Embedding an evidence-led, best-practice culture of engagement: learning from the evidence

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Caitlin Hafferty

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Natural England Project manager

Beth Brockett (beth.brockett@naturalengland.org.uk)

Contractor

Countryside and Community Research Institute, University of Gloucestershire

Author

Caitlin Hafferty

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Further information

This report can be downloaded from the Natural England Access to Evidence Catalogue: **http://publications.naturalengland.org.uk/** . For information on Natural England publications contact the   Natural England Enquiry Service on 0300 060 3900 or e-mail **enquiries@naturalengland.org.uk.**

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Executive summary

We define engagement for the purposes of this document as: **A process whereby individuals, groups, and/or organisations choose to take an active role in decisions which affect them** (after Reed 2008).

Public engagement is key for making better quality decisions for more sustainable outcomes. Through effective and inclusive engagement, we can work to empower voices which are often marginalised in scientific and policy decision-making. This report provides the evidence behind what engagement is and why it is important, what the benefits are, the potential risks of "poor" engagement and how to mitigate them, how different "types" of engagement can provide useful classifications for practitioners, and how practitioners can use theory (different ways of thinking and knowing) to inform best practice. This includes consideration of the impact of the coronavirus (COVID-19) pandemic on how we engage in an increasingly digitised world.

This report shows how the available evidence can be used to inform best practice engagement strategies, frameworks, standards, models, methods, toolkits (and so forth). One central message in this report is that "best practice" engagement and its outcomes will vary between different situations. Practitioners should recognise that the quality of the process and outcomes will change depending on the purpose and objectives for engaging, as well as organisational cultures of engagement, institutional capacity, wider socio-economic and political contexts, and the characteristics of participants.

Key tips:

1. Engagement is a process not just an activity.
2. Take time to understand the local context in which engagement is being carried out.
3. Engage stakeholders in dialogue as early as possible in the decision-making process.
4. Recognise the importance of integrating local and scientific knowledge and implement this in practice.
5. Manage power dynamics effectively, for example by using skilled facilitators who can help marginalised voices be heard and build trust in the process.
6. Think about the length and time scale of the engagement process and how often it might be necessary to engage with participants.
7. Recognise that different (digital/remote and in-person) tools and approaches for engagement will work differently in different situations.
8. Engagement coordinators need to manage participants' expectations of the engagement process.
9. There are risks to engagement, some of which can be managed or mitigated.
10. Frameworks for engagement need to be institutionalised within organisations as a culture of engagement.

Contents

Foreword

This report summarises transdisciplinary evidence for best practice public engagement in environmental decision-making processes. Specifically, this is aimed at engagement coordinators (e.g. policy makers, practitioners, and practice enablers) who aim to involve various participants (publics and other stakeholders) with environmental planning and other environmental decision-making processes. This includes participatory research in the natural and social sciences but does not specifically include partnership working (although some learning is relevant). The report provides an up-to-date evidence-base, derived from robust UK and international research, upon which an engagement culture, vision, and strategy can be built. It includes consideration of the impact of the coronavirus (COVID-19) pandemic on technology adoption and inclusive engagement strategies. Recommendations for public engagement are then outlined, which are relevant to organisations seeking to embed an engagement culture, or practitioners seeking to undertake best practice engagement.

Natural England regularly commissions a range of reports from external contractors to provide evidence and advice to assist in delivering its duties. The views in this report are those of the authors and do not necessarily represent those of Natural England.

Natural England commissioned this as part of our work to implement the Natural England Science, Evidence and Evaluation Strategy. We will use the learning to support embedding an evidence-led, best-practice culture of engagement within the organisation.

1. Review of the evidence

Public or other stakeholder engagement is key to making better quality decisions for more sustainable outcomes. Natural England's Mission is to work with a wide range of people and organisations to take the action required to rebuild a sustainable environment. Natural England engages to inform policy and develop management strategies, for social science research, interpretation, visitor engagement, implementation of policy tools, and for many other reasons. There is a wide evidence base Natural England and other organisations can use to inform discussions around developing an evidence-led, best-practice engagement culture.

This review was conducted over three stages. Firstly, a review was conducted of existing documents and other information relevant to public and stakeholder engagement in Natural England. Conversations were had with a number of Natural England engagement practitioners to help locate and understand this existing material. Secondly, a review of the academic literature (and relevant policy documents) was conducted. Thirdly, the review went through a series of iterations so that adjustments could be made based on the comments of Natural England practitioners. This was to make sure that the information in this review was accessible, useful, and relevant to Natural England engagement practitioners and practice-enablers.

1.1 Clarifying terminology

It is important to be clear about what we mean by the key terms used in the report. This is because definitions relating to "public engagement" are complex and can change between different areas of research and practice, which can lead to confusion and even contradiction [1, 2]. For example, terms like "engagement", "participation", "consultation", "deliberation", and "involvement" are often used interchangeably. In this section, we create a common narrative to provide a coherent base of understanding for research, policy, and practice.

For this report we define engagement as:

A process whereby individuals, groups, and/or organisations choose to take an active role in decisions which affect them [3].

In the context of Natural England's work, this can include engagement for reasons of social science research, interpretation (of sites, for example), visitor engagement, implementation of policy tools (e.g. providing advice to land managers), and so forth.

The above definition can also include more *focused* engagement (e.g. with a specific project) where the involvement of specific stakeholders is sought; and *wider* engagement (e.g. a public awareness campaign) which includes the involvement of broader publics.

We consider "**the public**" as a broad term relating to anyone who is (or could be) involved in the engagement process (e.g. at a national or local level). Some authors use *citizens* to

refer to "the public" (e.g. *citizen engagement*), however this brief does not use this term (unless to make a specific reference) as it can be interpreted as exclusionary of non-citizen groups. It is important to use inclusive language to reduce the risk of disempowering, misrepresenting, or (further) marginalising people based on their citizenship status. The term **'publics'** refers to groups of people who share some common opinion, desire or interest, but who are not organised and may be dispersed. For example, the voting public, the sport-loving public etc.

