TRANSEATION

BLUE IS THE NEW GREY · NATURE-BASED SOLUTIONS

Advancing Ecosystem-Based Management through Hybrid Blue-Grey Infrastructures in Marine and Coastal Areas

Support material for participatory activities

Deliverable 12.2

Document information

Deliverable number	12.2
Deliverable title	Support material for participatory activities
Deliverable version	1
Work Package	WP12
Date	30th June 2025

Dissemination level

PU: Public	X
SEN: Sensitive, limited under the conditions of the Grant Agreement	

History

Version	Date	Reason	Revised by
1		First draft of D12.2 finished	
2	16.05.25	Review of the personal data management section	Juan Carlos Sanz González (CTN)
2	19.05.25	Review of the personal data management section	SINTEF and Sikt members
3	11.06.25	Internal SINTEF quality assurance	Rita Tatiana Vasconcellos L. d'Oliveira Bouman
3	11.06.25	TRANSEATION Consortium review	WP12 partners and project leader

Author List

Organization	Name	Rol [1]
SO	Marta Pujol Martin	Author, WP leader
SO	Anne Gaspers	Author
SO	Sigurd Hilmo Lundheim	Author
SO	Katherine Crosman	Author

[1] Author, editor, contributor, reviewer

Disclaimer

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or European Research Executive Agency (REA). Neither the European Union nor the granting authority can be held responsible for them.

Copyright

Table of content

List of tables

List of figures

Symbols, abbreviations and acronyms

D	Deliverable
EU	European Union
T	Task
WP	Work Package
DMP	Data Management Plan
GDPR	General Data Protection Regulation
HEU	Horizon Europe
GA	Grant Agreement
CA	Consortium Agreement
PD	Personal Data

1 EXECUTIVE SUMMARY

This deliverable provides a set of practical tools and methodological guidance to facilitate participatory activities within the TRANSEATION project, with a focus on supporting data collection and encouraging interdisciplinary collaboration in the stakeholder engagement process. It is structured into three main sections: personal data management, individual data collection, and collective engagement through workshops. The first section addresses legal and ethical considerations for handling personal data in accordance with the General Data Protection Regulation (GDPR), including principles such as data minimization, anonymization, and informed consent. The second section introduces an integrated approach to surveys and interviews, providing orientation for effective individual-level data collection. The third section focuses on workshop-based engagement, presenting a toolkit tailored for use in marine Nature-based Solutions. Case examples illustrate the application of these methods in real-world scenarios, emphasizing the importance of transparency, inclusivity, and co-creation in stakeholder interactions.

2 INTRODUCTION

2.1 HOW TO USE THIS SUPPORT MATERIAL

The following support material is **designed to equip TRANSEATION project partners, and specifically demonstration leaders, with a range of practical tools to facilitate participatory activities and effective stakeholder data collection.** This includes orientation on managing personal data, criteria for selecting data collection methods (such as interviews, surveys, or workshops), and recommendations for choosing appropriate workshop techniques based on specific goals. These resources may also benefit other professionals working in multidisciplinary teams with stakeholder engagement.

The specific goals of this deliverable include:

- **Ensuring the correct management of personal data** according to the latest European regulations
- **Improving and standardizing personal data collection and management** within the project
- **Promoting participatory methods,** such as workshops, **and standardizing workshop techniques**
- **Enhancing interdisciplinary collaboration** across partners and demonstrators
- **Building capacity** for designing process for collecting data from stakeholders

The resources compiled in this deliverable address the engagement aims and needs identified in the TRANSEATION project across various demonstrators. Its purpose is to assist demonstrators and partners in finding an appropriate approach for engagement and data collection. In particular, the outputs of this deliverable are intended to support several key activities, including interviews conducted in WP3 EBM framework for hybrid blue-grey infrastructures (T3.4 evidence-based criteria for marine NbS), and the Low-trophic aquaculture infrastructure demonstrator. They also contribute to collective participatory and outreach activities planned for the Coastal Protection and Offshore Wind Farm infrastructure demonstrators.

The main information sources are scientific literature, lessons learned from similar projects, and authors' experience.

TRANSEATION stakeholder engagement aims can be summarized into three distinct scenarios:

Table 1: Shows an overview of Scenario 1: Raise awareness

Scenario 1: Raise awareness	
Aim of the engagement	Increase transparency and trust, address uncertainties and skepticism, increase interest in the NbS, inspire others to use/test NbS, etc.
Addressed to	General public
Action suggested	Communication and dissemination activities

Table 2: Shows an overview of Scenario 2: Solve technical challenges & collaborate.

Scenario 2: Solve technical challenges & collaborate	
Aim of the engagement	Develop ways to co-exist with different sea users, establish collaboration between organizations, establish new partnerships, contribute to the monitoring of the NbS, etc.
Addressed to	A range of stakeholders, including peer organizations (in the same sector or different)
Action suggested	Communication and dissemination, and dialogue building activities (such as workshops)

Table 3: Shows an overview of Scenario 3: Promote knowledge sharing & assess acceptance.

Scenario 3: Promote knowledge sharing & assess acceptance	
Aim of the engagement	Assess the acceptance, assess upscaling potential, etc.
Addressed to	Technical stakeholders and non-technical but related stakeholders (e.g. industry, public administration)
Action suggested	Option 1: Communication and dissemination, and dialogue building activities (such as workshops) Option 2: Communication and dissemination and surveys/interviews

Based on the engagement aims and the needs identified by the consortium, the support material has been structured into three sections to facilitate the engagement process. These sections are:

1. **Personal data management:** This section orients users of the guide to the collection, management, and use of personal data in the EU. Importantly, it orients users to the EU General Data Protection Regulation (GDPR), which governs personal data in the EU, and alerts the user to the need to comply with GDPR requirements and any relevant national legislation. It defines personal data and related topics (informed consent, ethics, data storage, etc.), provides examples, and discusses strategies for avoiding personal data collection and/or anonymizing data.

2. **Individual data collection:** This section orients users to strategies for collecting data and information from individuals. It focuses primarily on surveys and interviews. Two classic social science methods, and presents a stepwise orientation to scoping, designing and implementing individual data and information collection as well as an introduction to analytical techniques and a guide to selecting the most appropriate methodology. Much of the opening information in this section (e.g., the introduction to contextual considerations) will also be useful for those who wish to conduct workshops.

3. **Group engagement and data collection:** This section orients users to engage with groups, with a focus on orienting the reader to when and how to run workshops. It defines workshops and provides a structured introduction to workshop design, necessary materials, facilitation, and possible types of workshop activities. The section

also includes detailed, one-page introductions to several common workshop techniques with links to further resources.

The primary limitation of this deliverable is that it serves as an orientation document rather than providing full training in the methods discussed, since it is designed to support and enhance interdisciplinary collaboration. The topics, methods, and techniques covered in this guide should be implemented in ongoing collaboration with partners who have pre-existing expertise in personal data handling and ethical requirements, social science research methods, and workshop techniques.

3 PERSONAL DATA MANAGEMENT

This chapter provides an orientation to personal data management and anonymization. When conducting participatory activities, you often collect personal data. The European Union (EU) **General Data Protection Regulation** (GDPR) defines personal data as "any information relating to an identified or identifiable natural person"; a more detailed definition can be found under Article 4(1) (European Parliament & Council of the European Union, 2016). We, the authors, want to stress that this section is an orientation on how to manage personal data within research projects. By reading this section, you will get suggestions for how to navigate personal data management. However, this section is *not* a guide to navigating all GDPR issues in data management. If you are in doubt about questions related to GDPR, we recommend checking with your organization's data protection officer or a similar body responsible for ensuring GDPR compliance.

3.1 INTRODUCTION

By law, personal data is protected in the EU. You, as an individual, have a right to control how your personal data is processed. GDPR Article 4 defines personal data as any information that related to an identified or identifiable person (European Parliament & Council of the European Union, 2016). This is established in the GDPR. The aim of the regulation is to protect the personal data of individuals in the face of a wide array of services such as email, social media, or online banking, all using and collecting personal data. GDPR applies to all people or organizations processing the personal data of EU citizens or residents (Wolford, 2018). All articles of the regulation are freely available at this link: GDPR. It is strongly recommended that those conducting the participatory activities have at least a surface-level understanding of GDPR. A lack of compliance with GDPR can lead to several negative consequences. Some of the common consequences are ineligibility to participate in public tenders, fines up to 20 million euros, fines or criminal charges under national law, and negative publicity (GDPR Handbook, n.d.). To avoid these consequences, it is important to know when you might be dealing with personal data and need to make sure you comply with GDPR. Figure 1 shows the hierarchical relationship between the EU and GDPR, grant agreement (GA), consortium agreement, and data management plan.

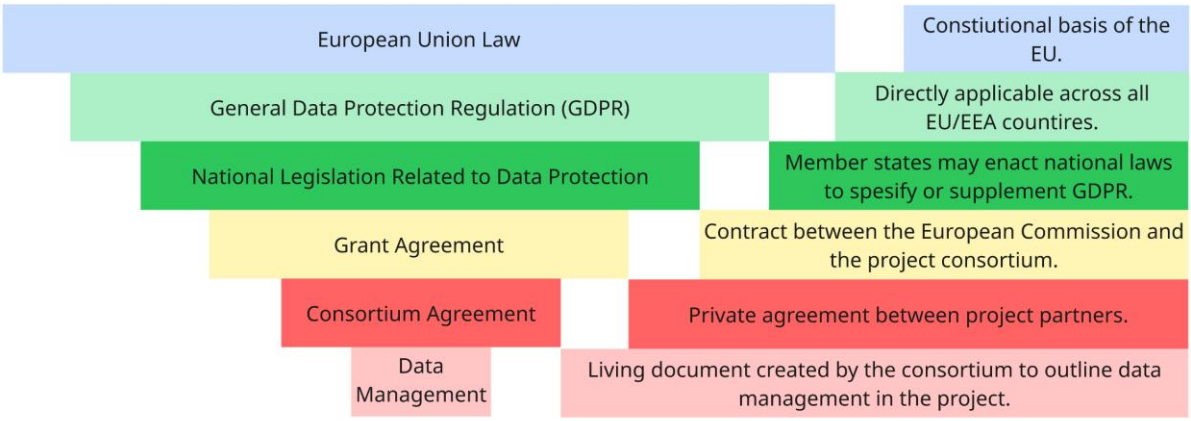


Figure 1: Shows an illustration of the hierarchical relationship between the EU, GDPR, grant agreement, consortium agreement and data management plan.

