Enhancing social acceptance in marine governance in Europe

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Abstract

In this article we address social acceptance in marine governance. Public support and opposition are critical to any future developments of marine areas, and are often neglected aspects. Whilst one of the main new developments in European marine areas is the increase in sites for offshore wind, social acceptance of renewable energy developments in Europe is shown to be low in a series of on-going studies. There is perhaps often a sense that renewables such as wind, wave and tidal will be 'out of sight, out of mind' when developed offshore but the empirical research evidence from across Europe suggests otherwise. People are protesting against offshore wind, and doing so very effectively, preventing and delaying the development of projects. This article articulates the term 'social acceptance' as a goal in marine policy implementation in European waters in general, and provides illustrations of the implications of social acceptance of offshore wind in a series of case studies. The experiences of social acceptance, together with theoretical insights, should be taken into account in future innovations for blue energy at sea, including the wind farms, but also wave and tidal devices and other technological developments.

Key words: Social acceptance, marine governance, offshore wind farms, public engagement, Blue growth

1. Introduction

The marine sector presents opportunities for expanding new economic activities, whilst preserving traditional uses and conserving ecological conditions. The EU has launched 'The Blue Growth Strategy' to enhance the exploration of marine areas for job creation, research and development, and the delivery of technology improvements and innovation (Børresen, 2013), in which five marine sectors are particularly promoted: blue energy, aquaculture, tourism, minerals, and blue technology (European Commission, 2012). Within these developments one of the fastest growing sectors offshore is wind energy. While wind farms not only support the Blue growth strategy, they also contribute to government targeting of increased generation of renewable energy. A vision aiming towards increasing renewable energy to gain both environmental and economic benefits, often referred to as a 'win-win' strategy, is visible across European countries, including the UK, Germany, France and the Netherlands.

However, these developments are not without concerns. The extended areas to be used for wind farms have other user groups and interests attached to them, which require attention. The large investors in offshore wind farms in Europe have experienced a persuasive hurdle to these developments, namely a lack of social acceptance (Wüstenhagen *et al.*, 2007). Meegeren (2001) explains that social acceptance depends on what affected people think of implemented measures (see also Rudolph, 2014). It therefore concerns procedural- and distributional justice as well as trust (Wüstenhagen *et al.*, 2007). The reference to social acceptance is in most research rather general, and there is a need for a more specific interpretation of social acceptance.

Research on social acceptance has taken place across Europe related to wind energy, among others, finding that the *process* of development matters (see for example; Aitken, 2010a; Bell *et al.*, 2005; Boyd and Ellison, 2008; Breukers and Wolsink, 2007; Devine-Wright, 2009, 2005; Ellis *et al.*, 2007; Gray *et al.*, 2005; Haggett, 2011, 2008; Haggett, C., Coleman, R., and Hodges, 2014; Jobert *et al.*, 2007; Rudolph, 2014; van der Horst, 2007; Wolsink, 2012, 2010). A lack of communication between local people, developers, and decision makers can create the ideal conditions for converting local scepticism and negative attitudes towards wind farms into actual actions against specific projects, and also, 'if local interests are not given a voice in the decision-making processes, conditional supporters may turn into objectors' (Wolsink, 2012, 2007:2694). The development processes, the opportunities for engagement, trust, transparency and perceptions of the engagement all strongly affect social acceptance (Aitken, *et al.*, 2014). If people feel the process has been fair, they are much

more likely to support the outcome; or to oppose the outcome of a process deemed to be faulty (Gross, 2007). *Cooperation* among different actors is thus critical to obtain social acceptance (Mallett, 2007).

The offshore differs from onshore because social acceptance at sea encompasses at least three more core challenges in terms of specifying; 1) a community, 2) property rights and 3) so called 'nimbyism'. First, because no one actually lives in the marine areas used for marine development projects, there are questions over how the legitimacy of public concern/support is defined in relation to offshore planning processes and to what extent this is bound up with proximity of more relevance at sea. Second, a core aspect of wind farm conflicts is the way people perceive the relation between private property and public access (Bromley, 2006). Courts often have problems with the terms private property rights against incursions for public use, because they are in fact not very well defined at sea (Soma and Vatn, 2009). The public rights at sea implies that people feel a sense of 'ownership' over natural resources (such as landscapes and seascapes), even while they realise that they do not own them in a material sense (Haggett, 2009). Third, lack of social acceptance is often wrongly explained by the idea of 'nimbyism', when people are assumed to support the technology in principle but want it 'not in my backyard'. As Haggett (2011) describes in detail, this conceptualisation is often both unhelpful and inaccurate, even more at sea than on land, and does not move forward an understanding of why people object to wind farms.

The existing literature clearly shows that social acceptance is of importance to new offshore developments. However, it remains unclear how to best ensure social acceptance through public engagement in practice. There is thus a need for improved understanding of practical implications, which can contribute to increased social acceptance.