'**Stakeholder**' is a term used to describe groups and individuals who can affect, or could be affected by, a decision – i.e. they have a *stake* in the process [3, 6]. Stakeholders can include members of the public and other groups, such as local authorities, businesses, charities, and other key organisations.

However, we recognise that the above definition does not cover all forms of 'engagement' that Natural England staff say that they undertake, including message communication and some forms of partnership working. Indeed, it has been argued that broad concepts of engagement are not very useful in application because they leave too much room for interpretation [3, 4]. As a result, more specific definitions have been proposed which consider "engagement" to be an umbrella term which includes the various types, levels, and methods of engagement [4]. Figure 1 shows one way of clarifying engagement as including different types of communication, consultation, and participation which are defined based on the flow of information between the engagement coordinators (e.g. practitioners, policy makers, researchers) and participants (the public or other stakeholders). However, while Figure 1 is one useful, simple summary, it does have some slight inaccuracies e.g., it portrays 'consultation' as information flowing from participants to sponsors, when in reality 'consultation' may seek responses to information provided by engagement coordinators [5]. In a later section (Different types of engagement: ladders, continuums, and wheels), this report covers some of the most popular ways of clarifying this terminology.
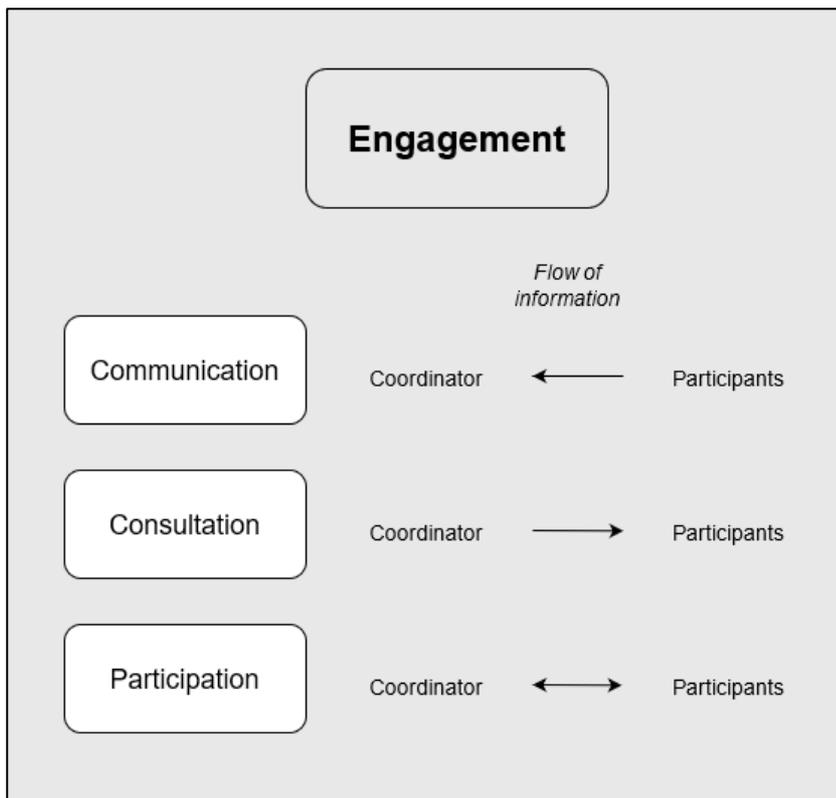
Figure 1. Showing three 'types' of engagement: communication, consultation and participation (adapted from Rowe and Frewer, 2005 p. 255) [4]. ©2005, SAGE Publications. Reprinted by permission of SAGE Publications.

1.2 The purpose and benefits of engaging

Public engagement is key to making better quality decisions for more sustainable outcomes. It is widely recognized that environmental issues are complex, dynamic, and multi-scalar, involving multiple stakeholder groups and different knowledge types. Numerous calls have been made to develop participatory environmental decision-making processes which are flexible, transparent, and inclusive of a diversity of knowledges and values [3]. Participatory practices aim to empower voices which are often marginalized in scientific and policy decision-making and are rooted in concepts of deliberative democracy [e.g., 7, 8, 9, 10].

There are many reasons and benefits for engaging the public or other stakeholders in decision-making. The UK is a signatory to the Aarhus convention, which commits us to ensure public *'access to information, participation in decision-making, and access to justice on environmental matters'* [11]. In the UK, the 25 Year Environment Plan (25YEP) acknowledges the importance of public and stakeholder engagement for monitoring indicators and achieving environmental goals [12]. The most recent UK Government Planning White Paper (Planning for the Future) proposes improved public engagement strategies through an emphasis on involving local communities in planning decisions, with a greater use of technologies to facilitate this [13].

Natural England's Action Plan states that nature belongs to everyone, and everyone should contribute to its recovery [14]. Natural England's mission is to Build Partnerships for Nature's

Recovery – to work with a wide range of people and organisations to take the action required to rebuild a sustainable environment. [14]. Natural England's Science, Evidence, and Evaluation Strategy aims to ensure that the best available evidence is central to all decision-making, delivery, advice, and risk assessment [15]. This informs our strategy to:

> "ensure effective, inclusive, and accessible **knowledge exchange** and integration of science into practice through **effective engagement**, allowing our own staff and others to make evidence-based decisions with ease and confidence; and to communicate our science and evidence effectively internally and externally." [15, page 5].

It is important to think about why we are engaging in the first place. It should not be assumed that the reason is 'obvious'. There are different motivations, principles and objectives for engagement which vary between different organisations, individuals and circumstances. This can sometimes create confusion and tensions when conducting engagement in practice, so it is important for practitioners and decision-makers to carefully consider their reasons and motives for engaging from the outset, including any potential risks [e.g. 2, 16, 17]. For example, what is the *culture of engagement* in the institution or organisations carrying out the process – how is engagement viewed, by whom, and for who's benefit? What types of knowledge or information are being sought and who is setting the questions? Are there any 'known' opportunities, barriers, or preconceptions which could impact the process? How do these questions change between different contexts, and what are the implications for decision-making?