This support material covers several articles of the GDPR. For simplicity the articles directly mentioned in the text are covered in Table 4.

Table 4: Shows an overview of GDPR articles mentioned in this support material.

GDPR Article	Purpose
4 (1)	Defines personal data in the context of the GDPR.
4 (7)	Defines the term controller.
4 (8)	Defines the term processor.
5	Outlines the principles related to processing of personal data. For example, that personal data should be processed in a way that is transparent to the participant.
6	Outline the principles for lawful processing of personal data. For example, that the processing is done in the pursuit of legitimate interest.
6 (a)	Specifies the lawfulness of processing personal data based on explicit consent.
7	Outlines the principles for conditions for consent. For example, that the participants can withdraw their consent at any time with no negative consequences.
13	Outlines what information will be provided when personal data is collected.
14	Outlines what information should be provided to the participant if personal data is not collected.
22	Outlines the right that participants have to not be subject to personal data processing using AI.

3.1.1 IDENTIFIERS

There are two primary categories of personal data: direct and indirect identifiers. Direct and indirect identifiers can be generated through interviews with stakeholders, surveys sent out to the public, and observations made in workshops, as well as other types of participatory engagement.

Direct identifiers are any piece of information that can be used in isolation to determine a person's identity (see Figure 2 for example). What qualifies as a direct identifier is usually clear, but there are grey areas. For instance, you may come across or use public email addresses when inviting participants to a meeting. As the email address is already public, it can be challenging to know if it is to be considered personal data or not. However, in general, any email address that contains a name and surname should be treated as personal data. However, an email address such as contact@company.com is not personal data.

Examples of direct identifiers:

- Name and surname
- Phone number
- Residential address
- An email address that can identify a person

Figure 2: Shows examples of direct identifiers.

Indirect identifiers are created when seemingly innocuous pieces of information can be used in combination to determine a person's identity. An example of indirect personal data is sociodemographic data combined with an occupation. If you were to interview a person who works for an offshore wind farm in Spain, and you know the location of the wind farm, the age, gender, and income of the person, it might be possible to infer their identity.

After collecting personal data, it is best practice to anonymize the data (see Chapter 2, Dealing with personal data). Once data are irreversibly anonymized, they no longer contain personal data and can generally be handled, reported, etc. without the need to meet additional special requirements (European Commission, n.d.-a).

3.1.2 ORIENTATION TO DATA HANDLING ROLES

The GDPR lays out two roles that are relevant to handling personal data: data controller and data processor. Figure 3 outlines the relationship between the data controller and the data processor.

The role of the **data controller** is to determine the purpose behind the data collection and how the data will be processed. A more detailed description can be found in Article 4(7) of the regulation (European Parliament & Council of the European Union, 2016). In the context of TRANSEATION, a data controller could be, for example, an organization that plans a research project, determines why they will collect personal data, and for what purpose, before outlining how the personal data is processed.

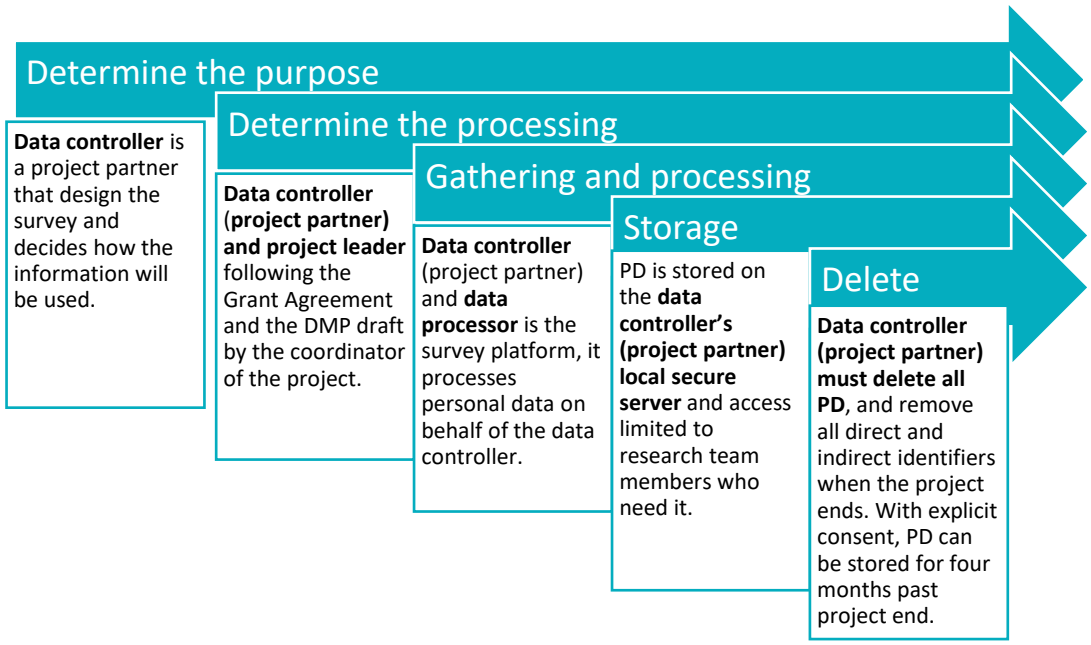
If two or more organizations determine the purpose of data collection and how the data will be processed, they are **joint controllers** (Data Protection Working Party, 2010). For example, if two organizations are working together to anonymize interview data, then they are joint controllers because both are processing personal data during the anonymization process. In the case of joint controllers, the parties must enter into an agreement outlining their respective responsibilities to ensure compliance with GDPR (European Commission, n.d.-b).

A **data processor** is an organization that processes personal data on behalf of the data controller(s) (European Commission, n.d.-b). Are more detailed definition can be found in Article 4(8) (European Parliament & Council of the European Union, 2016). When utilizing a data processor, the duties of the data processor must be outlined in a formal contract. An example of such a contract can be found here. A typical example of a data processor is an online survey platform. The online platform will collect the responses to the survey. The responses can contain personal data, or the IP address used to connect to the survey platform data is also considered personal data. In some cases, the data processor may need to subcontract another processor.

For example, the survey platform in the previous example might subcontract another company to provide skilled interviewers to collect qualitative data. In this situation, the contract must stipulate that this can only be done with the written consent of the data controller (European Commission, n.d.-b).

Figure 3 exemplifies the whole data collection process within TRANSEATION. The data controller determines the purpose. The data controller, the project leader, according to GA and DMP, determines the nature of how the data will be processed. The data controller and a survey platform gather and process personal data for the purpose of research. After collection, the data is then stored on a local secure server. The final step is for the data controller to delete all personal data from the gathered data. The data needs to be deleted in a manner that makes it impossible to recover any personal data. When that is done, the data gathered is no longer considered personal data. The table within Figure 3 presents a summary of the responsibilities of the different actors in a data collection and processing process.

Data collection process: from determining the purpose to deletion of personal data



Different actors' responsibilities

	Determine the purpose	Determine the processing	Gather	Process	Storage	Delete
Data controller (Project partner)	✓	✓	✓	✓	✓	✓
Data processor (Survey platform)			✓	✓		
GA, DMP, project coordinator		✓				

Figure 3: Shows an example of the data collection process and the different actors' responsibilities.

3.2 DATA MANAGEMENT PLANS

Collecting data for research also involves the creation of a data management plan (DMP), a document that outlines how research data and personal data will be managed from project start to end. This section will focus of the treatment of personal data in the DMP. It should cover which types of personal data you collect and how it will be stored, analysed, and shared (if shared at all). The plan should also cover legal rights, costs, and privacy concerns (NTNU, n.d.). A DMP should be created early in the research process and revised as necessary; it is a tool for you as a data controller to identify risks early and throughout the process and ensure smooth project execution. Identifying potential risks is especially important if you are dealing with personal data. In larger research projects, a DMP is crucial to ensure that all the partners have the same understanding of personal data management. In this section, we will reference the TRANSEATION DMP, which can be found here.

Besides being a research support tool, a DMP is often a formal requirement. The Horizon Europe (HEU) programme requires a data management plan (European Commission, 2025) and provides an easy-to-follow DMP template (European Commission, 2022). They also provide several recommendations on what a DMP should include and how to utilise it effectively. The template specifically mentions personal data in the context of access control, and ethical concerns such as informed consent and long-term storage of personal data. The European Commission further recommends that DMPs be made public (European Commission, 2025).

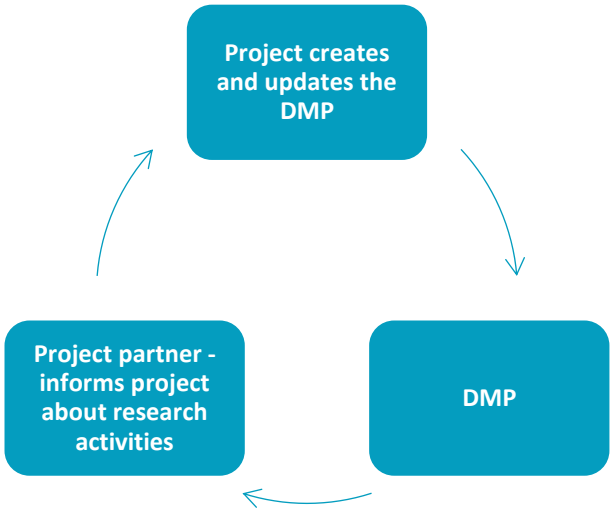


Figure 4: Shows an illustration of the relationship between the project, project partners, and the DMP

As noted above and illustrated in Figure 4, and as mentioned explicitly in the TRANSEATION DMP, a DMP should not be a static document but should be updated regularly throughout the project; therefore, adding new data collection activities within a project that has an existing DMP should not be a problem. When new personal data is collected, the DMP should be revised to reflect how the project handles the new data. In many cases, this is explicitly stated in the DMP. However, there may be project-specific restrictions within the DMP that those running the participatory activities should be familiar with.