This research is motivated by the challenges observed for achieving sufficient levels of social acceptance in new marine developments. Against this background, the main aim of this article is to explore how public engagement can shape social acceptance in practice. Based on an analysis of four case studies conducted in the UK, we particularly want to contribute with improved understanding of: 1) theoretical interpretations of what social acceptance actually is, and 2) implications of engagement in practice illustrated across the four off-shore wind farms in the UK.

In order to find how public engagement can shape social acceptance, we firstly define the concept of social acceptance, to understand different societal roles and to search for what public engagement can contribute with. Secondly, we examine when social acceptance is lacking and when it is perceived by means of societal experiences based on case studies of offshore wind farms.

Accordingly, we first address existing theoretical insights of public engagement and social acceptance (sections 2), and explore actual societal experiences in UK case studies on offshore wind farms (section 3). This is followed by a discussion (section 4). Finally, we present some concluding remarks (sections 5). We base our conclusions on experiences drawn from selected case studies, and on theoretical descriptive analyses, and do not claim causal inference.

2. Theoretical insights of social acceptance

2.1. Defining social acceptance

Social acceptance has been distinguished as 'socio-political acceptance', 'community acceptance' and 'market acceptance' (Firestone et al., 2009; Wüstenhagen et al., 2007). This interpretation of social acceptance points to differences between the general public, the community, and the market actors, and demonstrates discrepancies between the general public and the community opinions (Wüstenhagen et al., 2007). This makes sense if purpose is to address market- and public contexts separately, and also, when the general public has different views than a community, because they are not as strongly connected to affected areas. However, such distinctions are not always of most relevance. For instance, they do not cover the varieties within a community where actors operate in many more different roles, and they do not reflect on the actual reasons why social acceptance is appearing or lacking. Because the interplay between the three definitions is not always clear, there is a need for a more governance based interpretation of social acceptance.

In recent literature, *public response* has been introduced, which can be interpreted as social acceptance if it is positive, whereas when public support is negative, it is referred to as public opposition, protest, disputes or inquiries (Haggett, 2011; Walker et al., 2014). In this article, we interpret social acceptance by focusing on the public response, within and outside communities towards the physical intervention of building offshore wind turbines. Moreover, a hypothesis based on earlier research is that when changes are instructed from inside the community, the opposition is less (Haggett, 2011). There is thus a public response to external entrepreneurs and even more to the policy makers who allow new project developments to happen. Furthermore, a third opposition direction relates with how a community is treated. This is process related. If people think they are sufficiently involved throughout a process, the opposition can decrease (Bates and Firestone, 2015; Château et al., 2012).

Focusing at a community level in this article, we therefore specify that social acceptance depends on three core dimensions of; 1) what the actual interventions are, 2) how the new development is generated through processes of engagement, and 3) the people who are entitled to make rules, i.e. accountability of authorities. The 'actual intervention' refers to, in this case, number of wind turbines and any restrictions imposed to present activities, while processes of public engagement comprehends relevant actors perceiving themselves as being involved in a process that considers their preferences in a fair and balanced way (Eliasen et al., 2015: 229). 'Accountability' refers to the obligation to explain and justify management and leadership (Bovens, 2010), the allocation and acceptance of responsibility for decisions and actions, as well as the demonstration of whether and how these responsibilities have been met (Lockwood et al., 2010). See Figure 1.

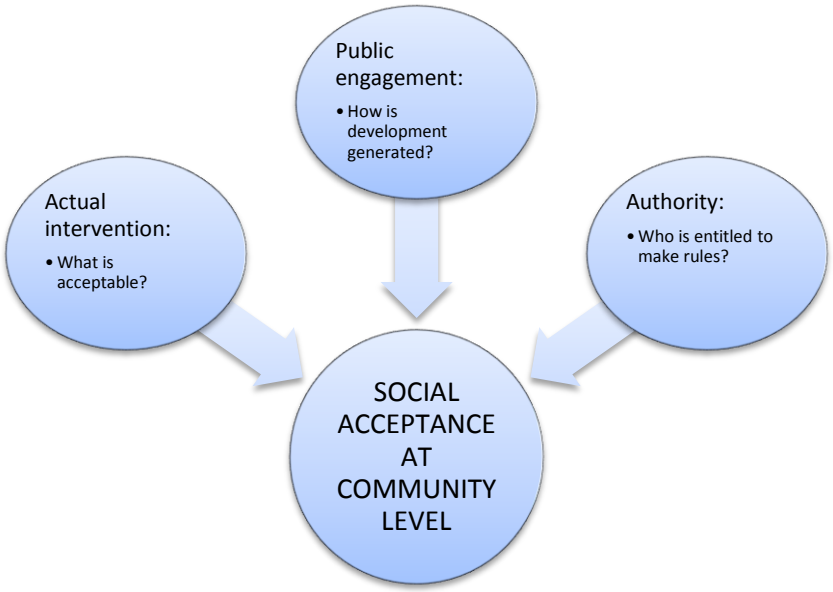

Figure 1. Social acceptance at community level – a matter of actual intervention, public engagement and authority; i.e. accountability of policy makers.

Whereas this interpretation would be applicable to market and public contexts, in this article we focus on a community situation with specific wind farm projects under development. Based on this reasoning we suggest a following interpretation of social acceptance; 'agreement and justification of shared rules by a community in terms of what is accepted intervention, how development is generated and who is entitled to make rules'.