Fiorino, 1990, provides one, widely adopted [e.g. 5, 16, 22], way of categorizing the benefits of, or the reasons for, undertaking engagement:

- **Normative** reasons *("people have the right to be involved in decisions that affect their lives")*, i.e., understanding engagement as a public good or as "the right thing to do". This focuses on the belief that members of the public have a right to influence decisions which affect their lives [8, 9, 100].
- **Substantive** reasons *("engagement helps to make better quality decisions")* focus on the benefits gained from incorporating more diverse knowledge and information into decision-making processes, therefore enhancing the quality of decisions and the evidence they are based on [101].
- **Instrumental** reasons *("engagement helps make decisions that are more legitimate, durable, and trustworthy")* focus on how engagement can improve decision-making outcomes, viewing it as a way to increase the legitimacy of decisions, and enhance the public credibility and trust of institutions [100].

There are **different benefits** associated with each of the main reasons for conducting public and stakeholder engagement**.** These include:

- If relevant stakeholders are included in decision-making processes, this can help make sure that the process is more **representative of diverse voices** and reduces the likelihood of people becoming marginalized. Engagement processes can also promote active citizenship, which has wider benefits for society [24].

- Engagement processes can help **empower stakeholders** through the co-production of knowledge and have the potential increasing participants' ability to use and implement this knowledge [25, 26].

- Engagement can increase the likelihood that environmental decisions are **sustainable, holistic, representative, and fair**. This can happen by recognizing that environmental issues are complex (i.e., inextricably linked with people) and appreciating the importance of incorporating diverse knowledges, values, and needs into environmental decision-making [3, 27].

- **Social learning** (i.e., when stakeholders and the wider public learn from each other) can be promoted through engagement processes. This is beneficial because it can help participants develop new relationships (and improve on existing ones). This can help prevent and resolve conflict, find new ways to work together, and improve feelings of trust and legitimacy [28, 29, 30, 31].

- Engagement can help produce better, more **robust** research or decision-making outcomes that are based on **higher quality information**. This is because engagement involves diverse (local) knowledges, values, and experiences *as well as* scientific information [32]. When decisions are based on more comprehensive information, this can help mitigate negative outcomes before they happen – helping to ensure better quality outcomes [33].

- When engagement takes a variety of local interests, ideas, and perspectives into account at an early stage (and uses them to inform the design of the engagement process), this can help increase the likelihood that **local needs and priorities** will be met by the decision-making outcomes [34].

- In some situations, engagement can help create a **sense of ownership** over the process and outcomes of decision-making amongst participants (e.g., local communities). This can help promote the long-term support of decisions and projects by stakeholders, potentially reducing implementation costs and increasing trust in engagement practitioners [27].

- If engagement is transparent, open, and fair (i.e., making a balanced decision considering diverse perspectives), this can help **increase public trust in decisions** and the institutions making them [27].

Participants' own reasons and expectations for engaging should also be considered where possible and appropriate [18, 19, 20]. For example, why do the potential participants want to engage, what do they consider to be a "good" engagement process, and what are their desired outcomes? Who is selected for engagement, and on what basis? These understandings can then be used to inform the engagement process and its evaluation. Participant views of the engagement process and motivation/s for engaging should be considered as legitimate and necessary as standard practice – to enable practitioners to co-design meaningful and resilient engagement opportunities with participants [18].

1.3 The risks of poor engagement and how to mitigate them

There are many well-evidenced benefits for public engagement [e.g., 17, 35, 36, 37, 38, 39], however there is no guarantee that these will be achieved in practice and there may be disillusionment amongst members of the public, other stakeholders, and public engagement practitioners if expected benefits are not realized. While there are examples of engagement processes which have led to better environmental decisions and more sustainable outcomes, there are also examples of when poorly reasoned, designed, and/or delivered engagement can cause unintended negative impacts [e.g., 29, 40, 41, 42, 43, 44]. A "poor" public engagement process can lead to disillusionment, conflict, and reduced trust amongst those involved (e.g., between the public and policy decision-makers) or a variety of other issues. **It is therefore important to think through possible risk factors early on and consider how they can be mitigated at the outset of the engagement process.** Arguably, if the risks can't be mitigated to a reasonable level then a decision needs to be made on whether the proposed approach can be changed or whether it is appropriate to engage on this issue, at this time.

If the potential risk factors are carefully considered, and steps are put in place to mitigate them, then this can improve the likelihood of a successful engagement interaction. The risks associated with public engagement can be *broad* and *underlying* (e.g. relating to all types of engagement), or *practical* and *context-specific* (e.g. relating to the resources that are available to facilitate the engagement process). Some of the main risk factors and considerations related to engagement are listed below, alongside some brief explanations of why they are important to consider.

1. Risk of participants viewing engagement as a 'means to an end'. If engagement is viewed solely as 'the right thing to do' (normative reasoning alone), this may limit what can be achieved within the process and the wider benefits for participants. Participants may come to believe that the decision has already been made and/or that their input will have little influence on the outcome [3, 2].

2. Legitimising decisions and exertion of top-down power. If engagement is being used solely to justify and legitimise existing decisions [45], via the exertion of top-down power and manipulation of the engagement process to achieve particular outcomes (e.g. by engineering public credibility and trust), then it may be viewed by participants as tokenistic and superficial. This can create mistrust and suspicion towards other decision-making and policy formation processes [e.g. 46]. The process is likely to fail to capture useful and relevant information for a sustainable outcome, as the scope for engagement is too narrow.

Top-down approaches to decision-making can result in the opinions of the local community not being properly considered and overruled by governing authorities. These approaches can also reinforce unequal privileges and power structures, which can lead to the (further) suppression and disempowerment of minority perspectives.

3. Not engaging participants early enough. Common goals and objectives for engagement should be agreed with participants before proceeding, or as early in the process as possible. This should ideally consider participants' motives for, views on, and experiences of engaging and the engagement process [18]. Engagement coordinators may also work to evaluate the engagement process with participants throughout, e.g. ensuring that the process does not deviate from participants' expectations.

4. Under-representing groups and individuals. Engagement processes may fail to be representative of wider populations who may want to have a voice in the process and/or could be affected by a project, decision, or policy [47].

