

# SECURING LOCAL SUPPORT FOR AIRBORNE WIND ENERGY PROJECTS

## A GUIDE FOR PROJECT DEVELOPERS

Airborne Wind Europe



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Quote as: *Airborne Wind Europe 2025, Securing local support for Airborne Wind Energy Projects – a guide for project developers.*

Airborne Wind Europe

A blue silhouette map of Europe is shown. A black location pin is placed in the northeastern part of Europe, specifically over Germany. A speech bubble points from the pin to the text below.

WIND LAB 3: PARTICIPATORY PRACTICES FOR  
AIRBORNE WIND ENERGY IN THE BRANDENBURG  
REGION OF GERMANY

## ABOUT JUSTWIND4ALL

**JustWind4All** is a research project that supports the acceleration of on- and offshore wind energy, including emerging wind technologies like airborne and floating, through just and effective governance.

By integrating insights from different academic disciplines and societal perspectives, we support synergies and exchange among people and organisations to coordinate and participate in actions around wind energy



# ENSURING COMMUNITY ENGAGEMENT IN AIRBORNE WIND ENERGY (AWE) PROJECTS

Authors: Kristian Petrick, Gosia Matowska, Stefanie Thoms, Helena Schmidt

## ABOUT

Wind Lab 3 is about co-producing, testing and promoting participatory practices for airborne wind energy (AWE). As more AWE projects are being implemented, it is important for the sector to ensure a high level of social acceptance from the very beginning.

## KEY TOPICS

- Applying best practices of community engagement to the nascent Airborne Wind Energy (AWE) sector
- Ensuring that AWE project developers are well aware of the importance of local social acceptance
- Understanding the specific challenges of AWE, notably the lack of widespread experience about the technology

## GUIDELINES

### TREAT COMMUNITY ENGAGEMENT LIKE PERMITTING OR ENGINEERING—IT'S A CORE PROJECT DISCIPLINE

Budget for staff time, events, consultants, and communications, even if this may be challenging for AWE companies.

### ENGAGE EARLY WITH COMMUNITIES

Initiate communication during the feasibility and site selection phase – before securing permits. Early outreach builds trust and gives developers insight into local concerns before decisions are finalised.

### ENSURE TRANSPARENCY THROUGHOUT THE PROJECT

Provide clear, honest information about safety, environmental impact, timelines, and system limitations. Transparency is critical – especially for a new technology like Airborne Wind Energy where public knowledge is still developing.

### ADAPT ENGAGEMENT TO THE LOCAL CONTEXT

Tailor outreach to reflect local identity, land use values, and concerns. Explain the potential advantages of AWE, such as lower noise, minimal visual impact, and a small land footprint, in terms that resonate locally.

### OFFER LOCAL BENEFITS

Consider options such as job creation, community investment, or educational partnerships. Demonstrating clear local value can significantly increase acceptance. However, do not overpromise or exaggerate local benefits.

### MAINTAIN ONGOING COMMUNICATION AND RESPONSIVENESS

Keep communities informed during construction and operation. Address emerging issues quickly and maintain open, two-way communication channels.

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# 1 Introduction

## 1.1 Background

### Airborne Wind Energy

Airborne Wind Energy (AWE) is an innovative renewable energy technology that uses tethered kites or drones to harness wind energy at altitudes up to 800m with very low material input. Airborne Wind Europe is the association representing the Airborne Wind Energy (AWE) sector in Europe. Its members are technology and project developers, universities, research institutes and suppliers from Germany, France, Italy the Netherlands, Norway, Spain, France and other European countries.

Airborne Wind Europe is the association representing the AWE sector in Europe.



*Airborne Wind Energy Systems. Source: Airborne Wind Europe members*

### Research basis and co-creation activities

This guide has been developed by Airborne Wind Europe within the Horizon Europe project JustWind4All. It builds on the outcomes of several co-production activities around the future EnerKite test site in Ketzin (Brandenburg, Germany, see Box “Events organised for Ketzin project”). These activities involved AWE companies, regional and local authorities, NGOs, nature conservation groups and citizens.

The guide refers extensively to three recent key publications by Helena Schmidt (TU Delft) and colleagues, which provide the first methodologically sound research on the social acceptance of AWE:

- Schmidt et al. (2022): Literature review of The Social Acceptance of Airborne Wind Energy: A Literature Review.
- Schmidt et al. (2024): How do residents perceive energy-producing kites? Comparing the community acceptance of an airborne wind energy system and a wind farm in Germany
- Schmidt et al. (2025): Exploring Noise Annoyance and Sound Quality for Airborne Wind Energy Systems: Insights from a Listening Experiment.

Furthermore, findings and recommendations from other literature, interviews and conversations with experts on social acceptance and project development (see acknowledgements) over the timeframe of three years have gone into this guide.

## The term “social acceptance”

The term social acceptance refers to *“a complex and dynamic process involving all relevant actors and their positions across three inter-related dimensions: the socio-political, the community, and the market level. [...] Socio-political acceptance refers to the acceptance of the technology and related policies by the general public, policymakers, and other key stakeholders. In contrast, community acceptance describes the degree to which particular siting decisions and energy projects are accepted, especially by residents and local authorities.”* (Schmidt et al., 2022).

The focus of this Energy Read is on local communities and residents that may be affected more directly from an AWE installation; nevertheless, the wider public and citizens are also considered regarding certain, more general aspects. While “social acceptance” may not be the ideal term – as it could be perceived as trying to convince someone to accept a certain technology – it is widely used in literature and projects.

## 1.2 Scope and Objective

**The aim of this guide is to provide a practical framework for stakeholder engagement in AWE projects, explaining why it is essential, how it can be done just and effectively, and what has been achieved so far.** By combining insights from mature wind energy projects and early experiences in the AWE field, we hope to support project developers, communities and policymakers in building trust and fostering acceptance for this emerging technology.

**AWE’s successful deployment depends not only on technical feasibility and cost competitiveness but also on social acceptance.** AWE is a rising innovative renewable energy technology (iRET). However, even projects that are economically and environmentally sound can face significant delays or even cancellation if they encounter strong community and anti-wind opposition. For developers, integrating social acceptance considerations from the outset is not just advisable, it is essential to the viability of their projects.

**There is ample experience with social acceptance of wind energy projects which this guide is building on.** However, considering that AWE technology is still largely unfamiliar to the general public and only a few projects have been implemented to date, further research is needed to understand how best to engage communities. There is a unique window of opportunity for the AWE sector over the next years to positively shape the image and perception that the public and local communities will have of AWE.

**This guide shall be seen as living document.** It is expected that more insights on the social acceptance of AWE will become available over the next years as the technology matures and

more projects will be implemented. In 1-2 years, the guide and its recommendations may be reviewed and updated.

**The following section 2 explains the key factors that have been identified to have an impact on acceptance of the AWE technology itself** and provides recommendations mainly for AWE technology developers (Original Equipment Manufacturers – OEMs) and researchers. However, some insights are also relevant for project developers.

**Section 3 will then focus on the different stages of project development** thus providing mainly recommendations for AWE project developers.



*EnerKite in Brandenburg, Germany. Source: EnerKite*

## 2 AWE technology: Understanding perceptions

**Although AWE is a relatively new technology, a growing number of studies are discussing how it is perceived by the public.** In a comprehensive review, Schmidt and colleagues (2022) identified six key factors proposed by the AWE literature to influence social acceptance: safety, visual impact, noise, location, ecological effects and overall attitudes and perceptions. These factors are primarily related to the AWE technology, not necessarily to the project development stages.