3.2.1 PERSONAL DATA STORAGE AND ACCESSIBILITY

As required by HEU, the TRANSEATION DMP outlines how data should be managed within the project. It covers various types of data management; here, however, we focus on personal data management principles. In alignment with the HEU template's focus on findability and accessibility of project data, the TRANSEATION DMP states that data should be made public if possible. Personal data are an exception to this principle. The TRANSEATION DMP specifies that all personal data will be treated according to the principles set out in Article 5 of the GDPR (European Parliament & Council of the European Union, 2016). This requires special attention to data security. Personal data in TRANSEATION are to be stored on the data controller's local secure server. This is a predetermined location on that has access control and other appropriate security measures in place such as hiding the folder for people who do not have access. Storing personal data on a local server gives you, as the data controller, more control over who can access the data. Access should be limited to the research team members who need it. Note that storage on the data controller's local server does not include storage on laptops or similar devices.

The HEU template also states that the DMP should outline what happens to the data after the project ends. In the TRANSEATION DMP, when the project ends, all personal data must be deleted, and all direct and indirect identifiers removed, so that remaining data are completely anonymized. However, the TRANSEATION DMP also outlines an exception. Personal data can be stored after the contractual end of the project for four months, if you have explicit consent of the participant. Even after the contractual end of the project participants should have the opportunity to contact the data controller or data processor to inquire about the status of their personal data.

3.2.2 ETHICAL CONSIDERATIONS AND INFORMED CONSENT

The collection of personal data is very much within the scope of ethical considerations. Who you can collect data from, how much data should be collected, and when you can collect data are all questions to be outlined in a DMP, as recommended by the HEU template. In response to these recommendations, the personal data section of the TRANSEATION DMP follows data minimization principles, emphasising that you should avoid collecting data that is not necessary for your analysis.

The TRANSEATION DMP also specifies that minors and those unable to give informed consent will be excluded from data collection and outlines the requirements for informed consent.

3.3 LEGAL BASIS FOR PROCESSING PERSONAL DATA

For the purpose of this orientation document, we will be focusing on **two different legal bases for processing personal data**. These are **consent and legitimate interest**. Article 6 outlines the lawfulness of processing (European Parliament & Council of the European Union, 2016). When engaging with stakeholders and collecting data, it is important to ensure that participants explicitly consent to participating. Consent is based on Article 6 (a) of GDPR. European Data Protection Board (2020) outlines the minimum requirements for receiving informed consent. The data controller's identity needs to be disclosed, the purpose behind the data processing operations, which types of data is collected, making the participant aware of the right to withdraw consent, information about the use of automated decision-making tools on their

personal data and the transfer of their data to countries outside of the European Economic Area. Additionally, if you are collecting written consent you should follow the relevant Web Content Accessibility Guidelines. These are a set of recommendations that aims to make web content more accessible for people with disabilities. These guidelines can be found here.

You are not always dependent on consent to process personal data. In some instances, you can process personal data without consent if it is to perform a task that is in the public interest (legitimate interest) (European Parliament & Council of the European Union, 2016; Sikt, n.d.-b). Legitimate interest is a very broad term, which can be a basis for a wide variety of processing purposes. However, it also means that the data controller has to specify the purpose of the data processing. For example, collecting email addresses from people affected by the development of offshore wind turbines to invite them to a workshop can be deemed a legitimate interest and may therefore not require the consent of the individuals. Another example of legitimate interest is if the sample is too large to get informed consent from each participant. This is relevant if you are using data provided by a statistic bureau (Sikt, n.d.-b). What constitutes lawful processing is governed by Article 6 of the GDPR (European Parliament & Council of the European Union, 2016). Despite different legal bases for processing personal data (consent and legitimate interest), from an ethical standpoint, you should try to get consent from participants if possible and participants need to be informed or an attempt to inform participants has to be made (Sikt, n.d.-b).

Providing written information and receiving written consent (a signed consent form) is a common method of documenting informed consent. Reliance on oral consent is not recommended, as informed consent requirements normally mandate that consent be recorded. However, if you are working in oral cultures or with illiterate participants, you may choose to make an audio recording of both the information given and the consent received. It is critical to note that a signed consent form or recording of oral consent contains personal data and should be treated as such. If you are working with very sensitive topics and you require oral consent, you may choose not to collect personal data through audio recording and just take notes.

The conditions for consent are governed by Article 7 of the GDPR (European Parliament & Council of the European Union, 2016). A thorough consent process will ensure that you, as a data controller or processor, will have documented informed consent from your participants to use their personal data in the manner that you describe. Note also that legal or institutional requirements for informed consent differ from country to country, so standard online templates should be used with care. You should check what legal requirements apply, and whether your institution has requirements, templates or guidelines for gathering informed consent. What do you do when the data is anonymized? After completely removing all identifiers, your data is no longer considered personal data. The consent form is the only trace of your respondent's participation. These forms should then be deleted unless otherwise specified in the consent form (Sikt, n.d.-b).

The example in Figure 5 illustrates some basic categories of information to be included when securing informed consent. It is drawn from the consent form template for research data in Norway (Sikt, n.d.-a). Again, your national or institutional requirements may differ. Despite the example from Figure 5 being from Sikt, the legal requirements that the form is based on are in Articles 13 and 14 of the GDPR (European Parliament & Council of the European Union, 2016). The final section of a consent form should include a checklist where respondents can choose to give individually tailored consent to the different aspects of the participation (Sikt, consent form template, see Figure 5 for an example).

By ensuring that you have received informed consent from your participants, you are able to process their data in a manner that is transparent to the participants. The participants know and understand what happens to their data and who it is shared with. They also know what their participation will entail. This is key in ensuring that your research is ethical, and it can also help to build trust between researchers/research communities and the participants (Shah et al., 2025).

Topics to be included in a consent form according to Sikt

Sections of the consent form	Topic of the section
Purpose of the project	You are invited to participate in a project where the aim is to…
Why are you being asked to participate?	You are being invited to participate because…
Who is responsible for the research project?	[Institution] is responsible for the personal data processed in the project.
Participation is voluntary	There will be no negative consequences if you do not want to participate or if you later request to have your personal data deleted. [Description of what participation entails]
Brief information about data protection	We will only use data about you for the purposes described in this letter. We will process personal data confidentially and in accordance with data protection legislation. [Who the data are shared with. If applicable]
Data protection	[How do personal data are stored and used]
What gives us the right to process data about you?	EITHER: We process your information based on your consent. OR: We process your information for research purposes in the public interest.
What happens to your personal data when the project ends?	The project is expected to end… The collected data will then be…
Your rights	[A description of the person's rights related to their personal data as long as they can be identified in the data. It also includes contact information where a participant can ask questions or lodge a complaint.]

Example of how to offer tailored consent to research participants

I have received and understood information about the project [insert project title] and have been given the opportunity to ask questions. I give my consent:

- ☐ to participate in (insert method(s) for participation, e.g. online survey, interview)
- ☐ to participate in (insert other methods that are optional, e.g. follow-up interview) – if applicable
- ☐ for [indicate who] to provide information about me to this project – if applicable
- ☐ for information about me to be published in a way that I can be recognized (describe in more detail) – if applicable
- ☐ for my personal data to be stored after the end of the project for (describe purpose(s) for future storage and duration) – if applicable

I give consent for my personal data to be processed in this project.

(Signed by participant, date)

Figure 5: Shows an example of which sections to include in a consent for to ensure that your participants can provide informed consent

3.4 DEALING WITH PERSONAL DATA

We recommend considering anonymization needs from the start of the project. This may involve identifying strategies to avoid personal data collection (data minimization), removing identifiers, and identifying and minimizing risk.

3.4.1 HOW TO AVOID COLLECTING PERSONAL DATA

When planning research projects, you should try to **avoid collecting personal data**. This is preferable as it adheres to the **data minimization principle**, making it easier to deal with your research data as it is not subject to GDPR. Even when you consider ways to avoid collecting personal data from the outset, performing varying degrees of anonymization on your data will most likely be necessary, but you can minimize the amount of anonymization necessary. For surveys, collection of unnecessary personal data may be avoided through **careful data collection choices**. For example, you (data controller) may select a survey platform (data processor) that your organization has approved for anonymous survey data collection rather than a provider that stores IP and email addresses with the survey results (see Pre-administration and Administration In Chapter 4 of this guide for further discussion of survey providers). The data controller should also clarify with the data processor if they will receive already anonymized results or the raw data. To avoid collecting indirect personal data, you can strive for less granularity in response options. In a survey questionnaire, for example, you may reduce the possibility of collecting personal data by structuring response options in age and income brackets instead of asking for specifics. You may choose also to avoid using open-ended items in surveys, as open-ended responses may include personal data (Sikt, n.d.-c) (see Designing your overall methodological approach In Chapter 4 of this guide for further discussion of open- and closed-ended questions). All this being said, anonymizing your data should not lead to you collecting “worse” data just to avoid collecting personal data. Collecting personal data is fine as long as you, as a researcher, have a justification for collecting it and are transparent about what you are doing with the data.

Avoiding the collection of personal data is more challenging in interviews and workshops, necessitating that you avoid using recording equipment other than note-taking. Even so, participants may share personal data in their responses, so when taking notes, be mindful to omit data that contains personal information or combinations that can be used to identify participants.

3.4.2 ANONYMIZING DATA FROM WORKSHOPS AND INTERVIEWS

Data from interviews and workshops is often qualitative and generally textual. At first glance, anonymizing this data is relatively simple: you remove or replace the names of people, places, and all other directly identifying information (Gibbs, 2018). This is known as **redaction and pseudonymization**, and it is done to ensure that participants' identities are protected. Being inadvertently revealed to your peers as the source of a contentious quote, for example, can have serious consequences for your participant. However, it is possible to "over" or "under" anonymize your data when editing your transcripts (UK Data Service, n.d.-a). It is key to keep a balance between redacting information and keeping information. If too much is removed, your data will lose its utility and validity. However, keeping too much information risks disclosing personal data and revealing who your participants are.

Figure 6 shows an example of anonymizing an interview transcript. The text is AI-generated and unrelated to any real-world data.

Non-anonymized text

My first fishing job was at Bluewater Fisheries, about a 20-minute boat ride from my home in the coastal village of Seabrook. From the very first day, my best mates were Tom, Sarah, and Mike. In fact, I'm still very close friends with Sarah to this day. She lives in the same village with her husband, Jack, and their daughter, Emily.

Anonymized text

My first fishing job was at [Fishing Company], about a 20-minute boat ride from my home in the coastal village of [Village]. From the very first day, my best mates were [Colleague 1], [Colleague 2], and [Colleague 3]. In fact, I'm still very close friends with [Colleague 2] to this day. [They] still live in the same village with their family.