5. Misbelief that there is a consensus in public opinion. Another risk factor comes from the assumption that there is a consensus in public opinion just waiting to be tapped in to through public engagement. Despite best intentions, there is no guarantee that engagement will lead to a common ground, shared objectives, and outcomes. Practitioners should be aware that public opinions and experiences can be highly complex, diverse, and uncertain [48]. Some level of tension can be predicted in some situations; diverse public opinion can be better anticipated by appreciating local contexts, situations, and identities [49].

6. Over-promising and under-delivering. Poor planning, technique, or implementation of engagement can lead to the process failing to meet its desired or promised outcomes [3, 50]. This can happen when practitioners have not considered the limits to their time and other resources, over-promising beyond what can be practically achieved, and/or not being transparent about the process or aspects of it. This can lead to loss of trust, disillusionment, anger, and suspicion amongst participants.

7. Requires specific knowledge and skills. Some engagement processes require specific knowledge and skills, which can prevent certain people from becoming involved (e.g. excluding people from highly technical, expert, or scientific debates). Different people understand environmental issues in different ways, so it is important to be able to speak to people using a common language – practitioners should aim to be well-informed about different 'takes' on the issue at hand or even whether it is the 'correct issue' to be focusing on. This can help build collaborative relationships with participants which are based on shared goals and objectives [51].

8. Process is complex and confusing. If engagement processes are poorly managed and facilitated, this can result in misunderstandings and confusion [52]. This can create delays and additional financial costs to the project, for example, where engagement interventions have become a "talking shop" and not focused on tangible action.

9. Participant fatigue. This can by caused by poorly managed engagement, e.g. when the process or specific activity goes on for too long (or does not go on for long enough) and/or uses approaches which take too long to understand. This is when participants start to think that their involvement has no clear benefits and will not be rewarding for them [53].

10. Not considering that different methods & approaches will impact engagement outcomes. There are diverse methods, tools, and approaches for engagement which can

lead to different experiences and outcomes, in different situations. Before selecting an engagement method, it is important to think about why you are engaging (the reason) and the context in which this will happen, including the people you will be engaging with [54]. This will help you identify the most suitable way to proceed. This is discussed further in section 2.6.

To summarize, although there are many benefits that can be derived from public and other stakeholder engagement, these interventions can also create a myriad of issues if not done well. Best practice engagement includes being aware of and managing the challenges which can 'open up' or 'close down' deliberative and democratic engagement [16, 45, 55, 56].

1.4 Different types of engagement: ladders, spectrums, and wheels

There are lots of different "types" of engagement which can lead to different outcomes. To help provide clarification and a structure for carrying out engagement, there have been numerous attempts to develop typologies (the "type" of engagement) that promote best practice engagement strategies [4, 57, 58]. Typologies for engagement are useful for practitioners because they provide a classification of what type of engagement can be carried out, what is involved, and what the outcomes (aims or objectives) might be. This can help define the role and expectations of both the participants and practitioners in the engagement process.

One classic example is Arnstein's (1969) *ladder of participation* [57] which conceptualizes different levels of participation as rungs of a ladder [Figure 2]. This model defines participation as a *continuum* of increasing levels of citizen involvement, with each "rung" corresponding to how much power citizens have to influence the outcome of a decision-making process. This was widely adopted as it clearly shows the difference in types of engagement as they relate to participant involvement, showing that participation can be 'bottom up' or 'top down'. However, Arnstein's ladder is now widely considered to be outdated [59, 60] because it views participation as having a structural hierarchy which views citizen (public) control of the decision-making process (the highest rung of level of participation) always as the ultimate aim. Whereas, the evidence shows that there are lots of reasons why "higher levels" of participation can result in negative outcomes if they are deployed in unsuitable situations, including *less impactful decisions* and *adverse impacts for participants*.

The types of engagement chosen to support best-practice engagement strategies can (and should) vary considerably between different contexts, **demographics, and purposes** [17, 54]. For example, (top down) "one-way provision of information" or "consultation" techniques are appropriate in some situations and can result in beneficial (and impactful) decision-making outcomes, even though these are positioned towards the "least impactful" or bottom rungs of a ladder.

Since Arnstein's model was introduced, there have been numerous attempts to redesign it [e.g., 58, 61, 62], however many of these still retain this hierarchical view of participation. For example, the International Association for Public Participation (IAP2) updated Arnstein's ladder to create a *spectrum of public participation* [63] [Figure 3]. However, this model still employs the concept of low to high "levels" of participation (described as "increasing impact on the decision") and therefore is implicitly linked to hierarchical approaches, which is problematic, as explained above.
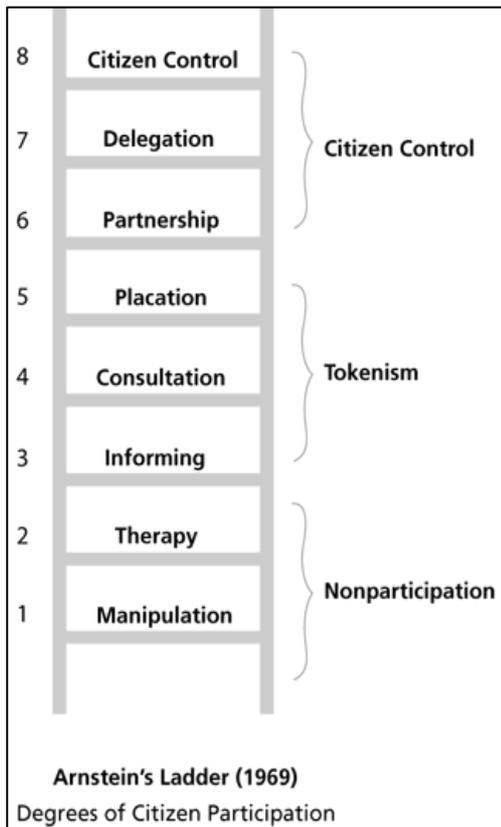

Figure 2. Arnstein's ladder of participation (1969). Arnstein's ladder defines different "rungs" of participation from low to high levels [57]. © American Planning Association, www.planning.org/. Reprinted by permission of Informa UK Limited, trading as Taylor & Francis Group, www.tandfonline.com on behalf of American Planning Association.