### 2.1 Safety

**Safety concerns about AWE systems depend on the type of system and how it operates.**

Several studies in the reviewed literature assumed that people *might* be concerned about the safety of these systems, and that such concerns could vary based on the specific technology used. One publication (Paulig, 2013) suggested that *soft-wing kites* may be perceived as safer than *fixed-wing* or *hybrid-wing* designs because they are made from lighter materials.<sup>1</sup> Another study (Abbate, 2019) noted that the method of electricity generation could influence perceptions of safety. In particular, *fly-gen* systems, which generate electricity in the air, might raise concerns about moving electric cables overhead. An additional paper (Paulig, 2013) assumed that AWE systems could be regarded as a potential threat to conventional aviation, especially by pilots and aviation authorities.

**Despite these assumptions, actual public concern about AWE safety appears to be relatively low.** One publication (Schmidt et al. 2024) contains the most in-depth social acceptance analysis of an AWE deployment site, discussing in detail the results from a survey conducted with residents living within 5km of SkySails' AWE test site in Klixbüll (Schleswig-Holstein, Germany). The study found that participants only perceived minimal safety risks associated with AWE, and their concerns about the local AWE site were not stronger than for local conventional wind farms. Safety concerns did not relate to people's attitudes towards the local AWE project. In contrast, individuals who expressed higher levels of concern about the safety of traditional wind farms tended to be more negative towards nearby wind turbines. However, people who had more concerns about AWE safety in general were less supportive of the technology overall.

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<sup>1</sup> Soft-wing kites use flexible fabric and look like large kitesurfing kites or paragliders. Fixed-wing kites have (semi-)rigid wings and can look similar to glider airplanes or drones. For more information, see <https://airbornewindeurope.org/our-technology-2>



**The publication further revealed that specific safety concerns about AWE systems relate to both the risk of technical failures and the possibility of causing accidents or disruptions in the surrounding area.** Some individuals were worried about the possibility of the tether snapping, which could cause the kite to crash or drift away. Others feared that the kite could collide with an aircraft, particularly given that the system in Klixbüll was located close to a local emergency helicopter operation. It was notable that many people were unaware of existing safety measures, such as the establishment of a *no-fly zone* around the system and safety arrangements such as strict coordination procedures with the helicopter service operator. Concerns were also raised about potential *ground-level* incidents. There were fears that the kite could distract drivers, either by drawing attention away from the road or by causing people to slow down suddenly, which could increase the risk of accidents. It was also mentioned that AWE systems might be more dangerous in densely populated areas. While *safety buffer zones* around the systems were generally appreciated, frustration was expressed over access roads being blocked during certain periods of operation.

**Finally, findings across several studies (Salma, 2019) highlight the value of communication and safety protocols for social acceptance.** Most participants viewed AWE systems as comparable in safety to conventional wind turbines, although this perception may be influenced by limited technical understanding – there are risks stemming from flying, tethered objects but these risks can be largely minimised and mitigated. These insights underline the importance of communication with the local community and wider public so that they are fully informed and aware about the various, specific safety measures that are being taken AWE companies. In the case of SkySails in Klixbüll, all of the proposed measures listed below were implemented. However, the fact that respondents were unaware of this meant that their concerns could not be alleviated, despite full compliance with all safety measures. Further communication with the community – which took place after the study – intended to address these concerns.

### Recommendations:

- **Give safety for staff and people highest priority.**
  - Define, apply and constantly review safety procedures
  - Ensure strict compliance with aviation and energy sector standards
- **Adhere to the Key Safety Principles for operation of experimental and developmental AWE systems** that were established by the AWE sector in 2020 and signed by the AWE developers (AWEU, 2020). The aim is to minimise the risk of a

hazardous or catastrophic incident by reducing the probability and the consequence of such an incident<sup>2</sup>. These principles include:

- Safety culture: Appropriate rigour in all phases of design, production, test and operation.
- Avoiding harm and damage of test personnel, visitors, third parties and property.
- Avoiding collisions in airspace.
- Safe and approved testing under the existing weather conditions.
- Qualified test personnel and rigorous testing procedure.
- Incident handling and Emergency Response Plan (ERP).
- Continuous improvement to individually and collectively learn from any hazardous or catastrophic incidents.
- **Proactively address safety concerns early in the project**
  - Anticipate and respond to concerns like tether failure, ground-level distractions etc. Explain how these safety measures were designed to prevent these risks.
  - Talk to safety relevant stakeholders. For example, at their Klixbüll site, SkySails reached out to regional aviation clubs and airports, Helicopter Emergency Medical Services (HEMS) and the military.
  - Establish and clearly explain buffer zones and no-fly areas.
- **Minimize ground risk:**
  - Put up signs and potentially fences. For example, the access road to the Kitepower test site in Bangor Erris has a gate. The bog can still be crossed by foot, but signs have been put up alerting about the involved risk.
  - Install camera surveillance of the area below the kite, potentially automatically grounding the kite when persons are detected, e.g. Kitekraft has installed such a system when testing on their sites in Bavaria.
- **Communicate and explain safety measures taken** and respond to questions and concerns, e.g. on the project website, specific posts, or in meetings and at events with the local community.

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<sup>2</sup> Catastrophic incidents are incidents that could result in one or more fatalities. Hazardous incidents are incidents with one failure away from catastrophic incident or that could result in third party human harm.



## 2.2 Visual Impacts

**AWE systems are generally perceived as less visually intrusive than traditional wind turbines, but this claim has only been supported yet by limited empirical data.** Across the AWE literature (Alonso-Pardo, 2015), it is assumed that AWES tend to be less visually noticeable than conventional wind turbines. This is mostly because they operate at higher altitudes, often flying well above other structures like wind turbines or transmission lines. Some studies (Roberts, 2007) suggest that this low visibility can help reduce public concern. One publication (Bosch, 2014) even proposed that the subtle presence of AWES could make them better suited for use in places where preserving the natural landscape is important, such as ecologically sensitive zones or tourist areas.

**However, so far only one study (Schmidt et al., 2024) offers methodological sound insights into the aspects of AWES visibility perceptions at a concrete location.** The results showed that wind farms were much more noticeable in the landscape compared to AWES. Among participants who could see the AWES from home, over 70% said they only noticed it when the kite was flying, suggesting that the system is mostly hidden when not in use. However, depending on the location, the ground station (often including several shipping containers) may be visible from far away even when the kite is grounded and should thus be considered in impact assessments (Alonso-Pardo, 2015).

**The concept of *project-place fit* helps explain how communities respond to visual changes in their environment.** One social scientist (Batel, 2021) argues that understanding people's reactions to the visual presence of renewable energy technologies requires looking beyond just their size, shape, or colour. People's emotional connection to a place, its meaning, culture and history can strongly shape whether they accept or reject a project in their area. Moreover, perceptions of visual impact are not solely based on what is physically present, they are also influenced by personal and cultural factors, including expectations about how the landscape should look and the significance individuals or communities attach to it. For example, if a community views the countryside as a peaceful, natural retreat, they might resist energy developments more strongly than communities that see the same area as a working landscape used for farming or industry.

