies mitigating potential biodiversity risks	Suomen Hyötytuuli Oy	Company/ Private initiative; Other	Tahkoluoto, Finland	Offshore	Operation	Resource	83%
20	Participative approach in wind farm permitting process – Suolakangas wind farm, Finland	Participatory models in planning and permitting procedures	The city of Kauhajoki	Local/ Regional/ National authority	Kauhajoki, South Ostrobothnia – Finland	Onshore	Planning (Site selection); Permitting	Resource	89%
21	Empowering wind farm communities through Community Benefit Funds – Sliabh Bawn wind farm, Ireland	Compensation schemes (e.g., energy communities)	Sliabh Bawn Power DAC, Coillte, Greencoat Renewables	Local/ Regional/ National authority; Company/ Private initiative;	Sliabh Bawn Mountain, Strokestown, County Roscommon – Ireland	Onshore and Offshore	Operation	Resource 1, Resource 2, Resource 3	66%

#	Title	Type	Implementer	Implementer type	Wind farm location	Wind farm type	Phase	Resources	Overall Assessment score (%)
			and Bord Na Mona	Other					
22	Benefits from wind farms installation – Public wind farm in Kulcs, Hungary	Participatory models; Compensation schemes (e.g., energy communities); Policies mitigating biodiversity risks; Communication strategies on the benefits of wind farms; Consultation mechanisms/ Consensus building procedures	EMSZET First Hungarian Wind Power Plant Ltd.	Company/ Private initiative; Local/ Regional/ National authority	Kulcs – Hungary	Onshore	Planning (Site selection); Permitting	Resource	66%
23	Engaging Communities through public consultation events for the cross-border offshore wind project ELWIND – Latvia/ Estonia	Policies mitigating potential biodiversity risks	Investment and Development Agency of Latvia	Local/ Regional/ National authority	Latvia/ Estonia	Offshore	Operation	Resource 1, Resource 2	77%