2.2. Public engagement

Public engagement refers to when affected people are involved prior to a policy decision. The formats of public engagement are plentiful, ranging from simply distributing a questionnaire to impacted people on the one hand, to arranging meetings with comprehensive dialogues, on the other. The different methods of participation may be used for different reasons; more inclusive and extensive methods may be used if there is a real intention to try and involve stakeholders and citizens in a mutual dialogue; rather than merely give them information or assume that they need to be educated. Aitken *et al.* (2014) argue that various 'levels' of public engagement exist, which can be summarised as representing three broad approaches;

- **Awareness raising**: This layer of engagement is essentially concerned with information provision. The desired outcome is likely to be greater public acceptance or legitimacy for the project.
- **Consultation**: Limited forms of public feedback into decision-making processes. The aim is to gain an insight into public opinion, and to create a socially acceptable or appropriate policy or project.
- **Empowerment**: More participatory forms of public engagement, which give greater control to participants. The aim here is to work with the public, enabling them to play key roles in decision making, building social capital, and enhancing democracy.

Overall, when deciding on exact needs and challenges for specific locations, social acceptance is most likely to be achieved by transparent, extensive and ongoing public participation, structured with clearly defined roles, focused on building trust and developing good relationships between all concerned (Aitken, 2014). Empowerment can, for instance, be ensured through so-called deliberative processes (introduced by Habermas, 2008, 1981). Then the public engagement process would involve: 1) enhancing understanding and producing new options for actions and solutions to the problem, 2) decreasing negative attitudes among participants, 3) showing and documenting the full scope of ambiguity associated with the marine resource problems, 4) helping to make a society aware of the options, interpretations and potential actions that are connected with the issue under investigation, 5) clarifying problems to make people aware of framing effects and explore new problem framings and 6) producing competent and fair solutions (O'Neill, 2001; Renn, 2006; Smith, 2003). Such processes could also deal with questions about 'who is entitled to make rules' and 'how authority itself is generated', which are important for social acceptance.

Moreover, defining future goals through transparent and accountable public involvement processes can be critical to social acceptance of outcomes. Lack of social acceptance can be explained by exclusions from taking part in discussing visions and aims for future to establish common long-term views and address different perception of the problems involved (van de Kerkhof and Wieczorek, 2005). This is important because the exploration of long-term perspectives and possible future developments stimulate participants to take some distance from their individual concerns and interests, which eventually encourages more incentives for openness and willingness to adapt to new contexts (Soma et al., 2015). Such discussions will for instance reveal differences in future perceptions of market- and community acceptances, and allow possibilities for finding solutions that can contribute to both.

Often, when the participatory processes are seen to be costly and a waste of time, unappropriated strategies are implemented in the form of gathering some people to give their opinions in processes which lack capability and adaptability (Haggett, 2009). Notably, the successfulness of 'shared rules' and 'acceptable interventions' depend on whether public engagement endure capability and adaptability. In this sense, high capability would ensure good qualities of plans, resources, leadership, knowledge and experiences that enable participatory processes to effectively be integrated into policy making. High adaptability would allow better integration of new knowledge and learning into decision making and implementation, anticipation and management of threats, opportunities and associated risks, as well as systematic reflection on performance of the project (Lockwood *et al.*, 2010).

The exact needs and challenges, the extents to which, for instance, ecosystem health, economic opportunities or human well-being are to be considered the most, depend on location and time (Leslie and McLeod, 2007). Context dependent research shows that the importance of ecological and social-cultural objectives can be judged relatively more important compared with the economic ones for a range of different actors throughout Europe (Soma *et al.*, 2013). The different views of different groups of stakeholders, citizens, policy makers and researchers, can be 'mapped out' by involvement of respective representatives, and used as a starting point for further discussions (Ramos *et al*., 2014).

2.3. Authority

In this article we thus use a community perspective when we define social acceptance, involving people aiming for what is a better solution for ensuring long term quality and survival of a community. The term social acceptance refers to 'a community' and 'authorities' as examples of two distinguished societal roles. We are thus referring to a community, which often is set against the roles of authorities who regulate and set conditions for external companies who invest in wind energy, in marine areas. Still, depending on the context,

consumers, interest groups, citizens and experts can be influential to authorities, as they can contribute with different forms of knowledge (Renn, 2006).

Operating in different roles implies that people are expected to act differently and base their motives on different intentions. In general, 'community acceptance' is more open to cooperative behaviour than the market acceptance, which is centred around individuals (Walker et al., 2014). Within a community people can take different roles, for instance, acting as stakeholders or citizens (Soma and Vatn, 2010). To act as a stakeholder implies that certain values and interests with clear links to a particular context are enhanced, and particular rights are defended in strategic manners taking into account a person or a whole group with the same interest (Soma and Vatn, 2014). A citizens role would concentrate more broadly on identifying what can constitute a good solution for the society (Newig and Fritsch, 2009a, 2009b). When acting as a consumer or producer, people basically aim at optimizing profits or utility as defined by neo-classic economic theory (Atkinson and Stiglitz, 2015).