**Public responses to the visual presence of kites vary and are often linked to personal associations.** Interestingly, some respondents associated the kite with positive or nostalgic feelings such as kite-flying, sailing, kitesurfing, or being at the beach (Schmidt et al. 2024). Watching the kite in motion was playful, gentle and even calming, especially when compared to the mechanical look of nearby wind turbines. On the other hand, a few people said the

kite's movement made them feel uneasy or was harder to get used to than the steady presence of traditional turbines. In one JW4A workshop with key stakeholders in Ketzin, the faster movements of a semi-rigid fixed-wing kite were described as *hectic*, suggesting that larger or more dynamic kites may provoke different reactions. These differing responses underline the importance of understanding the local context and AWE-system-specific perceptions when developing AWE projects.

### Recommendations:

- **Consider both airborne and ground-level visual impacts.** This means to include also ground stations in the visual assessments and visualisation, and to clearly communicate to local communities what elements will be visible and when.
- **Conduct tests on how people react to the kite movements** and potentially adjust trajectories or patterns (maybe only during certain times). However, this will have technical limitations and likely reduces efficiency.
- **Investigate how different AWE designs and colours influence acceptance** and develop regulation accordingly (a white kite with red edges may be more attractive than white and red stripes – or vice-versa). While companies have to adhere to current regulation (e.g., ICAO Annex 14 for obstacles), studies on this subject may influence future regulation, potentially leading to higher acceptance without compromising safety.
- **Use visualisation techniques during planning processes,** potentially apply Virtual Reality Animation [SkySails used Virtual Reality headsets at the WindEnergy Hamburg fair in 2024; the GrowFlowFly project developed a tool to show how kites may look in a given landscape (GrowFlowFly, 2023)].
- **Discuss ideally with a larger group of members of the local community how they see their environment** (e.g., natural retreat vs. working landscape) and evaluate together how this influences the perception of the project.
- **Be honest when comparing visual impacts of AWE with wind turbines.** Current wind turbines generate at least one order of magnitude more energy than AWE systems. For a comparable output, more AWE systems would have to be installed, then leading also to higher visual impacts. So, in the end, the benefits of both technologies depend on the actual site and use case.





## 2.3 Sound emissions

**Airborne Wind Energy Systems produce sound emissions** primarily from a combination of mechanical and aerodynamic sources, including the kites, onboard turbines (for electricity generation), tethers, and the ground station. In general, one can say that research on AWE sound emissions is still at a very early stage and, similar to the development of conventional wind power, significant progress can be expected.

**Preliminary findings suggest that AWES may generate lower sound emissions than conventional wind turbines but further empirical evidence is needed.** In the literature review by Schmidt and colleagues (2022), it was observed that, similar to the visibility of AWE systems, many sources anticipate that AWE will produce less noise than traditional turbines. Some studies concluded that these reduced noise levels could have a positive effect on the social acceptance of AWE technologies. These assumptions are supported by recent empirical findings (Schmidt et al., 2024): in a field study comparing public responses to a conventional wind farm and an AWE system, a smaller proportion of residents reported hearing the AWES at home (35.2%) compared to the wind farm (48.1%). However, more studies at different sites for different kite systems need to be carried out to validate these first findings.

**However, a lab study (Schmidt et al., 2025) revealed that the sound of different types of kites is perceived differently.** The study investigated how sound quality metrics (SQMs) relate to noise annoyance in AWES through a controlled listening experiment. *Sharpness* was the only significant predictor of annoyance. Fixed-wing systems were considered as more annoying than soft-wing kites, due to their sharper, more tonal sound profiles. Although soft-wing kites had higher loudness, their *less tonal* sound made them less irritating.

**Social factors such as fairness and community involvement shape noise perceptions.** Research on traditional wind energy (Pohl, 2018) suggests that factors such as sound pressure levels (expressed in dB) and distance to the installation play only a limited role in how residents perceive noise. Findings (Health Canada, 2014) also show that when residents are financially involved in a local wind project, they tend to report lower levels of noise annoyance and related stress. What is particularly interesting in the recent study by Schmidt et al., (2024) is that people living near the AWES who felt the planning process was fair and that the developers were open and honest were less bothered by the noise. This suggests that how the project is communicated and to what extent residents are involved in the planning process can significantly influence how people perceive the project.

## Recommendations:

- **Ensure to stay below the sound pressure levels to meet legal immission requirements** at a given site. This is not only a prerequisite to get a permit but also to engage in a constructive dialogue with the local community on the remaining noise level and perceptions.
- **Expand focus to psychoacoustics** to fully understand the sound characteristics of the specific kite system.
- **Conduct sound studies and tests** in scientifically sound, reproduceable settings for various AWE concepts and prototypes. Schmidt and colleagues (2025) suggest:
  - Identify the stages in the AWE flight cycle that cause most annoyance and develop mitigation measures.
  - Conduct field studies that consider background noise, visual exposure, and long-term sound patterns.
  - Examine how extended exposure and repeated noise events may cause sleep disturbances and stress.
  - Engage a broader range of demographic groups, particularly those living near current or proposed AWES installations, to ensure that findings are representative of affected populations.
  - Develop noise prediction models specifically tailored to AWES that incorporate dynamic operational characteristics, such as variations in speed, altitude and trajectory which can be tailored to site-specific conditions, balancing energy output with psychoacoustic considerations.
- **Take early on measures** (i.e. already during the prototype development) to reduce sound emissions, focusing especially on “annoying” sounds (e.g. reduce number of bridles, change flight speed or pattern, improve aerodynamics, insulate ground station, ...).
- **Include the long-term monitoring of residents’ perceptions** close to AWE sites with analyses of sound parameters, amplitude modulation, stress effects, and situational conditions to untangle various sources of annoyance and symptoms
- **Consider subjective factors** such as the perceived fairness of the participation process and residents’ attitudes towards the local AWE site.
- **Involve communities proactively** early in the planning process, using data to communicate potential impacts and suggest mitigation strategies transparently.
- **Choose locations carefully and account for contextual sensitivities.** Avoid placing systems too close to residential areas where sound could be more noticeable or undesirable.



## 2.4 Ecological Effects

**Collisions with birds as well as broader wildlife disturbances are considered the main ecological risks associated with AWES although current evidence is limited.** Compared to traditional wind turbines, AWE is generally expected to pose a lower threat to birds (Bronstein, 2011). A common explanation is that the kite operates at higher altitudes, beyond the typical flying range of most bird species, except during take-off and landing, and kites travel in general at lower speeds than wind turbine tips<sup>3</sup>. However, moving tethers present their own risks and might be difficult for birds to detect and avoid. Due to the small number of AWE operations, which are often also limited in time, there is still not many data available. So far, only one peer-reviewed study (Bruinzeel, 2018) has provided quantitative estimates on bird collisions involving AWE based on a modelling approach, suggesting a comparable number of bird fatalities as for wind turbines (5-15 per year). However, the study acknowledges that the model used needs to be validated *“considering that evidence suggest that birds can survive an encounter with the tether”*.

**Public perceptions of environmental impact may significantly influence support for AWE projects.** In the empirical survey by Schmidt and colleagues (2024), on average, respondents described the environmental impact of AWES on nature and wildlife conservation as neutral. Interestingly, for both AWES and conventional wind farms, participants who believed the local project had a more positive impact on nature were also more likely to have a favourable view of the project overall. In the JustWind4All workshops, certain participants did raise concerns on the impact on birds, asking for more evidence. This suggests that perceptions of environmental benefit or harm may shape public attitudes toward AWE developments. Exploring the role of wildlife protection in shaping people's attitudes toward this technology could be an important area for future research.