Figure 6: Shows an example of how a researcher can anonymize text from an interview.

Anonymizing data allows you to keep the essence of the data while not disclosing data that might identify your participants or individuals they have mentioned. Note, however, that this can be challenging, as identifiers can be implicit (Weitzenboeck et al., 2022), making for a time-consuming but nonetheless important process.

3.4.3 ANONYMIZING DATA FROM SURVEYS

Surveys generally generate quantitative data, which is mostly reported as structured data in the form of numbers in tables. However, open-ended questions in a survey will generate qualitative data. As with data from interviews and workshops, you should always remove direct identifiers. In the case of surveys, it can be an IP address, email, or details in an answer from an open-ended question. Table 5 below lists common methods of anonymizing survey data (UK Data Service, n.d.-b). It should be noted while it might be tempting to use AI tools to assist with the anonymization process of text. Participants have the right to not be subject to AI based decision making processes. This right can only be waived if the participant gives explicit consent to the treatment of their data with AI. This is governed by Article 22 of the GDPR (European Parliament & Council of the European Union, 2016).

Table 5: Shows a description of common data anonymization methods that are used with survey data.

Anonymization method	Description
Banding or bracketing	This is a method that removes some of the granularity of the data by arranging the raw values in categories instead of using the raw values for analysis.
Generalization	This method is often used for text data from open questions. It involves generalizing identifying details, such as not mentioning city names and using the region instead.
Recoding	This method focuses on lowering the number of categories in your dataset. It is done by merging detailed subcategories into more general overarching categories. This will make it more difficult to single out participants based on small categorical samples.
Top/Bottom coding	This method is a variation of banding/bracketing that aims to obscure extreme values that would otherwise make it possible to identify somebody. For example, if you have a person in the extremes of age or income ranges, it makes more sense to change the values to 'above 80 years' or 'above 150.000€'.

The following AI-generated examples (Figure 7) show how these techniques can be used to anonymize survey data. The first table contains information such as occupation, age, gender, city and income. These are indirect identifiers that could potentially be used to infer the identity of a person. Figure 7 shows what the survey data could look like when applying anonymization methods such as banding and generalization.

Survey data with indirect identifiers

Stakeholder Type	Age	Gender	City	Income (USD)
Aquaculture Farmer	45	Male	Bergen	75,000
Offshore Wind Energy Operator	38	Female	Copenhagen	85,000
Local Government Official	50	Female	Hamburg	90,000
Aquaculture Farmer	32	Male	Trondheim	70,000
Aquaculture Farmer	40	Female	Edinburgh	80,000
Offshore Wind Energy Operator	29	Male	Rotterdam	78,000

Survey data anonymized

Stakeholder Type	Age Range	Gender	City	Income Range (USD)
Aquaculture Farmer	40-50	Male	Western Norway	70,000-80,000
Offshore Wind Energy Operator	30-40	Female	Eastern Denmark	80,000-90,000
Local Government Official	50-60	Female	Northern Germany	80,000-100,000
Aquaculture Farmer	30-40	Male	Central Norway	60,000-70,000
Aquaculture Farmer	40-50	Female	Eastern Scotland	70,000-80,000
Offshore Wind Energy Operator	20-30	Male	Southern Netherlands	70,000-80,000

Figure 7: Shows an example of how survey data with indirect identifiers can be anonymized.

By using techniques such as those mentioned in the example, you can keep your data valid while also ensuring that you obscure indirect personal data. However, work to avoid making changes that change the underlying structure of the data, as doing so will impact your results.

3.4.4 RISKS AND GOOD PRACTICES WITH ANONYMIZATION

When anonymizing workshop, interview, and survey data, focus on minimizing the following risks (Burt et al., 2021; Data Protection Working Party, 2014):

1. **Singling out:** Can you locate a person's record within a data set? For example, imagine a dataset containing anonymized records of fish health inspections conducted by regulatory bodies. If one record shows a rare disease and only one aquaculture farm managed by a specific stakeholder has that disease, anyone who knows this fact can identify the farm and the stakeholder.
2. **Linkability:** Can you link two records about the same person or group? For example, consider a dataset with anonymized records of fish harvests managed by different stakeholders and another dataset with anonymized records of environmental impact assessments. If both datasets contain timestamps, it might be possible to link a specific harvest to particular environmental conditions, thereby identifying the stakeholder responsible for the farm and the harvest.
3. **Inference:** Can you confidently guess or estimate identities using other information? For example, suppose a dataset includes anonymized data about the energy output of offshore wind turbines operated by different stakeholders and their maintenance schedules. If a turbine is known to be the only one undergoing maintenance at a specific time and the dataset shows that turbines undergoing maintenance have lower energy output, it might be inferred that the stakeholder responsible for this turbine has a lower energy output during that period.

It is important to note that no perfect technique exists for anonymizing data. **Anonymization should be considered and performed on a case-by-case basis.** None of the techniques presented can guarantee that the data is anonymized adequately by themselves. By combining these or other anonymization techniques, it is possible to minimize the risk.

In addition to the specific methods mentioned, keep the **good practices** in mind (Data Protection Working Party, 2014).

1. Identify, re-evaluate, and evaluate risks as you gather and work with your data.
2. Have a clear purpose for your anonymized data.
3. Consider implementing suitable safety measures to prevent unauthorized individuals from accessing the data.
4. If the data set is made public, it is good practice to disclose which anonymization technique was used.
5. Always eliminate clear identifiers.
6. Think about data minimization; do you need to collect the data you are collecting?

4 INDIVIDUAL DATA COLLECTION

4.1 DEFINITION

Information from individuals can be useful to understand the context in which a project is taking place, the opinions and perceptions of those who interact with or have a stake in the project or project outcomes, and to improve projects, products and programs. Here we discuss collecting information using two classic social science research methods: **interviews** and **surveys**. In this context, interviews refer to semi-structured interviews, in which a scripted questionnaire is used to structure conversation, but the interviewer remains somewhat flexible, responding to the information participants share.

As the considerations necessary to well-designed interviews and surveys overlap, we take an integrated approach. Once you have walked through the integrated approach, you will have enough information to choose the method or combination of methods that meet your needs.

Note that rigorous social science, like any science, requires expert training. We recommend that you work with partners who are trained in survey and interview methods for the best results.

4.2 AN INTEGRATED APPROACH FOR SURVEYS AND INTERVIEWS

Table 6: Shows the different questions you need to ask for each step of individual data collection.

4.3 APPLYING THE INTEGRATED APPROACH FOR SURVEYS AND INTERVIEWS

Here we walk you through the steps to scoping, designing, and conducting well thought-out individual information collection.

4.3.1 CONTEXT: DEFINING CRITICAL CONTEXT FOR THESE METHODS

Before planning your information gathering, we recommend that you take inventory of the resources you have available, any constraints you face, and any requirements you need to fulfill.

What expertise can you access?

Inventorying the expertise and experience embodied in your research team will help you assign roles, foster better in-team collaboration, and identify gaps. Beyond your research team, you may also identify others who can support your efforts on a more *ad hoc* basis, by, for instance, providing feedback on question wording, pilot testing questionnaires, or advising on institutional and regulatory requirements.

We recommend early and ongoing inclusion of at least one colleague trained in survey and/or interview methods when undertaking these types of engagement.

What financial and/or time constraints do you face?

Collecting and understanding information from individuals can be time-consuming, and support services can be expensive. Inventorying financial and time constraints, in the context of the information included in this guide, will support feasible, quality work.

Do you need to seek ethical review or other types of pre-approval?

In some contexts, research with human subjects requires prior ethical review and approval from the researchers' home institution or another agency. The details of these requirements vary widely: in different contexts, countries, different types of information-gathering activities may or may not be considered research, and even where review is mandated, different types of information gathering may be exempt from review requirements. It is your responsibility to identify and comply with any requirements for ethical review that apply to your work.

Note that requirements for ethical review may be combined with or distinct from personal data handling requirements and requirements for informed consent. For more information on the latter, see Ethical considerations and informed consent:

Personal data management.

4.3.2 SCOPE: FOUNDATIONS OF METHODOLOGICAL CHOICES

What is your goal?

Being specific and intentional about your goals is the first step to successful information collection.

- ***Conduct scientific research:*** If your goal is to conduct rigorous, empirically valid scientific research using social science research methods, you will need to consult a trained specialist in those methods. This will allow you to gather and rigorously analyze accurate, representative data from a specific, bounded set of respondents, about a specific, bounded phenomenon of interest, using methods that are empirically validated and replicable. This integrated approach should still be useful to you as you specify the details of your research.
- ***Gather information:*** If your goal is to use social science methods to gather information from people of interest, be specific as to why you want that information and what you intend to do with it. This integrated approach should be especially helpful for you.
- ***Co-creation:*** If your goal is to engage in co-creation of a project, program, policy or proposal – that is, to engage with groups of interest to iteratively design or improve your output – the information in this integrated approach is likely to be useful. However, we direct you especially to Chapter 4: Collective engagement and data collection.
- ***Influence people:*** If your goal is to influence people's perceptions or opinions, you will find this integrated approach less helpful. Push polls, for example, are strategic tools that use the survey format to influence respondents. They are beyond the scope of this guide.

What do you want to learn?

Related to "Who do you want to engage with?"

Articulating an overarching question that you seek to answer will keep your work on track and help you be more efficient in your use of time and resources. Once you have identified your overarching question, we suggest creating a topic list that covers the topical areas in which you are most interested. The topic list can be ***ad hoc***, generated by speaking to those with special expertise in the phenomena of interest, or guided by **existing frameworks** and **theories**. The latter two approaches can help focus the engagement and build on existing knowledge. Note that different topics may be more appropriate for different types of participants; you may wish to design multiple versions of your questionnaire to address this issue (see *What questions will you ask?*).

What do you think you already know?

You may have a great deal of expertise in the phenomena you are inquiring about; we encourage you to inventory that knowledge. You may also have certain preconceived notions. In our experience, overarching questions are often grounded in certain unspoken **assumptions** about the phenomena of interest: for example, 'how can we demonstrate that nature-based solution X is socially sustainable?' assumes that X is, in fact, socially sustainable. Identifying these assumptions and related, unspoken hypotheses (nature-based solution X is socially sustainable'), and recognizing where your own **biases** are influencing your approach, will allow you to design information-gathering activities that accurately reflect the phenomena of interest rather than designing engagement that reflects your own preconceived notions by default.