Authorities are influenced by who is represented through processes of engagement. Normative and political questions related with establishing procedures by which representatives are acknowledged to act legitimately on behalf of others — and of the society (Bell et al., 2005; O'Neill, 2001; Vatn, 2009). Representation also depends on transparent communication about which groups of people with different paradigms about what is right and wrong have been involved through processes of public engagement (Soma and Vatn, 2014).

Accordingly, in order to understand the extents to which public engagement can contribute to increase social acceptance it is important to critically evaluate assumptions about who is involved, and in which roles.

Based on the analyses in this section we arrive at three core questions of social acceptance; 1) what are the actual interventions? 2) how is new development generated through processes of engagement?, and 3) what are the accountability of authorities? These questions are central to the case study analysis in the following section.

3. UK Case studies

The geographical area of selected case studies with wind farm implementation projects is at a UK-level - including Wales, Scotland and England. The choices of these four case studies are based on their characteristics in terms of their present contributions to offshore developments, and the availability of literature on social acceptance to these areas in particular. They have been theoretically sampled on the basis of relevance, from the limited work that there has been so far on this topic. The cases are meant to be illustrative, rather than statistically representative in any way. They demonstrate the value of public engagement, and the impact that it can have on acceptance and opposition. It is important to reiterate that our aim is to demonstrate how public engagement can shape social acceptance, and can increase the accountability of decision-making. In this sense, we are basing our descriptive analyses on social acceptance experiences on a selection of these four case studies, and a discussion of some of the key issues that they highlight which we suggest will be relevant as this sector moves forward.

3.1. Brief outline of the case studies

The UK is among the core European countries which have ambitious targets for the generation of renewable energy, in part dependant on offshore generation, and has experienced lack of social acceptance towards extensive of offshore windfarms. Consequentially, empirical case studies have been conducted to explore implications with social acceptance in this area. In this section we therefore collate and review the emergent empirical experiences of social acceptance and public engagement for four offshore wind farms in the UK, drawing out the points of importance from each and across the case studies (Gwynt-y-Mor, Lincs, Triton Knoll, Robin Rigg), see Figure 2.

Figure 2: Map of the four UK offshore wind farm case studies

The societal experience contributions stemming from the four offshore areas called Robin Rigg, Gwynt-y-Mor, Triton Knoll and Lincs, are briefly introduced in Table 1.

Table 1. Some core characteristics of four offshore wind farms in the UK

Characteristics	**Robin Rigg**	**Gwynt-y-Mor**	**Triton Knoll**	**Lincs**
Key research references	*Brack, 2010*	*Haggett, 2008*	*Aitken et al, 2014*	*Devine-Wright, 2011*
Status	Operational	In progress	In progress	Operational
Country	England/Scotland border	Wales	England	England
Number of wind turbines	60	160	288	75
Power (MW)	180	576	600-900	270
Area (km^2)	12.5 (km long)*	80	120	35
Years of implementation	2009-2010	2008-2015	2013-2015	2010-2013
Distance to coast (km)	11	18	33	8
Level of social acceptance (high/low)	low	Low	high	high

**Turbines are situated in a 12.5 km long row*

3.2. Main patterns of societal experience of offshore wind farm practices

Our first case study is of the Robin Rigg, in the Solway Firth off the north west coast of England/south west coast of Scotland (Brack, 2010). While it straddles the border between England and Scotland, the wind farm is the first offshore in Scotland, and the 60 MW turbines became operational in 2010. This case demonstrates a typical case lacking community acceptance, and validity of local knowledge and experience; and therefore illustrating the importance of having processes which allow it to be captured. Developing offshore might intuitively seem to offer vast spaces in which to site turbines; but once a whole host of technical and economic contingencies have been taken into account (wind resource, depth of sea bed, accessibility of the site, nearest

suitable onshore infrastructure and so on) those potential areas become substantially smaller. In the UK, based largely on these criteria, different areas have been released in which developers can apply to build. This has resulted in relatively concentrated areas of offshore wind farms in some locations around the UK.

This means that cumulative impact may become a critical issue, and possibly a substantial challenge for integrated decision making. It also means that people very often have experience of wind farms from seeing those already in existence, and that they transfer this experience when thinking about a new application. The response by some of the people local to the Robin Rigg offshore wind farm illustrates this. The surrounding area is home to some of the first wind farms in the UK, and because of the favourable wind resource, there are numerous wind farms already sited there. The nearby coast between Carlisle to Barrow-in-Furness (a distance of 142km) includes 11 wind farms, with clear views of at least 85 turbines.

For Robin Rigg wind farm, the impact of this cumulative effect was clear. In research, local people both felt that their area had reached 'saturation point' and had 'had enough' wind farms; and moreover, because they had experience of some of these turbines not working, felt that any benefits of having wind farms were minimal when compared to the costs. Concern then was at times not necessarily directed towards the Robin Rigg wind farm per se, but towards the development of 'yet another' wind farm in what was perceived to be an overcrowded area. In the new situation common property right at sea was replaced by private exclusive property rights, giving traditional users limited access. The participants here did not lack information, but were in fact very familiar with what it means to live near a wind farm. Their objections are not based on irrational fears but on their knowledge and experience of what being near a wind farm is actually like; and then applying this to the new proposal.