**Further research on the real ecological impacts on AWE is needed so that targeted mitigation strategies can be developed. It must be clearly understood how and to which extent AWE affects wildlife.** Effective strategies to minimise harm to wildlife may then include adjusting the design of AWE systems, applying specific measures during different project phases or seasons, or introducing mitigation measures like not flying in protective *buffer zones* around sensitive species during breeding seasons, along with continuous monitoring and maintenance protocols.

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<sup>3</sup> Soft kites fly at 70-90 km/h, fixed-wing systems up to some 120 km/h; wind turbine tips reach 200 km/h and even up to 300 km/h.

**Recommendations:**

- **Comply with and ideally exceed Environmental Impact Assessment (EIA) requirements.** For example, commission professional bird monitoring services including retrieval and counting of dead birds even if this may not be required for each project. Also train on-site staff on how to detect bird collisions and to deal with injured or killed birds.
- **Carry out tests approved and strictly supervised by ornithologists in bird-affluent areas** to study how birds react to AWES. This was suggested in the JustWind4All workshop on environmental impacts by bird and environmental experts (see Box “Events organised for Ketzin project”) acknowledging the unique advantage of AWE systems that they can be quickly set up and removed again. These tests should be limited in time, making use of the unique benefit of AWE systems that they can be set up and decommissioned quickly.
- **Share information and reports to increase the knowledge and basis for evidence** (see compilation of publicly available reports on the AWEU website (AWEU, 2023)). For example, if several projects can prove that all type of kite systems do not have any considerable impact on bats, future projects may be exempt from carrying out bat-specific impact assessments, at least for sites that are not specific bat habitats.





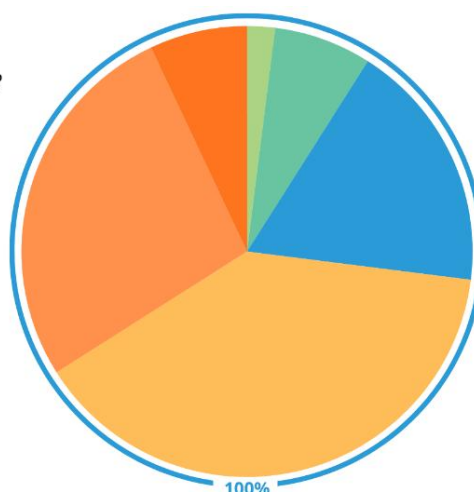
## 2.5 Attitudes and Perceptions

**Overall, the public is not widely aware of AWE yet.** In 2023 and 2024, a question on AWE was included in the annual survey on social acceptance of renewable energies conducted by the German Renewable Energy Agency (AEE). The results were very similar in both years, and they confirmed what Airborne Wind Europe experiences at events, fairs, conferences and webinars: Not even a third of the people are aware of AWE (see **Error! Reference source not found.**). But about 40% of the people express interest even though they have never heard about the technology, showing that the first perception is largely positive.

### Airborne Wind Energy Systems

*Have you already heard about this technology?*

- "Yes, I follow the development closely" 2%
- "Yes, I have seen publications/posts/videos or..."
- "Yes, I have heard a little bit about it." 18%
- "No, but it seems to be interesting to me." 39%
- "No, and it also does not interest me." 27%
- Don't know / no answer. 7%



Awareness about and interest in AWE in Germany ([AEE, 2024](#))

**Public attitudes toward AWE reflect a mix of excitement, caution, and curiosity.** In the empirical study by Schmidt and colleagues (2024), qualitative responses provided further insight into these attitudes. Those who held somewhat to very positive views of the local AWES tended to see the technology as *innovative, unique, and promising*. They highlighted its renewable nature and its potential to reduce reliance on nuclear power and fossil fuels, often noting its relatively low impact on people and the environment compared to existing energy technologies.

**On the other hand, those with neutral to negative views were more sceptical.** They saw the AWE system primarily as a test or experimental project, with some even dismissing it as play. They doubted its potential contribution to the broader energy transition. Interestingly, even among supporters, there was some uncertainty about the actual energy output and effectiveness of the technology. This underlines the importance of evidence-based communication and real-world performance data to build credibility and informed support. In addition, certain blog posts (Kenward, 2014) and articles exhibit strong negative opinions about AWE.

## Recommendations:

- **Seeing is believing – people are attracted to tangible products.** This is why inviting visitors to test sites – as being done by most AWE companies – is so important. The more sites are available, the easier it will become for people to experience AWE systems first hand. Exposing kites at fairs, the AWEC (like at the AWEC 2024 in Madrid), or even in front of the European Parliament in May 2025, are important to get media coverage.
- **Share performance data and information on achievements in AWE development.** People do understand that a new technology cannot provide top performance from the very beginning. But sharing data, being transparent on existing challenges and gaps, and providing realistic timelines to overcome them will create trust in the technology and the sector.
- **Educate about AWE's capacity to complement existing renewable technologies,** meet energy transition targets, increase energy security and contribute to a new industry in Europe. As studies have shown the large potential of AWE, it is important to communicate the mid- and long-term opportunities and potentials that the sector can offer.



## 2.6 Site Location

**The location of AWE systems may also be linked to public perception and acceptance of the technology.** Some authors suggested that social acceptance can directly influence how many systems are placed in a given area. If a community is supportive, for example, more space might be made available for installations (Malz, 2020).

**However, this view may oversimplify things.** Even though wind energy generally enjoys broad public support, individual communities can still oppose a local project, especially if they feel left out of the decision-making process or that it was not handled fairly (Bell, 2005). Issues like fairness, transparency and how the local community is involved, often make a big difference in whether a project is welcomed or resisted.