We also suggest working iteratively through your topic list with this reflexive frame in mind. Once the list is complete, approach it with a critical eye or have someone with relevant expertise review it. Take the opportunity to identify assumptions, subconscious biases (including topics of interest you might have omitted), and unstated hypotheses, then revise to either remove these or make them explicit.

Who do you want to engage with?

Related to Scope: "What do you want to learn?"

Scoping the **target group(s)** – the types of respondents – you want to engage with is an important step towards success. Respondent groups are usually bounded by some common characteristic(s) and differ on other characteristics (e.g., people working this job in this industry, but people of any age or gender). Specify the respondent groups you want to engage, and why. This will result in more usable information and help you make subsequent decisions about where and how to engage, what to ask, and so on.

- **People/the general public:** If you wish to engage with people in general or 'the general public,' you will still need to narrow your bounds. Sometimes this will involve making explicit bounds that are assumed: for instance, nationality, age, income, housing status, or likelihood of engaging with a product (so Dutch residents of coastal communities, as an example). Failing to clearly delineate your target group(s) may result in too much demographic or other diversity amongst your respondents, making it difficult to systematically understand the information you collect. Generally speaking, the greater the diversity of respondents, the more respondents (i.e., larger sample size) you need to engage (Perez, 2024).
- **Stakeholders:** 'Stakeholders' is a common term that is often poorly scoped. If you wish to engage with stakeholders, we recommend that you start with stakeholder mapping to help create clarity about the specific stakeholders you will engage and why. For more information on stakeholder mapping see: Durham et al., (2014) and Reed et al., (2025)
- **More bounded groups:** As already seen above, surveys and interviews are often targeted to even more specific groups. Perhaps after further consideration you realize that not all Dutch residents of coastal communities are of interest; perhaps your interest is focused on Dutch homeowners in three specific coastal communities where natured-based solution X is deployed. When bounding, develop a specific understanding of both the salient common characteristics (home ownership, community of residence) and the variation (income, gender, attitudes towards NbS X) in the sample you select.

Do you prefer to gather broader or deeper information?

Related to "What do you want to learn?" and "Who do you want to engage with?"

Different kinds of overarching questions lend themselves to different approaches to information gathering. If you are interested in how a small group of potential users perceive and interact with a complex decision-support tool, for example, you may prefer deeper information. If your interest is whether a larger group of potential consumers are likely to purchase a new product, you may prefer broader information. In many cases, you may wish to collect both.

4.3.3 DESIGNING YOUR OVERALL METHODOLOGICAL APPROACH

What kinds of people will be participating?

Related to "Who do you want to engage?"

Once you have identified the targets of your engagement, you should consider their **levels of expertise**. Are you engaging participants with high levels of technical expertise in the

phenomenon of interest, lay experts, or people with no special knowledge? The answers to these questions will inform the types of questions you ask as well as the language and concepts you use when designing your questions and possible responses. Check your assumptions about the degree to which concepts and terminology are shared or familiar to your participants and default to simple language where possible. Specialized jargon should be avoided or defined in the course of engagement.

How many people will participate?

Related to "Who do you want to engage", "What kinds of people will be participating", and "Do you prefer broader or deeper information?"

It can be difficult to know up front how many people will participate in your research; however, you should set a **target sample size** (how many participants you hope to have).

In general, for surveys, your target sample size will depend on how many possible participants exist, or the universe of potential respondents – that is, not just those you can think of or know you can reach, but how many there are in the target group you bounded when you answered *Who do you want to engage*? In some cases, publicly available information can be used to scope the universe of potential respondents; in other cases you may need to take a best-guess approach. Understanding the universe of potential respondents will help you understand how to design a sample that represents the group(s) you're interested in as a whole (Perez, 2024). Once you understand the universe, you can start to identify ways to contact them (see *How will you identify possible participants?*). Of the people you're able to contact, some will agree to participate (see *How will you secure participation?*); the percentage who complete the questionnaire will vary with how you choose to administer the survey (see *How will the questions be administered* and *What platform(s) will be used for engagement?*) as well as other factors. Often, less than half of those contacted may complete a survey, and response rates can be even lower (Wu et al., 2022) (see *How will you ensure high quality responses?* for some ideas on increasing response rates). The possibility of low response rates should be taken into account when deciding the target sample size.

For interviews, your target sample size will depend on the size and constitution of the group(s) you seek to speak with. In general, it's a good idea to triangulate information by securing more than one respondent from each category of interest, with categories of interest grounded in the choices you made when you answered the question *Who do you want to engage?* For example, if you seek to speak with people affected by nature-based solution X across three Dutch communities, you might wish to speak with those who work directly with the technology and those impacted by it across the sites. Direct work with the technology might include installation and servicing, each of which might be undertaken by a different company; similarly, impact might include benefits or costs that accrue to diverse types of residents or users in the communities of interest – for example, homeowners, shellfish growers and surfers. As shown below, 30 interviews is a good starting target that covers the diverse groups of interest for this example.

Table 7: Shows interview sample size and participant categories.

	Community A	Community B	Community C
Company Y (installation)	2	2	2
Company Z (servicing)	2	2	2
Community homeowners	2	2	2
Community users (shellfish growers)	2	2	2
Community users (surfers)	2	2	2

You may revisit your desired number of interviews as engagement progresses. A good rule of thumb is to sample to saturation – that is, continue interviewing until new participants in a given category are not providing new information (Perez, 2024).

What questions will you ask?

Related to "What do you want to learn?"

The substance of your questions can be drawn from the topic list you generated during the scoping phase. Note again that different topics may be more or less appropriate for different types of respondents; you may wish to create multiple versions of your questionnaire that target different audiences, which will in turn affect your total sample size (the sample for any single question being all those who answer, and excluding those who respond to a version of the questionnaire that omits that question – see *How many people will be participating?*).

Designing questionnaires for surveys and interviews is a science in and of itself, and full discussion is beyond the scope of this guide. Here we introduce overarching considerations that should guide your questionnaire design.

❖ Validity and reliability

By **validity**, we mean that a question measures what it is intended to measure. By **reliability**, we mean that a question measures the same thing for everyone who answers it. Both underpin your ability to draw conclusions from the information you gather, and both require careful attention to question wording and questionnaire design (see *How will you ensure high quality responses?*). Questions should be phrased as neutrally as possible – refer to any biases you uncovered during scoping, and make sure that these are not reflected in the questions you ask. Be particularly careful about questions phrased in such a way as to elicit a pre-determined response. For example: 'Do you care about a sustainable future for the children of Community A?' has only one possible answer for most people and thus does not meaningfully measure attitudes towards sustainability.

Question order can also influence the responses participants provide. Opening with a question on a topic that might be triggering can shut down an interview from the start or ground the conversation in conflict mindset. Opening questions for both interviews and surveys should be easy to answer and leave the participant willing to engage further. For interviews, opening questions can also be used to establish rapport (see *How will you ensure high quality responses?*). Both surveys and interviews often open with questions that help to establish the respondents' suitability for inclusion in the sample (e.g., 'Can you tell me a little about your work as a shellfish grower?'; 'Do you own a home in Community A?').

Subsequent **questions should be grouped together by topic** to ensure smooth conversation or response, and follow-up items should occur immediately after the initial item they follow up, as it can be difficult for participants to remember how they responded previously. Controversial or triggering topics or terms, once introduced, are likely to color responses to subsequent questions, even those that seem unrelated, so they should be placed with care.

Closing items should bring the questionnaire to a logical conclusion. Questionnaires often close with a general item asking if there are other topics the participant would like to cover. You may also choose to allow participants to provide feedback on the experience of participating. Be sure to thank your participants for their time and effort in closing.

❖ **Respondent fatigue and response burden**

Certain respondents – key informants (see *How will you identify possible participants?*) in relevant communities, for example – may be engaged multiple times by multiple actors across multiple projects. This repeated engagement can lead to **respondent fatigue** or even burn-out, reducing willingness to participate in future work. Respondent fatigue can be mitigated by engaging respectfully: use co-creation strategies to be sure that the information you gather is useful for those participating, keep interviews and surveys to the point, and share your findings (see *What will your findings be used for?*).

Furthermore, any individual participant will only have so much patience for answering questions. **Response burden** is how time consuming and cognitively difficult it is to provide responses. You should aim to keep response burden low. For interviews, provide an estimated duration up front and guide the conversation to stay within the allotted time. Response burden is also very pertinent for surveys, where people do not have the luxury of thinking through their answers out loud or modulating their responses. Provide your participants with questions that are easy to answer by, for example, using consistent response formats across multiple items (see *What kinds of answers do you want?*). Keep surveys short: 10-15 minutes or less (Sammut et al., 2021).

What kinds of answers do you want?

Related to "How many people will be participating?"

Responses to surveys and interviews can be either closed-ended (the participant selects from a list of options) or open-ended (the participant replies in their own words). Some combination of the two is often used.

❖ **Closed-ended items**

Closed-ended items are used mostly, but not exclusively, in surveys. Well-crafted closed-ended items reduce response burden by giving the participant a list of options from which to choose their reply. Responses can presented as scales, lists, comparisons, etc.

Numerical scales should be clearly anchored (e.g., On a scale of 1-10, with 1 being not at all confident and 10 being fully confident, how confident are you that nature-based solution X is sustainable?). Ideally, response scales should be centered at the actual mean response, although this can be difficult to know in advance; they should also allow negative responses (e.g., How much do you agree or disagree with the following statement: Nature-based solution X is sustainable; response options Strongly disagree/Disagree/Neutral/Agree/Strongly agree/Don't know; Westland (2022)) . The best number of points to include on a response scale is context-specific and to some extent a function of personal preference; common agree/disagree (Likert)

response scales include 5-7 points, with a neutral point in the middle, while forced choice response scales use 4-6 points and omit the neutral middle, forcing participants to choose a side (Tanujaya et al., 2022). Including an 'Don't know' response option improves many scales, especially where participants are being asked to evaluate something on which they are not an expert.

The simplest **list response** is 'Yes/No/Don't know' (for example, in response to 'Do you believe nature-based solution X is sustainable?'). More complex list responses allow participants to choose one or more items off a longer list. Lists should be constructed with care to anticipate both the most common and most interesting responses and allow participants to nominate their own responses. You should also consider trade-offs between granularity and length. For example, when asking community members how they use a coastal area, the response list 'Recreational activities/Commercial activities/Other use [please specify]/Don't use' may be too high-level to provide the desired information. However, the list 'Longboard surfing/shortboard surfing/wind surfing/swimming/volleyball/fishing for pleasure/fishing for food/commercial fishing/foraging for pleasure/foraging for food…' (and so on) may be overly burdensome and result in less reliable responses. The 'Other [please specify]' response option should be included in response lists unless there is a specific reason to omit it.