Also challenges related with cooperation were identified in this case study. The role of consultation in mitigating these issues was in this case very weak. For example, for Robin Rigg, a considerable proportion of local people did not even know that there were consultation events to which they could attend, let alone having contributed to them. The impacts of the different forms of consultation (section 3.3)are in this case demonstrated in practice. Of those who had been involved in some way, most felt that there was less consultation than they would have expected (methods included public meetings; consultation with a local fishing co-op and local harbour community, and an exhibition in the local library). Many people felt the consultation was carried out too late, and should have been done when it was possible to still influence plans in some way, and that it should be ongoing – there was a feeling that all the decisions had already been made. These concerns about timing led directly into cynicism and scepticism about the consultation, and the decision-making processes more generally; and notably into a lack of socio-political acceptance. Distrust was reported in the information that people had received. For example, there was a belief that information distributed about the impact on local bird life or the size of the turbines had not been truthfully reported. Many felt that consultation was a 'box to be ticked' rather than an exercise to really engage with the local community and develop a dialogue about the development. These results demonstrate that the timing, content, and processes of consultation can exacerbate or even create opposition in many cases. Some local people felt that basic awareness raising and consultation were not enough because they had not had an opportunity to express their views, that decisions had been made, and that the consultation had been inadequate – and this was directly leading to opposition to the wind farm itself (for a fuller discussion, please see Brack, 2010).

Another example of challenges relating with cooperation, when weak consultations of a wind farm impacted community acceptance, is the second case considered here, that of the 'Gwynt-y-Mor wind farm' off the coast of north Wales. Currently under construction, it will have 160 turbines, spread across an area of 80 square kilometres, and with an installed capacity of 567MW. It was not well received; and lack of engagement was one of the points of opposition (Devine-Wright and Howes, 2010; Haggett, 2008).

The concerns in this case include issues such as visual impact, cumulative effect (with three other offshore wind farms permitted or build along the same stretch of coast), and worries about the impact on tourism on communities which absolutely depend on substantial volumes of tourist income. In this sense it also represents a case with lack of market acceptance. For example, the coastal town of Llandudno generates a fifth of all the tourist income in Wales, and is world renowned for its archaeological reputation. The Gywnt-y-Mor wind farm will be visible from the famed Victorian promenade, and some local people had concerns about the scale of the change and the impact that it would have. The fair was that the common access to the marine areas beneficial to a community at large would be hampered by private property rights of one developer. The consultation

processes did little to allay these fears; and indeed, seemed to in some cases make them worse. For example, as part of the public engagement processes, there were developer engagement events, open to local people; however, at least some of these were run by representatives from London, which helped to give an impression that the company did not know about the local community; and it was felt by some attendees that their Welsh town would be suffering a disadvantage for a British or English gain. Producing brochures about the development in Welsh and English was felt to be a 'PR sop' rather than an indication of a local character to the proposal. Information events were perceived by some local residents to be aimed at telling them about the project as a matter of awareness raising, rather than eliciting views or attempting to respond to them in a more empowering mode of public engagement. This made some people feel ignored; and raised what they felt were important ethical issues about the project and the process. Kempton *et al.*, (2005:126) note in research about the Cape Cod offshore wind farm, off the east coast of the USA that perceived 'unfairness and inadequacy of the permitting process' was a factor in opposition, and this seemed to be a repeated pattern in Wales.

There are also examples of where public engagement was able to positively influence social acceptance. For instance, our third case study, the Triton Knoll wind farm, illustrates the positive impacts of ensuring community acceptance through engaging with local people enhanced through cooperation. This is a wind farm proposed off the east coast of England, approximately 32 km from the coast of Lincolnshire and 45 km from the coast of North Norfolk. Aitken *et al.* (2014) highlight that public engagement may not always be centred upon the wind turbines, and for Triton Knoll, much of the focus of the engagement conducted by the developer was on the location of where onshore substation would be. The issue here is about the extent and use of public consultation. Wide ranging methods were used by the developer, including exhibitions; consultation with local authorities and statutory consultees; a newsletter; open floor hearing; feedback forms; and submission of written comments. This was followed by non-statutory consultations with local communities via questionnaires to identify and further reduce potential locations for the substation. Importantly, the developer describes the rationale for conducting engagement and using a wide range of methods to do so, stating that consultation should be used to inform, provide an opportunity for local people to have a say, and, crucial to cooperation – empowerment by *using the responses to help shape the project*. Indeed, as Aitken, *et al*. (2014) found in their research on this case study, early consultation with local authorities and statutory consultees served to reduce the number of potential locations for the onshore substation, and formal pre-consultations with communities and subsequent modifications indicate that the communities have exerted some influence on the future application and the decision about the substation. In this way, the case study also represents a case with socio-political acceptance. This public engagement had a positive impact on social acceptance because it was used to help making a better project. It also ensured that traditional common access to these marine areas were not replaced by exclusive private property in these areas.