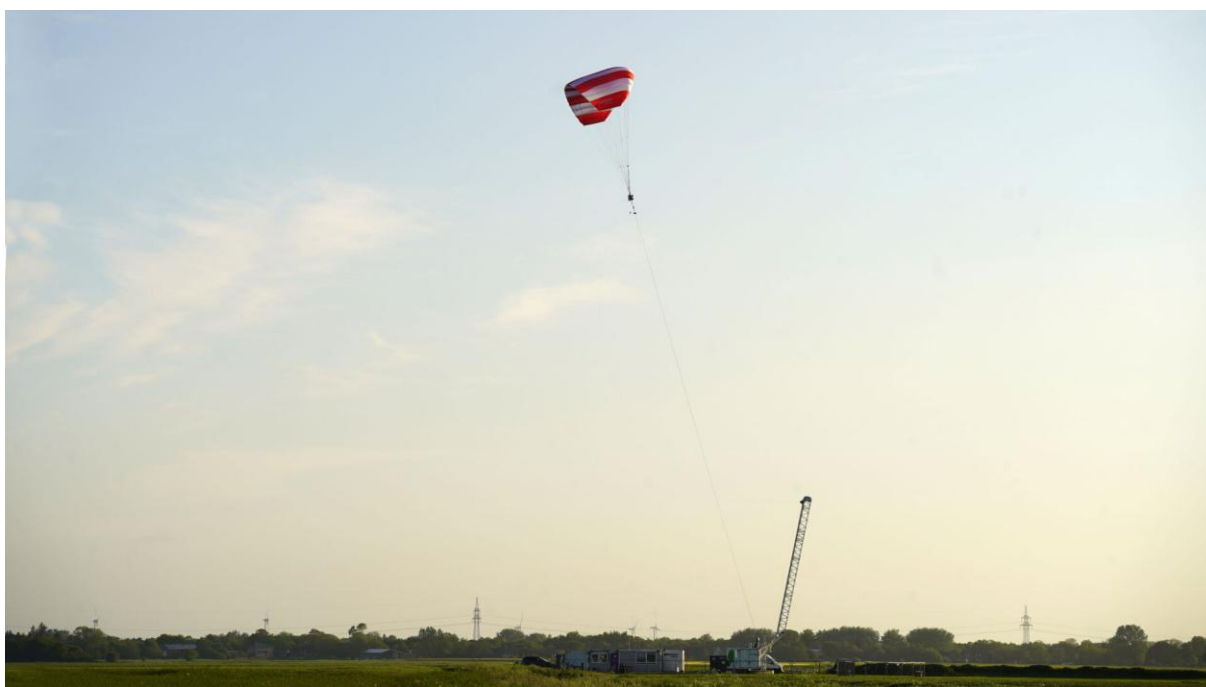
**There are also many possible site-specific concerns.** For example, people often discuss how wind energy projects, might affect tourism, wildlife, agriculture and recreational activities (Bell, 2005). Although these concerns are well documented for conventional wind farms, there is still very little research on how AWE might impact these areas.

**When it comes to safety, the reviewed literature recommended placing AWE test sites in remote areas to reduce risks to the public.** The aviation sector has also expressed concerns, viewing AWE systems as a potential safety issue. One unique challenge is that a malfunction of an AWE device can lead to a crash. At best, they can be guided to land safely, but people might be worried about reliability, especially while the technology is still being tested and clear regulations and product standards are not yet in place.

**One study (Schmidt et al., 2024) found that when asked directly, people preferred AWE systems to be installed further away from homes.** However, no direct link could be observed between distance to the local AWE project and acceptance: that is, people who lived closer to the project were not necessarily less accepting of it. In populated areas, some participants suggested that operations should be limited to daytime hours to reduce disruption. When asked about preferred locations for commercial AWE projects, respondents mostly chose agricultural land. Offshore locations were the second most popular choice, followed by unprotected natural areas, the edges of towns, and then more remote regions like deserts, forests, mountains or stretches of undeveloped coastline. A few people suggested placing AWE systems where other renewables cannot be deployed or combining them with solar farms. Curiously, a small number even proposed mounting them on rooftops of tall buildings, however, these respondents also reported being unaffected by visual or noise impacts of the local AWES.

## Recommendations:

- **Avoid development in protected areas such as Natura 2000 sites.** These areas are designated to safeguard Europe's most valuable and threatened species and habitats, and any development within them is subject to strict permitting procedures under the EU Habitats Directive (European Commission, 2025). The potential risks of **negative impacts on biodiversity as well as reputational damage** (not only to the specific project but to the entire AWE sector) outweigh the potential benefits of producing renewable energy in these regions. While future deployment may become possible once the environmental impacts of AWE systems, particularly on birds and bats, are better understood and if there is strong local community support, such development must be approached with caution.
- **Prioritise early and transparent community engagement** e.g. by sharing clear and accessible information on how the technology works, expected noise levels, safety measures and visual impacts. For more details, see next section.



*SkySails in Klixbüll, Germany. Source: SkySails*



## 3 AWE Projects: Ensuring Community Engagement

**Renewable energy project development typically follows several established steps:** feasibility study, site selection, environmental impact assessments and permitting, detailed design, financing, construction and operation and monitoring (Esposito, 2024). At each of these stages, public perception and community engagement can influence timelines, costs, and overall success.

**During the feasibility and site selection phase,** public attitudes may determine which locations can be considered viable, less from a technical or environmental standpoint but from a social one. Community input is often formally required during permitting and environmental review. If concerns are not addressed early, opposition may escalate, leading to delays or legal challenges (Buchmayr, 2021).

**As projects move into design and construction,** clear communication and responsiveness to concerns such as land use, visual impact, ecological effects, safety, or noise, can prevent backlash and foster local goodwill. This approach should continue during the operation and maintenance phase (O&M), where ongoing transparency and responsiveness to emerging issues are key to maintaining trust. Planning for responsible decommissioning from the beginning also demonstrates long-term accountability and respect for community and environment.

**To improve the chances of successful deployment and long-term community support, AWE project developers should consider the following recommendations.** They are not necessarily AWE-specific and take into consideration best-practices from the wind sector and other renewable energy projects.

### 3.1 Treat community engagement as a core project discipline

**Plan and allocate time and budget for key engagement components from the outset.** This includes staffing (for planning, stakeholder identification, participation in events, and monitoring), organizing events (such as workshops, site visits, or information events), and ensuring appropriate communication materials and channels (including websites, printed materials, videos and social media). Community engagement should thus be a fundamental part of project development just like engineering, permitting, or financing which increases the long-term value of the project.

**See the community as host, you are the guest:** Experience from other projects show [IEA Task 62] that project developers should have the mindset that the community where the project is built is truly considered as host who will only welcome you if you treat them accordingly. Recognising the vicinity of a community as their “backyard” or “home” is a matter of respect and decency when approaching a new community.

**Involve external experts such as facilitators or mediators,** particularly in contexts where sensitivities or complex local dynamics are present. For example, in the AWE project in Ketzin, several independent institutes (Neuland Quartier, IÖW, IKEM) and the industry body Airborne Wind Europe were engaged to support the process.

## 3.2 Engage Early with Communities

**Social science literature on wind energy projects (e.g. Lüthi, 2021) recommends involving the local community early on the process.** It highlights that community acceptance hinges on *procedural justice* - a fair, open and inclusive decision-making process. It can reduce backlash as surprises late in the process often lead to opposition. Moreover, local knowledge can be incorporated as residents can flag potential social, environmental or cultural concerns that the project developer may not be aware of. Community input may even improve the project’s layout and general design which can further improve acceptance. It also avoids spending time and money on permitting processes with the risk that the project may get rejected by the host community.<sup>4</sup>

**However, before engaging more broadly with the local community, the following points should be answered with a confident yes,** using public information where possible:

- Is it safe to operate the system without flying over roads, railways, or other infrastructure?
- Are there no protected areas or endangered species?
- Are there no airspace restrictions (e.g. airports or hospitals close by)?
- Is there a grid connection possible?
- Are there infrastructure projects (e.g. wind or solar projects, roads, buildings, power lines) planned on or close to the potential plots?
- How many landowners are there; can they be identified and would they be willing to host an AWE project?

In case a few first individual conversations are necessary, e.g. with staff from the municipality or regional administration, it should be made clear that it is still about a project idea in the initial feasibility evaluation phase.

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<sup>4</sup> It should be noted, however, that a permit cannot normally be denied arbitrarily by the municipality. Rejection is only possible if the project conflicts with the zoning plan or other significant and legally regulated reasons. Therefore, the project is not automatically at risk, nor is the investment necessarily wasted. That said, it is of course advisable to gain the municipality’s support and foster good cooperation, as conflicts usually lead to additional costs, delays, and a more difficult project development process.