IAP2 Spectrum of Public Participation

IAP2's Spectrum of Public Participation was designed to assist with the selection of the level of participation that defines the public's role in any public participation process. The Spectrum is used internationally, and it is found in public participation plans around the world.

INCREASING IMPACT ON THE DECISION →

	INFORM	CONSULT	INVOLVE	COLLABORATE	EMPOWER
PUBLIC PARTICIPATION GOAL	To provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities and/or solutions.	To obtain public feedback on analysis, alternatives and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed.	We will keep you informed, listen to and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives developed and provide feedback on how public input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

Figure 3. The IAP2 Spectrum of Participation. The International Association for Public Participation (IAP2)'s Spectrum of Public Participation defines different levels of participation based on the public's role, from inform (lower levels of impact on the decision) to empower (higher levels of impact on the decision). This is intended to be a global standard of public participation [63]. © International Association for Public Participation www.iap2.org. Reproduced with permission from IAP2 International Federation.

To address these criticisms there have been numerous attempts to remove concepts of "ladders" and "levels" of participation from popular thought in academia, policy, and practice [17, 59, 60]. Instead, typologies have been developed which take more pragmatic, nuanced, and descriptive approaches to understanding public engagement. These emphasize the importance of **context** in the design, process, and evaluation of public engagement strategies. This helps engagement practitioners to understand how the process is 'fit for purpose' with regards to the engagement situation (e.g., its purpose, objectives, and inputs) *as well as* the wider institutional, political, cultural, and environmental contexts.

Another recent example uses the metaphor of a "wheel", with inner and outer dials, which can be "spun" to create different combinations of agents (those who initiate/coordinate the process) and processes (modes of engagement, including for example one-way communication and co-production) [17]. This *wheel of participation* [Figure 4] offers a

comprehensive and rigorous alternative to other typologies by enabling users to select any combination of interchangeable engagement types, rather than attempting to characterize different types or *levels* of engagement as separate from one another. This is arguably a more pragmatic and workable approach for policymakers and practitioners, as this model allows the engagement coordinator to select the most appropriate type of engagement for the purpose and context in which engagement is needed [17].

Figure 4 shows how public engagement is impacted by, and can be adapted to, the context and purpose in which it is needed. Engagement coordinators can use this way of thinking to inform best-practice strategies. For example, typologies can help practitioners take into account why (and where) engagement is being carried out (who is involved and on what scale), the aims and objectives (for both coordinators and participants), the tools and methods for carrying out engagement (and which work best), and how the process is evaluated (how 'successful' engagement is judged). This way of thinking can be used to form a basis for best-practice engagement and underpin the recommendations made in Section 3.
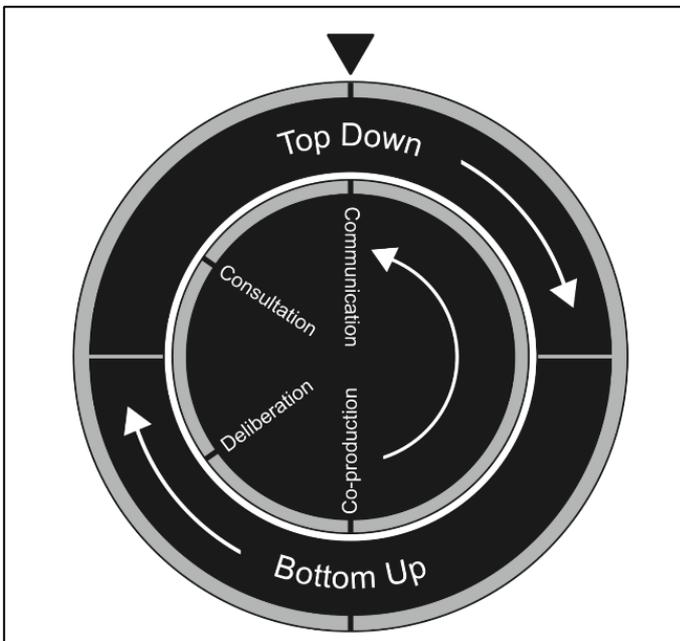
[17]   **Recommendations for best practice public engagement**

Figure 4. The wheel of participation. The wheel of participation defines different types of stakeholder and public engagement. Rather than viewing types of engagement as a hierarchy from low to high levels, the wheel of participation can be used to adapt engagement strategies to the purpose and context in which it is needed. Reed et al. 2018 [17]. © 2017 Society for Ecological Restoration. Reprinted by permission of the publisher, John Wiley and Sons.

To summarize, typologies are a useful way of classifying different types of engagement. Evidence suggests that best practice engagement strategies should move away from "ladder" or other directional/hierarchical typologies, which assert that we should move up through a series of "levels" or "stages" of engagement. Instead, public engagement should consider the range of approaches and be flexible and carefully adapted for different contexts and purposes. This can be achieved by developing an understanding (through accumulation of evidence) of why some types of engagement might work in some contexts or at certain points in the process, but not in others – we need to understand and use evidence to inform practice.

1.5 How we can use theory to inform best practice

There is a difference between engagement *typologies* (e.g. Figures 2-5) and engagement *theories*. The *type* of engagement is a description – by this, we mean it does not explicitly take into consideration *why* certain types of engagement might lead to different outcomes in different situations [17]. It is important for practitioners to recognise this distinction and use *theory* to help inform best *practice*. Engagement *typologies* describe the "type" of engagement that practitioners are going to be carrying out (which can change depending on the decision-making context), and engagement *theory* can help explain why different *types* of engagement might work in some situations (and not work in others). We can use these theoretical understandings, which have been empirically tested, to directly inform how we can carry out best practice engagement in different situations.

We can use theory to help explain which different types of engagement work, and why this is. Practitioners who are designing an engagement strategy can take a theoretically-informed, evidence-based approach to significantly improve the outcomes of environmental decision-making processes [17]. One useful and well-tested theory of participation has been developed by Reed *et al.* (2018) which states that the outcomes of public engagement in environmental decision-making can be explained by four factors – *context, design, power dynamics, and scalar fit* [17].