Another example of when the processes of engagement have had an impact on social acceptance is the research carried out by Devine-Wright (2011) on the Lincs Offshore Wind Farm. This is situated off the east coast of England, and is a 270 MW project of 75 turbines (Devine-Wright, 2011). The wind farm is situated 13 km from the popular seaside resort of Skegness, and the nearest ports are Great Yarmouth and Grimsby. Construction started in 2010, power was first generated in August 2012, and the wind farm was officially opened in August 2013. Devine-Wright (2011) discusses the way in which there was a lack of public opposition, and the lack of an organised protest group. This was not simply because offshore wind farms are 'out of sight, out of mind' – far from it. Building wind farms offshore means that the same issues as onshore are relevant, they just manifest in a different way. For example, visual impact is still a prominent issue, even out at sea, in a structureless landscape with little else to masque the impact; key stakeholders are still important, but they will be shippers and fishers rather than farmers for example (see Haggett, 2011 for a full discussion). The learning contribution of the Lincs offshore wind farm and the lack of opposition is the processes of engagement. This case study illustrates that it is possible to identify affected communities, even with proximity challenges. It also shows that the property right challenge can be dealt with through public engagement.

As we have discussed, strategies of developer engagement to encourage cooperation and integration and enhance good governance are critical in informing public acceptance (Aitken *et al.*, 2014). Devine-Wright (2011) documents that in this case of the Lincs offshore wind farm, the developer engagement was early and extensive. Critically, he points out that it involved a local intermediary in the area, who was active, employed a range of methods to engage the public, and worked to build trust about the development and developer. This included activities such as finding locally relevant projects that could benefit from funding support; involving locally important stakeholders in the engagement processes (such as local wildlife trust, who were not a

statutory consultee), and getting involved with projects that mattered 'on the ground'. As Devine-Wright's (2011) analysis suggests, developing good relations with stakeholders who were likely to have an influence on local opinion, funding locally specific but important projects, working to build trust and involving locals understood as knowledgeable and concerned about the local communities, have been shown as critical factors to obtain social acceptance in this case, as well as in the other UK case studies.

4. Discussion

In order to achieve social acceptance, public engagement is often promoted to allow people to take part in new policy arrangements and decisions that will affect them (Aitken, 2010b; Haggett, 2011). Calls for participatory processes related *inter alia* to policy implementation issues have been put on the international agenda several times. For example, the United Nations Conference on Sustainable Development (Rio+20) emphasizes: 'We underscore that broad public participation and access to information and judicial and administrative proceedings are essential to the promotion of sustainable development' (United Nations, 2012: principle 43, p. 14), and moreover, 'we acknowledge the role of civil society and the importance of enabling all members of civil society to be actively engaged in sustainable development' (United Nations, 2012: principle 44, p. 14). This has implications for public opposition against what the actual interventions are, which depend on 1) how the new development is generated through processes of engagement, and 2) accountability of authorities. These core issues are discussed in the following.

Firstly, while there are a number of issues which affect the development of offshore wind – visual impact, onshore impacts, cumulative impact – how much these matter and the extent to which they affect social acceptance (both of that wind farm, and of others) depends to a large degree on the opportunities for engagement available. The UK offshore case studies have taught us that social values are apparent at sea, alongside the private interests of economic development, which need to be integrated in policy making (Aitken et al., 2014; Brack, 2010; Devine-Wright, 2011; Haggett, 2008). They have also shown how public engagement with representation of different values throughout planning processes are impacting developments at sea in positive manners, through cooperation. Exclusion of often well informed citizens, with concerns for a community at large, can lead to distrust, feeling of being ignored and unfairness. The case studies clearly demonstrate the importance of community acceptance, while illustrating that it is not always appropriate to distinguish with socio-political and market acceptances in practice, because they often appear at the same time in same places. This is because local people do not only provide local knowledge about what would suit the community as a whole. They also involve local business interests urging market acceptance, and local claims for socio-political acceptance, for instance, when public authorities take the lead in defining rules of property rights for new activities (Haggett, 2008). When changing environmental policy and user rights, this have an impact on what people assume to be their rights. Ignoring their appearance and excluding these groups from decision making processes and dialogues is the same as avoiding opportunities for mutual benefits (Woolley, 2010).

Through the UK case study discussions, the emphasis has been on the importance of public engagement to identify and address relevant issues and increase the likelihood of social acceptance. Research by Aitken, *et al.* (2014) has found that engagement 'matters' – this means giving people an opportunity to express themselves, having open, inclusive and transparent processes, and building relationships. It matters because of the rights that people have; because they may have their own expertise upon which it is valuable to draw; and because involving people is more likely to lead to better outcomes, a better project, and greater acceptance (Devine-Wright, 2011). It may not always be the case that people will support a project, even if there are excellent opportunities for involvement – there may be something about which they cannot agree. For instance, the UK case studies demonstrate that in spite of the extra time, money, resources involved because of public opposition (Gwynt Y Mor went to public inquiry), acceptance may not 'matter' – Gwynt Y Mor was approved, even with local opposition to it. Still, good engagement processes are important not just in relation to a particular project. It appears that when taking care about the local community in processes that are open and fair, attempting to achieve mutually beneficial outcomes, this will affect the industry as a whole and influence how people will view subsequent applications for blue energy projects (Brack, 2010; Devine-Wright and Howes, 2010).