## Early engagement is easier said than done – the complexity of finding the right moment on when to involve whom.

Finding the right moment and approach which person or stakeholder group requires a good analysis of the specific situation. This is demonstrated in the following example from the JustWind4All project in Ketzin:

**EnerKite as project developer and the potential client e.disnatur discussed where a demonstration project could be located.** The client proposed a location close to their own facilities in Ketzin where they could use the electricity for self-consumption (in this case close to their biomass plant). There were several open fields with few trees where the kite would not fly over roads or infrastructure.

**In theory, having identified a potential location, it was the first moment in the process where the local community could be made aware of the project idea.** People living close to the location could be approached with the information: “We have identified this interesting location for an AWE project, we would like to further investigate it and talk to you about it.”

**However, at this stage, it was not known yet if the landowners would agree, nor if there were any restrictions in terms of permitting, nor any special local circumstances.** If questions are raised on these issues (“I know the landowner, she may not give the land”, or “You didn’t know that there is a special bird in this area? You could have known this by asking the environmental office”), the project developer would have no answer. People would be left unsatisfied because of too many unknowns.

**EnerKite spent considerable time to secure the land.** The landowner of the initially identified site was not responsive and eventually declined. Eventually an agreement could be achieved with owners of neighbouring fields.

**EnerKite also preferred getting (preliminary) permits and approvals from** the authority of civil works, civil aviation authority and environmental authorities (building permit, environmental permit, airspace permit) given the innovative nature of the project. Project partner e.disnatur also saw the risk of bad press and “unnecessary excitement” in the community if the project would have run the risk to be cancelled in the administrative process. It took several months to ensure that the most important permits could be achieved even if they were not fully granted yet.

**Therefore, it was decided to not yet inform local citizens and only once the project had reasonable chances of success.** At the local JW4A stakeholder workshop with the mayor, this approach was confirmed to be appropriate.

In the Box “Events organised for Ketzin project” the sequence of communication and outreach events is described in more detail.

### 3.3 Identify Key Stakeholders and plan the engagement process well

**It is a considerable effort to identify the local and regional stakeholders.** Not only is it necessary to understand the different levels of authorities and organisations that should be or have an interest to be involved but also to get a reasonably good idea who are the key persons to talk to. This requires numerous phone calls, emails and meetings.

Stakeholders include the following groups, more or less shown in the order of how they should be contacted and get involved (see more on the right timing below):

- **Landowners:** This includes landowners where the ground station(s) would be located as well as areas that would be flown over. Without their willingness to cooperate, a project will not happen.
- **Municipal Councils and Administration:** Once it is clear that the project could in theory be realised, it is advisable to take a top-down approach when starting the engagement with the local community by involving first only a small number of potential decision makers, i.e. the mayor, the city council and other local authorities. They know their community and are commonly also in charge of whatever is decided for the community. If authorities turn out to be too critical or not sufficiently cooperative, this can usually only be resolved with political support  
It is also advisable to identify a kind of “local leader” — a person with significant influence in the community — and win their support for the project. Such a figure can, in turn, exert a positive influence on key decision-makers, such as the mayor or the municipal council. For more recommendations see box below.
- **Public Authorities:** Before a potential site can be communicated with the local community, it may already be possible and even advisable to clarify specific topics of the permitting process or to explore initial reactions with regional (non-local) stakeholders on how AWE would be perceived in the wider region. Regional aviation authority, regional spatial planning authority, authority for environment: In cases where there are critical questions to be clarified in specific areas of the permitting process, certain regional (non-local) authorities may already be contacted earlier.
- **Energy / environmental agencies and NGOs:** Regional or local agencies/competence centres for climate and energy, nature and bird protection agencies, environmental NGOs
- **Residents that live closest to the potential site:** Even though research shows that acceptance of a wind installation is not necessarily directly correlated with the distance, it is recommendable to actively get in contact with the closest neighbours who are more likely to be affected by seeing or hearing the AWE system. Before doing so, the local city council should be consulted to get an understanding for the



neighbourhood and avoid surprises. Ensure residents feel heard and valued, as this significantly reduces annoyance and resistance.

- **Local stakeholder groups:** Energy communities, associations, clubs, (voluntary) fire brigades, tourism office, other local citizen initiatives. Their networks can help increasing awareness about the project and identifying potential pain points.
- **The local public:** “Normal citizens” living in the local community. Many will be indifferent to an AWE project, others will welcome it and there may be individuals or groups that are against it.
- **Research:** Universities and institutes dealing with energy and social acceptance might be involved as well to accompany the project.

### Political-Strategic Communication with Municipal Councils and Administration

Acceptance within municipal councils and administrations is a decisive success factor for AWE projects. Without the support of these actors, projects can face significant delays or even be stopped entirely. Strategic engagement with municipal decision-makers should therefore be treated as a dedicated workstream from the very start of the project.

#### Recommendations:

- Identify early on who sits on the relevant committees (e.g. construction, environment, finance), who the key decision-makers in the council are, and who holds informal influence.
- Engage councillors and administrative leaders in suitable formats (committee meetings, party group discussions, one-on-one meetings) before public debates begin.
- Clearly demonstrate the concrete benefits for the municipality: contribution to climate targets, energy independence, economic attractiveness, additional revenues, or regional value creation.
- Identify local issues that can be linked to the project. This includes reviewing local press, speaking with key individuals, and monitoring relevant discussions on social media.
- Assess the latest public opinions towards your AWE project or the energy transition in general. This will help you choose the right communication strategy — whether it should be primarily informative, more tactical, or a mix of both.
- Communicate on an equal footing, respect municipal decision-making logic, and connect the project to existing strategies (e.g. climate action plans, urban development strategies).
- Build trust through regular, transparent updates, and be open about both opportunities and potential challenges.

A targeted and well-prepared dialogue with the right municipal decision-makers — based on an informed understanding of current public sentiment — greatly increases the likelihood that the project will not only be approved, but also be politically supported and firmly anchored in the community over the long term.

### 3.4 Adapt Engagement to the Local Context

**While general acceptance of renewables tends to be high across Europe, local acceptance is still dynamic and conditional.** As mentioned above [see box on social acceptance], a distinction can be made between “sociopolitical acceptance”, which refers to broad societal acceptance of renewable energy at the national level, and “local acceptance”, which occurs at the community level and refers to the siting and direct implementation of renewable energy projects. Local acceptance is not a given and cannot be assumed to transfer from national to local levels.

#### Recommendations:

- **Carefully cultivate local acceptance** through transparent communication, early community involvement and attention to specific local concerns, such as visual aspects, ecological impacts, land use values and distribution of benefits.
- **Tailor outreach and engagement strategies to reflect the identity, values and priorities of each local community**, acknowledging what resonates with them and what is not appealing. The potential advantages of AWE, such as its ability to generate renewable energy with low ecological footprint, should be clearly communicated.

For example, in the case of Ketzin, it was important to acknowledge the history of wind energy in Brandenburg and notably of the so-called “Nauener Platte” where some 200 wind turbines were installed in the early 2000s with low and insufficient involvement of the local community. This led to protests and opposition to further wind developments. An idea discussed in one of the JW4A workshops on how to turn AWE into something positive for the community was that Ketzin could position itself as “energy innovation municipality” since Ketzin already hosts the e.disnatur energy laboratory which includes a biogas plant, PV and a small wind turbine.