1. Context

The evidence shows that *context* is important to consider because the outcomes of engagement processes are impacted by the socio-economic, cultural, political, and institutional contexts in which they are carried out [17, 27, 28].

2. Design

Several different *design factors* can increase the likelihood of engagement leading to positive outcomes. For example, if one of the goals of engagement is to be inclusive and representative of participants' views, the design can achieve this through its structure and the careful selection of methods. Design factors will vary across a different contexts and demographics [27].

3. Power dynamics

The effective management of *power dynamics* (e.g. through skilled facilitation and mediation to ensure all voices are able to speak and be listened to) leads to more desirable outcomes [28].

4. Different scales of engagement ('scalar fit')

The outcomes of engagement processes can vary considerably depending on the *spatial scale* at which it is conducted (e.g. national, regional, local). 'Good' engagement processes should be designed to fit the relevant scale at which it is being carried out [e.g. 75].

To summarise, public engagement strategies which are theoretically-informed and based on evidence have more potential to achieve better, more sustainable outcomes. It is critical for practitioners to consider the evidence which explains why engagement works well in some situations, but not in others. It is important for practitioners to be aware of these ways of thinking to inform how the process of engagement is designed, carried out, and evaluated. To do this, organisations and practitioners can embed best practice ways of thinking into their engagement strategies, which appreciate that the process (and outcomes) of engagement can vary depending on the context and purpose in which it is carried out. Practitioners can understand this by thinking about the context, design, power dynamics, and different scales at which engagement is enacted. These considerations can be used to inform some useful and workable recommendations that engagement coordinators can

apply in practice [17]. These are used to underpin some 'recommendations for best practice' in Section 3.

1.6 Engagement, technology, and post-COVID futures

There is a growing reliance on digital technology for delivering engagement [68, 69, 70, 71, 72]. Examples of different information, communication, and collaboration technologies include web surveys, social networking sites, videoconferencing, and online participatory mapping [71, 73] (sometimes referred to as *GeoParticipation* [70]).

The Covid-19 pandemic has accelerated our use and reliance on digital technology because of 'lockdown' movement restrictions and social distancing measures. This provides us with a unique opportunity for research and innovation. For example, the pandemic has pushed technology-related inequalities into the spotlight [74], which links with ongoing debates around the changing role and influence of technology in planning and decision-making.

Many organisations across the UK are currently (2021) working to adapt and refresh their digital public engagement strategies. For example, the Ministry of Housing, Communities, and Local Government's (MHCLG) white paper, *Planning for the Future,* sets ambitious goals for improving and digitising the planning system. This includes an explicit mention of the use of online participatory mapping tools, which often feature geo-located inputs (e.g. comments, pins, and other features), and facilitate public engagement by providing a central 'hub' for the collection of public perceptions, attitudes, and experiences [13].

In 2021, the Department for Business, Energy, and Industrial Strategy (BEIS) published a report (literature review and case studies) which brings together current evidence on the use of public engagement in policy development and the regulation of technological innovation [99]. Its purpose is to provide an evidence base to support the work of the Better Regulation Executive (BRE), which leads the regulatory reform agenda across the UK government. The report is aimed at policy makers and regulators and promotes best practice public engagement around new and emerging technologies.

Some useful theories and frameworks have been developed to help practitioners consider what makes engagement work (e.g. Reed et al. 2018)**,** however they do not explicitly include the role and impact of technology. Different (digital and in-person) tools and approaches will *work differently in different* situations, and therefore will influence the process and outcomes of engagement in different ways. It is important to consider the role and influence of digital tools (which are relevant to each of the four factors outlined in Section 2.5 based on Reed et al. 2018**)** throughout the engagement process. For example, practitioners can use the engagement **context and demographic characteristics** of those engaged to help inform whether (and how) it is appropriate to conduct digital engagement, who is involved, and who might be excluded; this information can then be used to inform the **design factors** of the engagement process. Practitioners can also consider how (and why) different **power dynamics** play out in online and remote environments and how to manage them. The spatial and time scale over which engagement is being conducted (the "**scalar fit**") can also

influence the role and impact of digital tools – e.g., some tools might work when engaging local people in decision-making, and others might work better at larger scales.

Although many of the same best practice recommendations apply to in-person and remote engagement (including digital, non-digital, and 'blended' approaches), there are some different challenges and opportunities associated with the use of remote, digital tools for engagement [74, 75]. To ensure we have a holistic understanding of best practice engagement, it is important to think about how (and why) the use of digital (remote) tools and approaches can impact the process and lead to differential outcomes. Practitioners can then begin to think about how to mitigate any challenges and best harness any benefits. Some key considerations for digital public engagement can be found in Table 1.

Table 1. Opportunities (✓) and challenges (?) for digital (remote) engagement

1. Inclusions and exclusions	
✓ **Opportunities**	? Challenges
✓ **Digital methods and tools can increase the accessibility and inclusivity of engagement processes. This can promote fairer, more representative outcomes through the widening of opportunities to participate. This can include people who may not be able to engage otherwise, helping to invite a wider range of perspectives into the engagement process [76, 73, 77].** ✓ **Digital tools can offer more opportunities for practitioners and participants to develop skills and confidence in digital literacy skills [78].**	? Digital tools can exclude people based on practical barriers (e.g. internet access and digital skills), socio-demographic and economic factors. This can create barriers or 'digital divides' which prevent people from gaining equal access to engagement opportunities, leading to the (further) marginalisation and disempowerment of some groups and individuals. [74,73, 77]. ? People can also be prevented from engaging due to lack of knowledge, skills, confidence, discomfort, or fear of engaging online [76, 79].
2. Time, money, and resources	
✓ **Opportunities**	? Challenges
✓ **Digital engagement can be more flexible, cost-effective, and can save time and resources. For**	? Digital engagement platforms can be expensive, take time to learn, and require additional training for

example, the reduced need to travel, book venues, and hire staff. Saving time and money can benefit *both* **engagement practitioners and participants in different ways [75, 73].**	engagement practitioners. It can also be more complex for participants to engage, and practitioners may have to provide learning resources (which can be an additional cost). [79].