The reasons for why intensive public engagement may not ensure social acceptance can be explained theoretically by low levels of representation, responsibilities and/or transparency through decision making processes, as well as lack of accountability of authority (Soma *et al.* 2015). From a more empirical perspective, it may as well be explained by too simple public engagements, for instance, a ticking of a 'to do' list. In any case, such a situation would most probably lack trust among the different actors. The reasons for lack of trust can be many, as indicated by the case study section, generally linked with inappropriate timing or consultation among different parties. Such a situation has a strong ethical dimension, but it will also result in large future societal costs (Covey, 2006). These costs are not only to be paid by a community who lacks expected future opportunities, but also by nation-states who must cover some of these costs. In addition, future projects who must start where the previous project failed, may fail as a consequence. Eventually, such lack of social acceptance can have large environmental costs as well, if future projects beneficial to the environment fail. Adding all these costs may support the argument that investing in social acceptance is a relatively cheap option.

It appears that engaging the public is not as straightforward as it might sound. Just talking with people will not automatically result in trust and support and increased social acceptance. The different calls for public engagement frequently suffer from not clarifying who exactly the public is, and which part of the public should be represented (Aitken *et al.*, 2014; Haggett, 2011). This has led to misunderstandings in practice, especially the confusion of the people with a context dependent stake (stakeholders) and the general public (citizens), who both are involved to represent social concerns, even though they may represent completely different fractions of a society (Soma and Vatn, 2014; Wüstenhagen *et al.*, 2007). Stakeholder engagement is not just about 'talking with people', but is based on a broader understanding of particular factors to which attention needs to be paid.

In particular, the case studies demonstrate that public engagement should be done in time to make adaption to original plans possible. Offshore locations do not imply developments far away and with no interest in them, and so efforts should be made to identify interested societal groups and to involve them in time. It is about engaging local people – not solely informing them, allowing two-way dialogues with everyone has the chance to inform about particular expertise and interest. The case studies show that local community representatives are often right when they inform, for instance, of high costs compared with low benefits due to broken wind mills in already established wind farms and ecosystem impacts of, for instance, bird population, among others.

In practice, public engagement often comes too short by simply conducting public hearings, which are regulated, formal arrangements for stakeholders who can give evidence or ask questions to public authorities about decisions under consideration (Rowe and Frewer, 2000). Other engagement possibilities exist, such as, among others, focus groups (van Asselt and Rijkens-Klomp, 2002), mediation (Rauschmayer and Wittmer, 2006; Smith, 2003), Delphi processes (Linstone and Turoff, 2002), citizens juries (Escobar *et al.*, 2004), consensus conferences (Blok, 2007) and planning cells (Dienel, 2011), which can compose better choice of method depending on the particular context. Good public engagement depends on having the insights to choose the right strategy for the particular policy issue. Knowing the appropriateness of the different public engagement approaches to specific contexts can be critical to the extents to which outcomes are socially acceptable.

Secondly, our case studies demonstrate that the timing, extensiveness, and use of the results of public engagement can have a great impact on accountability of authorities (Haggett, 2008). Multiple variations in contributions and contexts of participatory planning do not necessarily result in one final advice, as there is no 'neutral' setting for public decision making when the complexity is high. To achieve accountability, there is a need for addressing the diversity of either positions, interests or aspects; and/or focus on convergence of interests and uptake of conclusions, decisions or any other output (Varjopuro *et al.*, 2008). This is to create the right conditions for creativity and collaboration, to address possibilities and to find synergies which can advance and improve marine policy processes and outcomes. The importance of defining relevant goals by showing an overview of what objective is relatively more important to whom, represented by a diversity of actors is central to such approach. Investments in such a process of 'mapping out' can be necessarily before a closing down phase can take place, as a context relevant benchmarks for dialogues aiming at identifying a common vision and acceptable solutions to affected actors, including the social dimension alongside with the economic and environmental ones (Soma et al., 2013). Such acceptable solutions can be understood as a 'synergy', with outcomes which are more than the aggregate of the individual shares (Agranoff and McGuire, 2001). While compromise is a low form of synergy, a higher form of finding compromise can be achieved if the

process is based on sound principles and commonly understood future perspectives. Obviously, to be successful in such a strategy, dialogues must be based on trust, inclusiveness and fairness, and cooperative creativity as well as value differences must be applicable.

Our research suggests that good practice in engaging the public is always important, not least because of the subsequent impact on perceptions of other wind farms. While good engagement is certainly not a 'magic bullet' that leads directly to acceptance, it matters because of the way in which perceptions of one wind farm have implications for the image of the wind energy industry more generally.