Items that use **ranking response scales** – requiring the participant to order by preference, for example – are perceived to be more cognitively burdensome than either scales or lists (Del Grande & Kaczorowski, 2023), and should be used with caution.

- **Open-ended items**

Open-ended items are used mostly, but not exclusively, in interviews (note that any fill-in-the-blank survey item is open-ended by definition). Open-ended items are especially appropriate when you seek to elicit deeper information, for instance specialized knowledge or experience, nuanced opinions, or detailed perceptions.

Useful responses often come from grounding open-ended questions in the context and/or phenomena of interest: for example, 'When you think about Community A, what does social sustainability mean to you?' or 'When you think about nature-based solution X, what does social sustainability mean to you?' Questions asking 'why' can best be addressed through open-ended items, sometimes as a follow-up to closed ended items (see *How will you ensure high-quality responses?*).

4.3.4 LOGISTICS OF PARTICIPATION

How will you identify possible participants?

- **Building a sample:** Building your sample requires identifying the individuals who will participate in your engagement and considering how they relate to the universe of potential respondents (see *How many people will participate?*). The best samples are fully representative – that is, they are a microcosm of the universe across participant characteristics – but representative samples can be difficult to obtain. Sampling strategies that fall short of full representation can be improved by a clear understanding of sampling bias – that is, making explicit the ways in which the sample does or does not represent the universe. If all shellfish growers in our three Dutch coastal communities are publicly registered with contact information available, we know the universe of potential respondents. We may call all of them, but not all of them will agree to

participate in our survey (see *How will you secure participation?*). In this case, comparing demographic or other information that is available for the universe with that same information for our sample will allow us to understand some components of sampling bias. For ideas on how to secure more representative samples, see *How will the questionnaire be administered?* Sampling strategies are often driven by pragmatic considerations. Some of these strategies are discussed below.

- **Convenience samples:** Convenience sampling relies on networks of existing contacts, attendance at an event, enrollment in a course, or some other ready-made group that you can easily access. Convenience samples are likely to be inherently biased by factors that shape group constitution – for instance, homeowners who hold full-time jobs are less likely to attend a community event than homeowners that are retired.
- **Mediated samples:** In some cases, a single local or organizational contact may act as a mediator of invitations to participate. This can be an excellent way to access people you might otherwise not be able to contact. However, mediated samples can also introduce sampling bias, as you may be directed to those with a particular perspective or set of opinions.
- **Key informants:** When we want to understand a larger, potentially heterogeneous group using interview methods, we often seek key informants – people with special expertise on the phenomena of interest. Key informants may be topic experts or local leaders – they are often people who hold a specific position and can thus be seen to represent (to some extent) a larger population. When seeking to understand how deployment of nature-based solution X affects surfers, for example, we might speak with presidents of local surf clubs.
- **Snowball sampling:** Snowball sampling is asking people who have already agreed to engage to suggest additional possible participants. It can be particularly useful to build larger interview samples. However, because of the nature of communities of practice and other networks, snowball samples can result in an echo chamber effect. The technique is best used to supplement an already diverse set of contacts.

How will you secure participation?

Initial invitations to participate should be short and to the point but provide the participant with enough information to choose whether to participate. Invitation format will depend on the context, but email invitations are very common. Initial agreement to take part in surveys or interviews is generally only the first stage and often does not meet the requirements of full informed consent (see Legal basis for processing personal data) To increase participation among people who don't immediately respond, consider sending a polite reminder about a week after the initial invitation, followed by one more 4-7 days later(Sammut et al., 2021). If you still receive no response, it's likely a no.

Be aware that participants may ask to see interview questions up front; where possible, we prefer to provide a topic list instead to avoid scripted responses.

Informed consent: After an initial invitation has been accepted, informed consent to participate should be secured and documented. The format and content of the informed consent will vary with the method you are using. Furthermore, depending on the context in which you work, formal institutional and/or legal requirements may mandate the details of the information provided and documentation of consent. Please see Chapter 2C: Consent for more details.

When will you engage?

Engagement should be at a time that is convenient and comfortable for the participant. Consider possible conflicts with your target groups' activities, and schedule around them – for instance, avoid scheduling engagement with Company Y (responsible for installing nature-based solution X) during the busiest construction season.

Collect results during a discrete window of time to help ensure that the context surrounding participants remains as constant as possible, as changes in circumstances or events surrounding the phenomena of interest can influence responses and make results from different time periods difficult to compare.

When timelining your engagement, remember to leave time up front to pilot and revise your questionnaire (see *How will you ensure high quality responses?*).

4.3.5 PRE-ADMINISTRATION AND ADMINISTRATION

How will the questions be administered?

Surveys and interviews are commonly administered by members of your research team (see *How will you avoid introducing bias during administration?*). Survey software is available to help design online questionnaires; basic design is usually free, while more complex designs and hosting services require payment.

- **Working with translation or interpretation:** Surveys administered in a language other than the language they are written in should be forward-translated and back-translated by a native speaker to ensure that meanings remain consistent (for example, translate from English into Dutch and then from Dutch back into English). **AI translation** services can provide translation support but to date we have found them to be of insufficient quality to act as a sole translation provider for surveys, interview scripts, and other instances where phrasing and connotation are critical.
  Interviews should ideally be conducted by a fluent speaker of the participants' language. When this is not possible, working with **interpreters** can allow you to access participants you would otherwise be forced to exclude. However, working with even trained interpreters can change the dynamic of the interview and make building rapport more challenging (see *How will you avoid introducing bias during administration?*). Working with untrained interpreters can result in distorted or inconsistent questions and a poor understanding of actual responses.
- **Survey/polling companies:** Hiring a survey or polling company to lead administration can be expensive, but if your budget allows it, using a company can simplify engagement logistics. Survey and polling companies can administer interviews or surveys and provide the resulting data, freeing up your research team members to work on other tasks. They can also provide translation services and interpretation or format your survey for use on a cellphone (see *What platform(s) will be used for engagement*?).

What platform(s) will be used for engagement?

Interviews can be conducted in person, on the phone, or online (e.g., with Skype, Zoom, Teams). Although they are not always feasible, in-person interviews generally provide the best opportunities to establish rapport with participants (see *How will you ensure high-quality responses?*). Interviews conducted over the phone or online may be subject to technical hiccups

that interfere with both the flow of conversation and good information gathering. Ideally, interviews should be held in a quiet place, free from distraction.

Surveys can be conducted in person, over the phone, via postal mail (increasingly rare), or online. Although they can be administered orally, surveys are usually in written format.

Consider the needs of your target sample, and their access to technology, when choosing an interview or survey platform. Is internet reliable for your respondents? Are people likely to engage on a cellphone rather than a computer screen (important for questionnaire formatting)? Will selecting a particular platform bias your results (to only those with mailing addresses or internet access, for example)?

How will you ensure high-quality responses?

- **Pilot testing**

Both survey instruments and interview scripts should be pilot tested prior to data collection. Pilot testing will help ensure the validity and reliability of your items (see *What questions will you ask?*) by flagging question wordings that are unclear, inconsistently interpreted, or easily misinterpreted. Pilot testing will also help you estimate response burden (see *What questions will you ask?*), in terms of both completion time and difficulty of parsing questions and response formats, and identify any technical hiccups. Pilot testing should seek input from multiple individuals. Look for people who are similar to your sample, but not part of it, and run them through the interview or ask them to take the survey. Solicit their input on their experience and adapt your questionnaire accordingly – be sure to leave time to revise your questionnaire in response to pilot tests. The following Table 8 provides an overview of the different steps in the pilot testing process (Adapted from Misa (2024)).

Table 8: Shows an overview of the different steps in a pilot testing process.

Steps	Description of steps
What is the objective?	Before running a pilot test, you should have a good understanding of why you are doing a survey or interview. This will make it clearer what the focus of the test should be.
Who is your sample?	Select a sample that is representative of your target sample, and you need to use the same sampling method as in your main study.
Preparing for the pilot test	Create the process you will use to perform the pilot test, for example if you are doing a survey, you should use the same structure as in your main study.
Conducting the pilot test	Have your selected sample fill out the pilot survey or participate in pilot interviews.
Analyzing results	Analyze that data collected during the testing and look for issues or errors in your design.
Refine your study	Make the necessary changes to your survey or interview based on your analysis of results.
Repeating the pilot test	Often it is good to do a new round of pilot testing after the changes have been made to ensure that they are addressing the issues identified in your analysis.
Documenting the process	Keeping detailed documentation of the entire pilot testing process is important as it provides additional reliability measures and makes the process more transparent.

❖ Incentives for participation

Incentives for participation can take a variety of forms, including cash, gift cards, or small gifts. Incentives can also be offered as a lottery, so that participants receive a chance to win some pre-determined prize rather than individual incentives. Some commonly used online survey platforms pay members of the public mall sums to participate in surveys; incentives can also be used with self-administered survey samples and for interviews.

Incentives are necessary in some cultural contexts. Some Indigenous communities, for example, have deep cultural norms of reciprocal gift giving. Respecting these norms through a formal exchange that recognizes the value of participants' knowledge and time will help build rapport with the community. In other contexts, offering incentives will allow those with lower incomes or busier schedules to participate, by partially offsetting their participation costs (e.g., time away from work).

❖ Attention checks

Online surveys, especially those that offer participants some form of incentive for participating, often include attention check items. These aim to identify people who are providing potentially invalid responses. Attention check items do not address the topics of interest but instead offer a simple instruction (for example: 'In response to this item, please select 5'). Failure to follow the instruction is taken to be an indication that the participant is not reading the items and thinking before they respond, reducing the usefulness of any information they provide. Those who fail attention check items are usually excluded from the final sample.

❖ Single question format

Avoid combining multiple questions into one. Questions like 'How important is surfing and spending time on the beach for you and your family?' require additional parsing, increasing cognitive burden (does the participant answer about surfing, or spending time on the beach? For herself, or on behalf of her whole family?) and eliciting inconsistent (low reliability) responses. In this example, the item should be split into at least four separate questions, after which you can assess if all four are equally necessary.