3. Outcomes driven by quantifiable information	
✓ **Opportunities**	**?** Challenges
✓ **It can be beneficial to quantify (measure) and combine participant views and experiences in a central digital "hub". Large amounts of data can be collected, analysed, and presented quickly and efficiently.** ✓ **This can help practitioners make more straightforward, robust, and transparent decisions which can be easily shared and replicated in a digital form. [71, 73].**	**?** Using mainly quantitative data can result in the loss of important context, meaning, and nuance. These details can often be captured more sympathetically using qualitative and in-person methods. **?** Concerns exist regarding the privacy, security, safe storage, bias, and accountability of digital tools – e.g., who has the right to edit, view, control, and share the data? [71, 77].

4. New ways to engage	
✓ **Opportunities**	**?** Challenges
✓ **Digital tools offer new opportunities to engage. It can be useful to select a single digital engagement tool or platform as a 'one stop shop' for all the engagement needs of a project. Consistently using a digital platform over a long period of time can help promote sustained engagement in some situations [76, 79].**	**?** There are a lot of different digital tools and platforms for public engagement, as well as different advice on how to select and use them. This can make it confusing for practitioners to choose the 'right' tool for the project, or where to seek advice about this. This can risks turning digital engagement into a small-group 'elitist' activity [76].

5. Cohesion and community	
✓ **Opportunities**	**?** Challenges

✓ **Digital tools can reach lots of people quickly, over different space and time zones, who may not otherwise be able to connect and communicate.**	**?** The remote use of digital tools can be more solitary than in-person techniques. There are growing concerns regarding mental health, loneliness and isolation, online fatigue, developing and maintaining relationships, particularly during the COVID-19 pandemic.
✓ **If facilitated well, online engagement might help create a vibrant discussion and sense of community between diverse participants. The variety of digital tools on offer can help connect people in different creative and innovative ways. [76, 77].**	**?** Lack of in-person dialogue can lead to different outcomes. For example, in online (remote) situations participant opinions can be quite mechanical or rehearsed, whereas ideas are tested and developed in different ways in in-person situations (i.e. through communal discussion and debate). [81, 82, 77].

To summarise, digital engagement tools may lead to *better* engagement processes and outcomes in *some* situations. However, this must be part of a wider, carefully planned, and adapted engagement process which considers the *context, design, management of power dynamics, space and time factors* [17]. In other words, the use of digital tool/s alone will not necessarily deliver a 'good' engagement process and positive outcomes. Increasing adoption of digital technologies, including 'digital by default', presents new challenges for best practice engagement in relation to exclusions, accessibility, useability, ethics, and privacy/security issues. Central to these debates, as with good engagement more generally, is the need to understand the context, demographics, and environment in which technology is used – practitioners can use these understandings to accommodate groups and individuals who are likely to be disproportionately impacted by use of technology.

2. Recommendations for organisations and practitioners

There is a large amount of evidence which tells us about different ways of 'doing' engagement – what works well in some situations, and what does not work well in others. We can use this evidence [3, 17, etc.] to inform the development of organisational frameworks and practical strategies for applying best practice public engagement in environmental decision-making arenas**. Below are some key questions to consider** – these are important for organisations seeking to embed an engagement culture, and individual practitioners seeking to undertake best practice engagement [2, 3, 17].

- What counts as a 'good' and effective public engagement processes and outcomes for us?

- Are we gathering feedback on what works and what doesn't?
  - How are we feeding this back in to improve our engagement culture?
- Does engagement make a difference to how we combat environmental issues and achieve sustainable outcomes?
- What are we trying to achieve by engaging and who sets the agenda and questions?
- Are the impacts of engagement good or bad and for what/whom?
- What are our stakeholders' perceptions of engagement?
  - How do they want to be involved, represented, and what are their goals?
- How does the context of public engagement influence its effectiveness?
- What tools and methods are appropriate to use for engagement, for what/whom, and what are the potential challenges and opportunities?
- How has COVID-19 impacted our ability to engage and what are key lessons we can learn to inform future best practice?

To help answer some of the above questions, **below are some key recommendations** for best practice public and stakeholder engagement. These are grouped into 8 themes (in no particular order):

1. **Practitioners and decision-makers should take time to understand the local context in which engagement is being carried out**

Context can play an important role in determining the outcomes of engagement processes [17, 54, 83]. The design of the engagement process, including the selection of specific *types* and *methods*, should be carefully and thoughtfully adapted to this context. For example, consider the **social, political, cultural, and institutional factors** which might be at play in the decision-making context (and thus might affect the engagement strategy) [84]. For example, what is the history of engagement with this community on this issue? Who engaged before and what was the outcome? What are existing relationships like between the different stakeholder groups, and between the stakeholder groups and the organisation looking to engage? Who holds power in the decision-making process? Keep in mind that these factors can occur at different scales. For example, the perceptions, attitudes, and experiences of the public will likely be different at the local level (e.g. regarding a local environmental issue) than at the national level (e.g. relating to national environmental policy agenda-setting).

Different *types* of engagement will be more appropriate in different contexts [17] – e.g. *co-production* is not always necessarily better than *information provision* or *consultation.* These are just different types of engagement which can yield different results in different situations. It may be appropriate to use different methods at different points in the process.

2. **Engage stakeholders in dialogue as early as possible in the decision-making process**

How early you engage (and how long) will depend on the context and purpose of engagement. For example, if you are engaging in a *co-production* process you will need to

involve participants right from the beginning, but if you are raising wider *public awareness* you would engage further along in the decision-making process.

Clear objectives for the engagement should be clearly defined and agreed-to within the team responsible for coordinating the process, *as well as with the involved public and other stakeholder* groups as early as possible [3]. It will likely be important to gain an understanding of what participants want from the engagement process – e.g. what are the desired outcomes, what constitutes "good" engagement from the perspective of those involved?

Consider who should be involved (who might be able to impact or be impacted by a decision or project) and what are their characteristics? For example, how do we make sure we are hearing from a representative cross-section of the community? How can we actively engage with seldom heard groups and individuals, those who hold less power in society, and those who might be disproportionately impacted by a decision? Different groups and individuals might need different types of engagement and some may need support to empower or enable them to take part.