Looking ahead, different forms of renewable energy are developing in marine spaces, contributing to the Blue growth. Wind farms, on and offshore, have encountered opposition, in large part because assumptions were made for the early wind farms that they would gather public support – who wouldn't support clean, green energy? – and which led to poor planning and engagement processes for them. New wind farms very often carry a negative image from previous wind farms with them now, which is why good engagement matters even more. But there are other marine developments, and wave and tidal energy devices are starting to move from prototype to small and medium scale machines and arrays.

The Blue growth offers a very exciting time for these innovative technologies; but it is important to learn the lessons from on and offshore wind in the development and planning processes. It should not be assumed that people will automatically be in favour; but wave and tidal technologies do not perhaps have the same negative connotations that wind farms very often now do. There is a chance to 'start with a clean slate' for the implementation of wave and tidal, and make sure that the processes – from the very start – are ones which engage and encourage people, and earn their support. They represent a real opportunity to do things differently – and better. This means ensuring that local context is taken into account, that there are locally specific plans which acknowledge local contingencies and circumstances and show a consideration for them; and that the often inter/national advantages of renewable are balanced against local disadvantages. There is also the potential to create energy-aware communities, who host these novel new technologies, and which bring a range of holistic benefits with them – from community income to jobs to infrastructure to civic pride. All of this requires that local people are involved from the start, in ongoing relationships, to find out what matters in any particular place. For example, off the Scottish coast of Lewis, a series of wave devices are planned. These are currently at the testing stage but will be in an array along the coastline. The developer, knowledgeable about the local area, realised that the coastline was overlooked by a number of crofts (small, family run farms which are passed down through generations of family members is an important part of Scottish rural life, heritage and culture). The developer held a series of meetings with the crofters and other local people, and in the emerging dialogue, the layout of the array was changed. Aitken *et al.* (2014) demonstrate the importance of developers asking questions, listening, and where possible taking action on the formation of acceptance and opposition, and this appears to be a very good example of precisely that.

5. Concluding remarks

The EU is promoting sustainable growth of maritime and coastal activities, as well as sustainable use of coastal and marine resources (European Commission, 2013, 2012). In these developments, the blue energy plays a major role promoted by the European Blue Growth Strategy. Challenges are attached to the new developments of offshore wind energy because they are hampered by lack of social acceptance.

In this article we have aimed at exploring how public engagement can shape social acceptance in practice. A descriptive analysis of 'social acceptance' is conducted. The theoretical insights reflect on how to define social acceptance. We specify that it depends on three core dimensions of; 1) what the actual interventions are, 2) how the new development is generated through processes of engagement, and 3) accountability of authorities. Because our focus is community based we have defined social acceptance as; 'agreement and justification of shared rules by a community in terms of what is accepted intervention, how development is generated and who is entitled to make rules'. Furthermore, social acceptance offshore is due to specific challenges related with defining which community should be involved in public engagement (see also case study from Devine-Wright's work on the Lincs offshore wind farm), dealing with existing common property rights at sea (also illustrated in the Devine-Wright case study) and avoiding inappropriateness of 'nimbyism' assumptions (see

559 Robin Rigg case study). Public engagement can imply interaction in the forms of basic awareness raising,
560 consultation or empowerment efforts.
561
562 The implications of engagement in practice are illustrated across four off-shore wind farm case studies in the
563 UK, including Scotland, Wales and England (Brack, 2010; Haggett, 2008; Aitken et al, 2014; Devine-Wright,
564 2011). The case study experiences are highly relevant to ongoing marine developments in a European marine
565 context. The main conclusions from the four UK cases are that the lack of social acceptance can be explained by
566 factors such as cumulative and visual impacts, impacts on other sectors (such as tourism), exclusions from
567 areas and planning processes, distrust, among others. Persistence of social acceptance has been shown as a
568 matter of intensive and early timing of public engagement, use of involvement to shape wind farms, and focus
569 on what is important to a local community, among others. A possibility not discussed, which needs more
570 attention in future research, is to deal with private property implications at sea by simply involving the affected
571 communities in ownership of new wind farms offshore. Also the issue of simply providing community benefits
572 in terms of compensation needs more attention in future research (Walker et al, 2014). We argue that the
573 costs of a lack of social acceptance can become very high in terms of community, governmental, market and
574 environmental costs, supporting the argument that investing in social acceptance can be a 'cheaper option'.
575
576 A public engagement strategy needs to be defined in such a way as to represent the relevant context
577 dependent stakeholders, market dependent consumers and general citizens, and define goals through
578 transparent and accountable processes. Conducting participatory processes is not just about including people,
579 but to enhance the representation and responsibilities of different societal actors such as stakeholders,
580 citizens, experts and policy makers (Soma *et al.*, 2015).
581
582 The experiences made of social acceptance should be taken into account in future innovations for blue energy
583 at sea, including the wind farms, but also wave and tidal devices and other technological developments.
584 Engagement matters because context dependent stakeholders, market dependent consumers and the general
585 citizens may all have their own expertise upon which it is valuable to draw, and because involving people is
586 more likely to lead to better outcomes, better projects and greater social acceptance if the processes for
587 development are deemed to be fair.
588
589

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