Asking one question at a time is equally important for surveys and interviews. While it may seem that the freer response format of interviews allows for more flexibility on this point, different participants are still likely to answer different parts of the item, reducing comparability between responses. And although there is a tendency to bundle 'why' questions in interviews (for example, 'How important is surfing to you and why?'), we also recommend splitting 'why' questions into their own item (so 'How important is surfing to you?' [Response] 'Why?'). Interview participants will often provide justification for their answers without prompting; listening to their full response, and reacting to what they say, will help build rapport.

❖ Rapport

Building rapport is particularly important for interviews. Rapport building begins with initial contact, and cultivation of rapport should carry all the way through sharing findings, but here we focus on rapport during the interview itself.

Rapport means creating a relationship and environment in which the participant feels comfortable, safe, heard, and accepted. Ideally, an interview should feel like a conversation, but

it is not a true conversation – the focus is on the participant and the information they are sharing. To build rapport, we recommend engaging in active listening and asking informed follow-up questions as necessary. All interview responses are interesting and should be treated as such; furthermore, no interview responses are wrong – avoid interrupting, and do not react to statements with which you disagree, even if you believe them to be factually incorrect. The interviewer's job is to guide the conversation towards the questions and topics of interest and to create space for the participant's authentic responses, rather to provide their own input.

- **Anonymity**

Providing respondents anonymity is often the best way to elicit candid responses, especially about challenging or controversial topics. Approaches to anonymizing data are discussed more in Chapter 2, Dealing with personal data.

How will you avoid introducing bias during administration?

The person who administers a survey (if conducted orally) or interview should be trained to do so. If your research team members lack such training, a good first step is to have them practice while piloting the questionnaire. In this case, participants in pilot testing should be encouraged to provide feedback not only on the questionnaire but on the interviewer's technique. Pilot testing can be conducted with one team member interviewing, and one watching; however, we recommend against the use of multiple interviewers during formal information collection. Having multiple inquisitors can change the power dynamic and make participants more reluctant to share – in other words, it can challenge rapport.

- **Unbiased administrators**

Interviewers or those orally administrating surveys must be unbiased (or at least capable of maintaining an unbiased stance for the duration of the activity). Carefully crafting your questionnaire to make sure that questions are worded as neutrally as possible, and being faithful to those wordings during administration, is a good first step. But if you demonstrate through tone, body language, or other cue that there is a 'right' or preferred answer, or react to an answer in such a way as to make the participant feel judged or defensive, you have undone that work, likely undermined your credibility, and possibly biased the participant's responses.

- **Neutral prompts**

While interviewing, use neutral prompts to follow up on interesting points that arise. Neutral prompts are simple, neutrally phrased requests for more information, such as 'Can you tell me more about that?'. Neutral prompts specifically seek to avoid introducing bias: 'You mentioned the environmental impacts of nature-based solution X. Can you expand on that?'

- **Recording information**

Audio or video recording of interviews ensures that all information that is elicited during the interaction is captured. When recording interviews, participant consent to be recorded must be obtained and documented, and recordings and transcripts must be treated as personal data (see Chapter 2). Some participants may simply prefer not to be recorded; in such cases, a back-up plan is necessary.

Some sources recommend against taking detailed notes during an interview (Knott et al., 2022), as doing so may introduce distraction or interfere with rapport. However, for some respondents, taking notes provides clear demonstration of the interviewer's interest and attention.

Furthermore, absent recording, real-time note taking can capture information that might otherwise be lost; it also allows the interviewer to capture their own thoughts and reactions, which will help mitigate against letting those reactions bias later recollection.

Regardless of your choice of recording technique, we recommend writing a memo immediately after each interview, recounting the primary points of interest, new or surprising information, and any salient interviewer reactions to the information shared.

Survey platforms normally directly capture participants' responses. When surveys are administered orally, responses are normally directly captured into the questionnaire by the administrator (circling the respondent-provided value, for example).

4.3.6 COLLATING AND SHARING FINDINGS

How will you analyze your findings?

Related to What do you want to learn, What do you think you already know, What questions will you ask, and What kinds of answers do you want?

Plan your analysis before undertaking data collection. Although we briefly discuss some considerations here, full discussion of data cleaning, processing, and analysis is beyond the scope of this guide. For additional information, see the list of Further Reading below.

- **Data from closed-ended responses**

Closed-ended survey data can be transformed into numeric values and analyzed statistically. Simple descriptive statistics (for example, mean level of support for nature-based solution X among surfers or homeowners) can be illuminating on their own. Regression models and other more complex statistical analyses generally should be built into data collection methods and questionnaires from the beginning (see 'What do you want to learn?') rather than applied *post hoc*. We recommend consulting a methodological specialist early if you seek to run complex statistics on your findings.

- **Data from open-ended responses**

Open-ended responses can be informally analyzed by identifying common themes, lessons learned, or other less systematic groupings of information elicited from participants. While appropriate for some information-gathering activities, informal analysis should be undertaken with care to avoid introducing bias – be aware that we have a tendency to find what we look for and strive to allow the data to guide you.

Textual analysis is a formal, systematic approach to analyzing transcriptions, interview memos, and open-ended survey responses. The approach involves developing a set of numerical codes (coding scheme), each of which captures a specific concept of interest. Text is approached systematically, and a given code is applied to every relevant snippet of text. This allows all statements that mention safety, for example, to be identified and explored in more depth. Coders often apply multiple codes to single snippets. In our running example, the coding scheme might also include codes for aquaculture growers and surfers, so safety of aquaculture growers could be separated from safety of surfers. Like your topic list (see *What do you want to learn?*), codes can be developed deductively based on theory, expert input, or pre-existing knowledge. Codes can also be developed inductively, based on the texts that you are coding. A combined approach is often used, beginning with a set coding scheme but adding codes as unanticipated concepts occur. Once codes are applied, qualitative analysis software allows identification and exploration of the underlying structure of the information gathered from open-ended questions.

We recommend consulting a methodological expert early if you intend to undertake formal textual analysis.

What will findings be used for?

Related to "What is your goal?"

Regularly referring back to the goal set at the outset of this integrated approach will help you keep your engagement strategy on track and make sure that all the decisions you make support goal achievement.

Regardless of the goal you set, we strongly recommend finding a meaningful way to share your findings with your research participants and interested stakeholders more generally. This is particularly important in applied contexts, to demonstrate respect, maintain relationships, provide information and show the utility of your work, and mitigate against future respondent burnout. Technical reports or publications are not the most effective way to share findings with most stakeholders. Instead, consider written, plain-language summaries emailed to participants, policy briefs discussing the implications of your work and shared with decision-makers, community meetings, and other contextually appropriate fora.

4.4 SURVEYS OR INTERVIEWS?

Both surveys and interviews are useful tools for collecting individual level information and each method has different strengths and weaknesses. In general, surveys allow collection of more explicitly structured data from a larger number of respondents than interviews. Interviews often allow for deeper inquiry that allows development of more nuanced understandings.

The method or combination of methods you select depends on multiple factors, as well as personal preference. The answers you provided to the questions above should help you make an informed decision about the most suitable approach.

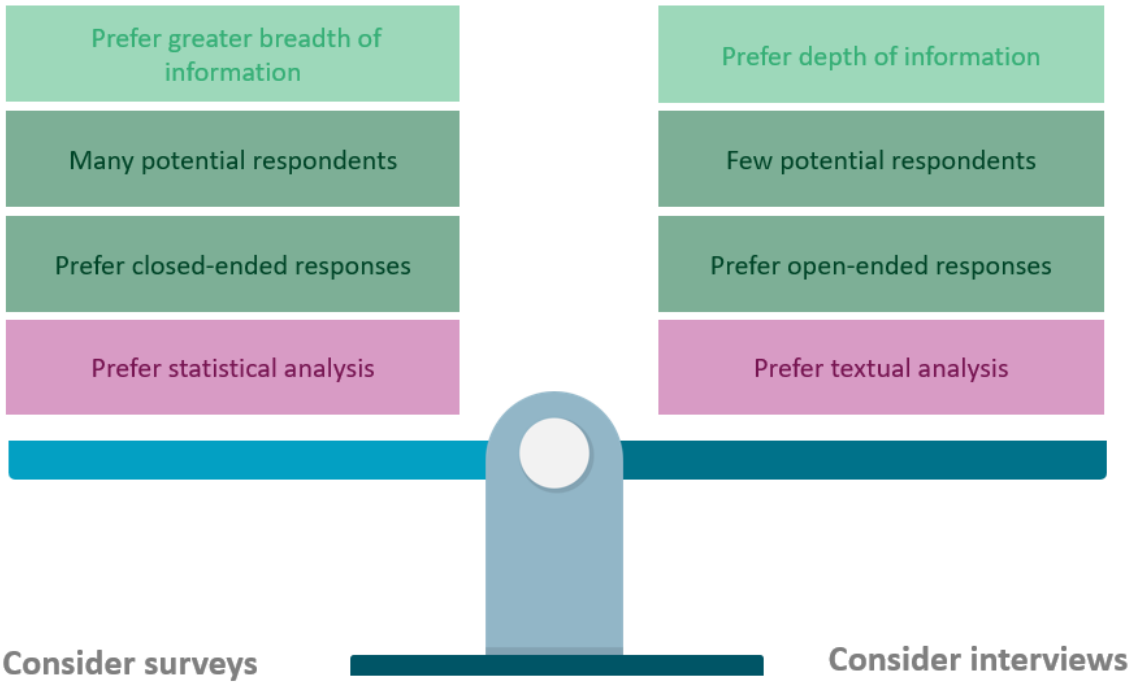


Figure 8: Shows the different considerations to be made that influences the choice to consider surveys or interviews for data collection.

4.5 INTERDISCIPLINARY WORK

As previously noted, collaboration between domain experts and experts in social science methods will be extremely useful throughout the individual data collection process. Table 4 presents the stages and sub-stages of the integrated approach in which input from a trained social scientist is necessary or strongly recommended.

Table 9: Shows the steps of individual engagement where participation of a trained social scientist is critical (blue) or strongly recommended (grey).