- **Implement ideas that are proposed by the local communities where possible.** Local suggestions to improve the project, e.g. a different location of the ground station, adjustment of operational hours, should be implemented and also communicated transparently. These ideas should be ideally raised during the planning process because, as a rule, there is no possibility to make significant changes to the project or the installation once the permit has been granted. At that stage, it must be built as approved. However, it is not easy to get local residents involved at an early planning stage because they deem the project as still not concrete enough.
- **Communicate to which extent residents can realistically influence the project.** This should be done at the outset of the planning process. It should be avoided that they expect that all their ideas will be implemented because if they are not, it will lead to frustrations and possibly resistance.

## Events organised for the EnerKite project in Ketzin



In the course of the JW4A project, the following workshops and interventions were organised. This was done in close cooperation with EnerKite's [EKEleVate](#) project. The preparation of these events took a significant amount of time; points to be considered for similar events can be found in the annex.

*Open doors event Ketzin. Source: EnerKite*

1. **Online workshop with regional stakeholders (Nov 2023):** This workshop was organised before the exact location could be disclosed. The aim was to discuss AWE technology in general terms with regional authorities, NGOs, a private pilot association and energy agencies in order to understand potential concerns.
2. **Online workshop on environmental impacts (Feb 2024):** Also this workshop took place prior to the announcement of the site in Ketzin. Regional ornithology experts and environmental agencies were invited to discuss in more detail how impacts of AWE on wildlife can be reduced.

Once the green light on permits was given, the site in Ketzin could be made public. EnerKite, e.disnatur, the JW4A team and a consultancy firm worked on a communication plan.

3. **Presentation to local politicians at a regular townhall meetings (Aug 2024).** While some parties expressed interest and support, others were neutral or even against it. The mayor was already informed prior to the meeting and her support was secured. EnerKite announced the following "open doors" event.
4. **"Open doors" event at the client site (Sep 2024).** A few weeks later local citizens were invited to learn more about the project. There were more than 50 people attending despite unfavourable weather conditions. A "marketplace" with three different topics was set up explain the technology, the environmental impacts and the AWE sector.



*Open doors event Ketzin. Source: EnerKite*

5. **Local key stakeholder workshop (June 2025) where local key stakeholders were invited.** At that point, all key permits had been secured. Invitations were sent out by the mayor's office. The aim was to discuss concerns, opportunities and recommendations of the AWE project for Ketzin. Participants included the mayor, community council members and an environmental expert; they gave very honest comments and constructive feedback, also welcoming the project team's approach regarding community engagement.

If in the first two meetings the majority of politicians or citizens had been negative about the project, it might have been already stopped at this stage and (only) the time and cost invested in the (pre-)approvals would have been lost. On the other hand, if the approvals wouldn't have been there, the project might have been announced and then stopped through the administrative process, potentially creating frustration in the community and negative press about the project developer.

### Kitekraft has been engaging with the local community of Unterhaching

In 2023, when their system was connected first time to the grid – receiving a special tariff from the local utility – the mayor, representatives from industry as well as local farmers and citizens were invited. (KiteKraft, 2023)



Kitekraft event in Unterhaching in October 2023. Source: Kitekraft



Kitekraft at Unterhaching Street Festival in July 2024. Source: Kitekraft

### 3.5 Offer Local Benefits – to the realistically possible extent given the stage of AWE development

**Showing how a renewable energy project will bring local benefits, such as new jobs, investments or educational partnerships, can significantly increase its acceptance (Segreto, 2020).** Across Europe, different countries introduced ways to ensure that local communities benefit directly from RES projects (CAN Europe, 2025). For example, in certain German regions, developers can make voluntary payments to municipalities based on the amount of electricity they produce, in others there are mandatory schemes. France shares tax revenue from RES projects with local authorities. Belgium encourages citizens' involvement by allowing people to invest in local projects and by designing wind project auctions that reward community participation.

**At this stage of AWE development, it is still not yet possible to offer substantial economic benefits to the local communities** as fully commercial projects are not yet in operation and most installations are R&D focused sites and are often publicly financed (or co-financed). Therefore, it is especially important to **manage expectations and avoid making promises that cannot be fulfilled**. Maintaining transparency and focusing on the long-term potential of AWE, rather than short-term gains, is key to building trust and support.

**But AWE project developers can already actively get familiar with benefit sharing concepts**, find out about existing (voluntary and mandatory) participation schemes in the regions of interest and incorporate them in their business and project plans. That way they are prepared for discussions and can make offers to local citizens that are meaningful. There might also be other ways that R&D projects can offer benefits to the local community such as site visits for school classes or workshops in flying kites.

#### Recommendations (for future commercial AWE projects):

- **Provide monetary benefits to locals.** These can have the form of lump sum compensations (e.g. fixed payout per project or capacity) or regular payouts (e.g. based on kWh produced annually).
- **Provide locals with the opportunity to become owners of assets** to help increasing their participation in the energy transition.
- **Offer local control:** Energy communities, and especially energy cooperatives, are most inclusive by having a "one share, one vote" structure. There are also models that do not grant all asset owners voting shares.
- **Provide in-kind goods and services** to communities such as support for local education, playgrounds, swimming pools, etc. Another option is to offer cost savings for local residents and companies through preferred access to locally generated electricity, i.e. reduced electricity bills.



## 3.6 Ensure transparency through ongoing communication

**Transparency and consistent engagement are essential for building and maintaining public trust**, especially for new technologies where public knowledge is still developing. Clear and honest communication about safety, environmental impact, timelines and system limitations should begin early and continue throughout the project life cycle. Community engagement should not end with project approval or commissioning. It is a continuous process that extends into the operational phase.

### Recommendations:

- **Listen to the community and have personal conversations** with key stakeholders or concerned parties especially in the early phases of the project. Constructive dialogue that considers locals' ideas and suggestions can help facilitate project completion.
- **Invest in understanding the context.** Conduct context-specific research and develop understanding of socio-ecological dynamics.
- **Provide a project website, maybe even social media account and a clear contact point.** The website should be regularly (in the early phases at least monthly) updated, contain an FAQ and give concrete hours when the project developer can be contacted to answer questions.
- **Keep on organising events and site visits:** There could be e.g. one "open doors" event organised per year. Project progress (e.g. energy produced, new equipment tests, etc.) could be shared on a quarterly or half-yearly basis in townhall meetings. EnerKite is already planning with IKEM events in 2026. Kitepower invited school children to the site in Ireland.
- **Address emerging issues quickly and maintain open, two-way communication channels.** Emails should be answered within one to two weeks. Comments to proposals from citizens might be published on the website, explaining if and how they will be implemented and for what reasons.
- **Prioritise local procurement.** Engage with local businesses, schools and community organisations to support educational activities, cultural events and other community development projects.
- **Build local competences.** Allocate resources to building essential capacities from technical to communications.



## 4 Conclusions

**For developers of airborne wind energy systems, social acceptance is not a marginal issue - it is central to project success.** Public perception influences everything from permitting and financing to long-term operations. As the literature – and experience from the first AWE projects – shows, trust, transparency, and early engagement are among the most effective ways to ensure that AWE projects are not only technically and financially viable, but also publicly supported.

**There are already ample best-practices regarding social acceptance available.** The AWE sector can build on the know-how and experiences of the wind and renewable energy sector; there is no need to start from scratch. It is now important to apply these learnings to AWE projects, adjust where necessary and build up AWE-specific best-practices.