A dialogue should be maintained throughout the process as far as possible, with opportunities for the participants to provide feedback about the engagement process [85]. This can enable the development of shared goals and co-produced outcomes, as well as increased 'buy in', engagement and trust.

3. Recognise the importance of integrating local and scientific knowledge

Although scientific information and analysis is essential for many types of environmental decision-making, it is important that local knowledge is not ignored or undervalued and there is public scrutiny of expert knowledge. This enhances the legitimacy of decision-making outcomes and therefore credibility and trust amongst participants [23]. In addition, when scientific information is combined with local knowledge, values, and experiences, a more **comprehensive understanding** of environmental issues can be achieved. This can lead to better and more robust decision-making outcomes [32, also 86, 87]. This is because environmental issues are inherently complex, involving social and natural systems. Environmental decision-making needs to be reflective of this to ensure that we can build a more sustainable environment for everyone.

Local and scientific knowledge is important for different reasons. For example, scientific knowledge has been described as "know-why" because it helps us understand why environmental issues happen. Local knowledge has been described as "know-how" because it provides valuable experiential and context-dependent information about environmental issues [3, 88]. The evidence suggests that using a combination of local and scientific knowledge can help empower local communities to engage with environmental issues more effectively [83, 88].

4. Power dynamics should be managed effectively

Different power dynamics can exist between and within engagement coordinators/decision-makers and participants. Mediating dialogue and cooperation between different people can help ensure more equitable and lasting outcomes than hierarchical approaches [65, 66].

- Using skilled facilitators can help marginalised voiced be heard and build trust in the process. Facilitators are people who can provide information and guidance throughout the decision-making processes, are skilled at translating knowledge between different participants, ensuring the maintenance of relevant discussions, and managing the synthesis of information [66].

- Different hierarchies of power relating to *knowledge* can exist in the decision-making process, e.g. between "experts/specialists" and "non-experts/specialists" or "local knowledge" and "scientific knowledge". All types of knowledge are important - effort should be made to dismantle hierarchies and integrate different types of knowledge in the decision-making process, even if they do not 'fit' the view of the engagement coordinators. Different hierarchies of power can also exist relating to agency (the capacity of individuals to act independently and to make their own free choices) and ability of participants to influence a process or decision.

- Active and empathetic listening is an important participatory method which can be used to engage stakeholders [89]. This approach has been used within environmental decision-making contexts to bring together diverse groups and individuals (local communities, landowners, farmers, and so forth); offering each participant the change to speak and allowing environmental professionals the chance to listen. This helps give participants a voice, promoting knowledge exchange, and reducing the likelihood that knowledge is delivered as part of a top-down agenda [90, 91, 92].

- When engaging with diverse stakeholders, practitioners should accept that there is unlikely to be a clear-cut consensus of opinion (in existence or able to be achieved). Practitioners can prepare for how this will be managed within the planning stages of the engagement process.

5. **Think about the length and time scale of the engagement process and how often it might be necessary to engage with participants**

Does the situation require a short, focused engagement process, or might a longer process be more appropriate to build/maintain meaningful relationships with participants? In some contexts, engagement might be a one-off activity, but in others it will be much more effective (and impactful) to engage using multiple stages over time. Practitioners should also consider the needs and expectations of different public and other stakeholder groups and understand how these might vary across different spatial scales [67].

Different participants will take different amounts of time to engage effectively. This can vary depending on their socio-demographic characteristics (e.g. age, level of education), previous experiences with engagement processes, perceptions of the engagement coordinator/organisation, how affected they will be by the decision, etc. [67].

6. Recognise that different tools and approaches for engagement will work differently in different situations

It is important to adopt a flexible and adaptable approach when selecting the best tools for engagement – practitioners should remember that the tools and methods should be selected and tailored to the decision-making context, purpose, and type of participants [3].

Different tools and approaches require different considerations regarding accessibility, inclusivity, equity, ethics, trust, privacy/security, and so forth [71, 76, 79]. For example, an online participatory mapping approach might be an inclusive and effective way to engage with some groups and individuals but may exclude others. Some of the main challenges and opportunities for digital tools for engagement are presented in Table 1; these should be considered within the design and implementation of best practice engagement strategies. Sometimes using a 'blend' of in-person and digital (online) tools is most effective [79, 86].

Sometimes it might be appropriate to use only one tool throughout the whole decision-making process, however in other situations multiple different tools might be used at different stages.

7. Manage realistic expectations of the engagement process

Engagement participants can become disappointed, disillusioned, or angry if promises are made (or implied) that are not realised, which can in turn increase disillusionment and mistrust in those managing engagement [93]. It is important that practitioners manage these expectations in an open and honest way. This could include, for example, what are (and what are not) considered to be relevant topics up-for-debate, and what is and is not 'on the table' in terms of what can be influenced via the process (including what has already been decided).

The expectations of engagement should be agreed early on within the engagement coordinating team and communicated *clearly* to stakeholders. If appropriate, stakeholders should be given the chance to provide feedback at this stage. Being transparent is key – it is important to be up-front about what can be realistically achieved in terms of the outcomes of the engagement process, in part to reduce the risk of anyone involved becoming disillusioned [93]. This should include consideration of time, money, expertise and other available resources.

8. Evidence-led, best-practice engagement needs to be institutionalised as a culture of engagement

To be successful in the long-term, evidence-led, best-practice engagement should be embedded in institutions [3, 94, 95]. This includes establishing an organisational *vision for engagement* and associated *best practice engagement strategy*.

- This may require some internal organisational research, for example into how engagement is currently practiced, experienced, capabilities and motivations for engagement.

- The engagement culture should emphasize empowerment, equity, trust, and shared learning [3]. It should be able to be adapted to different organisational needs, situations and contexts. Evaluation should be built into engagement *throughout* the process [3, 15]. Evaluation involves assessing whether the engagement process led to any (positive) difference and for whom, and how the process compared to what was originally proposed. If engagement led to no changes, why not? It is important to be transparent about the evaluation process and what can be realistically achieved.

- The institutionalisation of engagement frameworks should involve monitoring of compliance. For example, organisations need to decide on how they monitor progress and compliance.

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