**Social acceptance of AWES is shaped by a combination of technical, environmental and social factors.** While general concern about the technology is currently low, safety remains a critical issue since an accident can have a major impact on public perception. Safety must be proactively addressed throughout project planning and execution; transparent communication of relevant incidents and regulatory clarity are essential to building trust among all stakeholder groups.

**In terms of visual impact, AWES may be perceived as less intrusive** than conventional wind turbines. However, both aerial and ground-level visibility should be considered, especially in culturally or historically sensitive areas, where emotional ties can influence acceptance.

**Even with noise emissions from AWES within legal limits, psychoacoustics influence acceptance.** Below legal thresholds, noise annoyance is shaped more by sound quality and subjective factors, such as fairness, trust and involvement in the planning process than by decibel levels alone.

**Ecological impacts of AWE are not yet sufficiently studied,** even though public perception of environmental harm can strongly influence project support. First studies and project-related bird surveys suggest that impact of AWE on birds are comparable or potentially below impacts of conventional turbines. However, given the few active AWE sites with limited operational hours, more research and open dialogue about potential effects are necessary.

**Attitudes toward AWES tend to be a mix of curiosity and caution.** Providing transparent, accessible data about system performance, timelines, and existing challenges helps manage expectations and builds credibility.

**Ensuring stakeholder and community engagement in all phases of a project is key to achieve high levels of social acceptance.** Public engagement should be continuous

throughout the project lifecycle, from feasibility and permitting through construction and operation. This includes early, inclusive, and context-sensitive communication and engagement with communities and key stakeholders, tailored to local infrastructure, values, and priorities, ideally offering tangible local and long-term benefits such as jobs, economic participation, investment, or educational partnerships.

**In short, community engagement as a core project discipline** is key to a smooth project implementation and lasting acceptance of AWE projects.



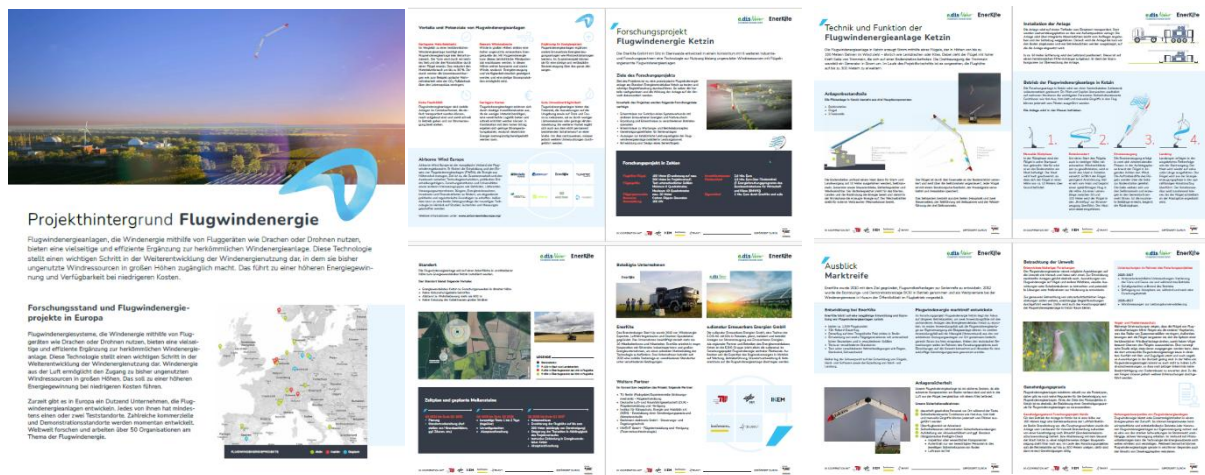
*Kitepower in Bangor Erris, Ireland. Source: Kitepower*

## 5 Annex

### 5.1 Checklist for organising a public event ("open doors event")

Preparatory activities include:

- ☐ Identify key stakeholders
- ☐ Prepare invitation mailing lists and posting/publication options, including personal invitations to key stakeholders (mayor, licensing authority, etc.)
- ☐ Create invitation email / invitation flyer / press release and define timing of release
- ☐ Invite media
- ☐ Organise catering
- ☐ Hold sufficient number of team briefing sessions
- ☐ Develop emergency plan: Inform police, fire brigade, public order office
- ☐ Create an FAQ on the project as a basis for the creation of communication tools and language rules
- ☐ Create project visuals / simplified visual appearance
- ☐ Create theme islands and design posters for theme islands: information on posters presented on movable screens/walls during the event, set up by topics (project, technology, environment) with 1-2 experts answering questions of the visitors.



Information screens about EKEleVate project in Ketzin. Source: EnerKite

## 5.2 Checklist for organising a smaller stakeholder meeting

**Proposed format: World Café.** Other formats are possible. In the case of Ketzin, the questions were posed in an open discussion as there were not enough participants for a World Café.

### Preparation / parameters:

- 60 minutes
- 3-4 tables addressing 3 key questions
- 12-15 min discussion at each table, max. 5 min presentation of key results of each table by moderators
- The last 12-15 minutes are dedicated to the moderators of each table presenting the key findings of each table in 2 to 3 minutes max
- Tools: 1 flipchart paper per table, several markers per table, post-its
- Questionnaires and pens, print out questions and bring them with you

### Introduction:

- Explain the format
- Ask for speaking time of max. 1.5 min at the beginning
- Ask if participants are you already familiar with airborne wind energy, for example from previous events?
- Maybe ask how important is local power supply independent of imports? (energy self-sufficient / energy autonomous?)
- Show and compare with figures for Germany, see survey from German Renewable Energy Agency

### Table 1: Concerns/ Worries: *What concerns do you have about the specific project in [Site/location name] (if you have any concerns)?*

- What were your **first thoughts when you heard about the project?** (rather chances, concerns, wishes) - quantitatively query - initiate table
- Have you had any negative **experiences** with local energy projects and are you worried that they could happen again?
- Are you worried about the impact of the project on you or the environment?
  - Have certain thoughts or worries become entrenched or have new ones arisen?
  - How did those around you perceive the project?
- How do you perceive the **communication and the planning** process? Do you have the feeling that you have been involved in the planning?

### Table 2: Opportunities: *Where do you see opportunities or what would you find interesting to see?*

- Do you see **opportunities** in energy being produced locally in your municipality?
- Do you see potential in the technology for **local economic growth** and jobs?
- What opportunities do you see for the **image** and awareness of your municipality?  
Do you see potential for airborne wind energy as a lighthouse project?
- Would you be interested in **financing models** for the technology in which citizens can participate in the future (this is not possible with the current project, as it is a research project)?

**Table 3: Wishes for future AWE projects. *What should future AWE projects consider?***

- Which **local conditions** should be taken into account by planners?
- What **factors** are important for you to perceive the planning of a local energy project as **fair** ?
- What do you think of **financial benefits**, e.g. electricity tariffs for residents?
- Can you imagine making a **direct financial** contribution **to airborne wind energy projects**?
- What needs to be done to ensure that you have **confidence** in the company and in the municipality in the planning process?

**Table 4: Measures to promote a positive perception of AWE. *What should be done to ensure that the local community see the technology positively?***

- What could be done specifically in the planning process so that the people want to support AWE?
- What kind of **communication** could arouse your interest in the project?

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