	Surveys	Interviews
Context	Need for ethical review or other types of pre-approval	Need for ethical review or other types of pre-approval
	Connecting to theory	Connecting to theory
Scoping	Goal is to conduct scientific research	Goal is to conduct scientific research
Design	Selecting a sample size	Selecting a sample size
	Validity and reliability	Validity and reliability
Logistics	Building a sample	Building a sample
	Informed consent	Informed consent
Administration	Unbiased administrators	Administration platform
	Rapport	
Findings	Qualitative coding and analysis	Complex statistical analysis

4.6 FURTHER READING

Dey, I. (2003). *Qualitative data analysis: A user friendly guide for social scientists*. Routledge.

Hancock, G. R., Mueller, R. O., & Stapleton, L. M. (2010). *The reviewer's guide to quantitative methods in the social sciences*. Routledge.

Knott, E., Rao, A. H., Summers, K., & Teeger, C. (2022). Interviews in the social sciences. *Nature Reviews Methods Primers*, *2*(1), 73.

Stockemer, D., Stockemer, G., & Glaeser, J. (2019). *Quantitative methods for the social sciences* (Vol. 50, p. 185). Cham, Switzerland: Springer International Publishing.

Young, J. C., Rose, D. C., Mumby, H. S., Benitez-Capistros, F., Derrick, C. J., Finch, T., ... & Mukherjee, N. (2018). A methodological guide to using and reporting on interviews in conservation science research. *Methods in Ecology and Evolution*, *9*(1), 10-19.

5 COLLECTIVE ENGAGEMENT AND DATA COLLECTION

In this section, we explore selected methods for collective engagement with a particular focus on workshop techniques that can be used to engage stakeholders in the marine sector. Alongside detailed descriptions of each technique, we provide illustrative examples demonstrating their application in hypothetical scenarios related to aquaculture, offshore wind development, and coastal protection initiatives. These examples highlight how tailored approaches can support more effective engagement and lead to more informed, inclusive and actionable outcomes.

5.1 WORKSHOP DEFINITION

It is important to be clear when using the term 'workshop'. **Workshops** are interactive, structured, facilitated sessions that engage participants in discussions, activities, and/or decision-making processes. They aim to leverage participants' collective intelligence and diverse perspectives to achieve a specified objective (Smart, 2024; Wirtz, 2024).

When designing a workshop, consider if you check the following boxes:

- **Active engagement:** Participants are actively involved in the process, contributing their ideas, experiences, and knowledge.
- **Structured process:** The workshop follows a planned methodology to guide discussions and activities, ensuring that the session remains focused and productive.
- **Collective knowledge:** The workshop taps into the collective wisdom of the group, encouraging collaboration and shared learning.
- **Inclusive participation:** Efforts are made to include all participants, ensuring that diverse voices are heard and valued.
- **Facilitation:** A facilitator guides the process, helping to manage discussions, keep the session on track, and ensure that objectives are met.

While workshops are a type of meeting, **not all meetings are workshops** (Wirtz, 2024). Meeting generally focus on endorsing or deciding, informing or delegating tasks. Workshops also differ from focus group interviews. **Focus group interview** is a specific interview technique that uses an in-depth group interview where participants are chosen for the purpose of answering or discussing a specific topic (Rabiee, 2004).

The following examples (Figure 9) show when it is appropriate to use each of the different methods and what the different outcomes could be.

*Case example 1: Imagine that there is a coastal village with a problem where the coastline is slowly being eroded. To tackle the problem, the local government organizes a two-day **workshop** that is focused on finding innovative solutions for coastal erosion. The workshop includes engineers, urban planners, environmental scientists, and community leaders. The outcome of the workshop is a draft for a set of proposals and design ideas for pilot projects that aim to tackle coastal erosion.*

- ✓ The workshop is appropriate as it encourages creative thinking, knowledge sharing, and cross-disciplinary collaboration.

*Case example 2: A small group of villagers have been especially affected by the erosion. To get in-depth opinions and perceptions, a **focus group interview** is done with this group of villagers. The outcome is qualitative insights into their lived experiences that can be used to inform planning.*

- ✓ The focus group is appropriate as it provides qualitative insights into how people feel about the project and the problem, which will help to ensure social acceptance and equity.

Figure 9: Shows examples of how workshops and focus group interviews have different purposes in a process.

5.2 BEFORE YOU GET STARTED

When organizing a workshop there are some points that should be clear to you as the organizer (Eich, 2023):

1. **What is the workshop's role in the broader process?** Is this workshop part of an ongoing initiative, or is it the starting point for future work? Understanding its place in the bigger picture will help shape its design and objectives.
2. **What is the topic of the workshop?** Be clear on the purpose of the workshop, frame the purpose and formulate the key questions that you will ask to participants. This will help set expectations and guide discussions.
3. **What are the workshop's goals?** Think about the outcomes and what you want to achieve. Select the most straightforward workshop method to achieve your goals.
4. **Who are the participants, and how many will attend?** Who is invited to the workshop and who is not? Inclusivity is key. Consider whether participants should be divided into groups and the number of facilitators needed based on the number of participants/groups.
5. **How much time is available?** Consider if there is enough time for the method selected. Allow for breaks and flexibility in the schedule.
6. **Where and when will the workshop take place?** Aim for a neutral and accessible location, especially if the topic is controversial. Make sure that the time is suitable for participants, and that it doesn't collide with other relevant events. Pay attention to the room, layout and resources needed.

Finally, take a moment to reflect on aspects like: Are there other factors that might influence the success of the workshop? What questions (if any) should participants consider in advance to come prepared and engaged?

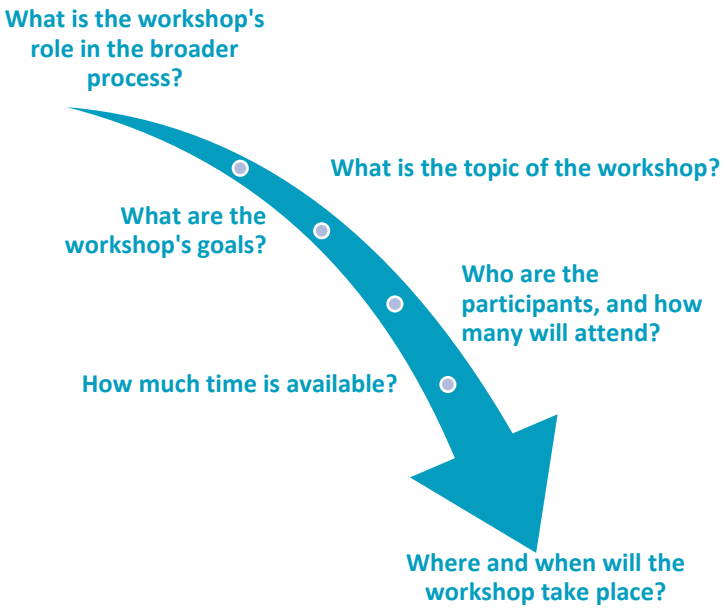


Figure 10: Shows some key points to consider when planning a workshop

5.3 WORKSHOP KIT

Below we present some common workshop materials. However, the materials you need depend on the workshop technique.

- **Sticky notes or Cards:** can be any form of smaller sheets of papers that can be affixed to a larger piece of paper, for example Post-it notes.
- **Writing utensils:** It is recommended to use felt-tip pens as they are easy to see from a distance. Use easily readable colors (e.g., black not yellow).
- **Large paper sheet:** A2 is an appropriate size, you need at least one for each group. Often, butcher paper or flip chart paper.
- **Display area:** You need something to hang the large sheets of paper on, such as a pinboard or an appropriate wall. Note if you write on a wall, make sure to have several sheets of paper to avoid the pen bleeding through to the wall.
- **Adhesives:** In some cases, you would need an adhesive such as Blu Tack, tape or a glue stick to affix cards to your paper sheet or to affix the paper sheets to the display area.
- **Watch:** You need something to keep time; a stopwatch on your mobile phone works well.
- **Dots:** You need dots to visualize the voting.

5.3.1 TIPS FOR FACILITATION

Based on author's experience, there are some important points to keep in mind when facilitating:

Create an emotional/social connection with participants

- Introduce yourself and find common ground among participants
- Be empathetic, build trust and ensure inclusivity so everyone feels part of the discussion
- Foster a positive atmosphere

Know your audience

- Understand the participants' backgrounds and dynamics
- Split participants into groups to mitigate power imbalances (if relevant)
- If prior knowledge of participants is not possible, observe their body language and attitudes to identify varying power levels

Introduce the topic clearly

- Define the framework and goals of the discussion
- Give participants clear instructions, for example, how to fill sticky notes
- Avoid assumptions; ensure everyone understands the topic by defining key concepts

Plan methodology and timing

- Share the methodology and schedule with participants in advance
- Include sufficient breaks and schedule at a convenient time for participants
- Prepare thoroughly, send reminders and confirm attendance
- Draft a script for each session, adhere to the plan and use consistent templates while adapting as needed

Have a plan B

- Prepare backup questions to stimulate discussion if needed
- Consider new ideas

Identify benefits for participants

- Explain the benefits of attending
- Invite key participants personally

Ensure everyone has a chance to speak

- Make eye contact with all participants
- Allocate speaking time fairly, preventing any single participant from dominating
- Involve all participants; encourage quieter individuals and manage dominant speakers

Facilitator must remain neutral

- Create an environment where people feel comfortable sharing their opinions
- Facilitate discussions without injecting personal opinions
- Moderate the discussion to stay on topic

Summarize the discussion

- Recap parallel discussions in plenary session and outline how workshop results will be followed up.
- End on a positive note and explain how the workshop information will be utilized.

Document the workshop

- Summarize the workshop immediately after it concludes to capture details accurately
- Take photos and recordings (when possible) while adhering to GDPR regulations

As a facilitator it will also be your responsibility to divide the participants into different groups. There are several ways to do this and no technique is necessarily wrong. We will present three methods of assigning participants to groups:

- **Random assignment:** This technique can be done by counting off from one to four (if you want four groups), and if a person receives a one, they are in group one and so on. If you are hosting an online workshop, you can ask a program such as Teams to randomly divide the participants.
- **Pre-assigned groups:** The facilitator divides the participants before the workshop, either randomly or by some predetermined criteria.
- **Passport technique:** This technique, also known as student sign-up, involves the facilitator deciding how many groups they want and then assigning a number or a topic to each of the groups. Then the facilitator creates a passport sheet with either post-it notes or tear away sections that will determine the group size. These constitute the passports. Note: Remember to write the group number on the passports. During the workshop, explain that the participants can pick the group they want, but they need to have the correct passport to join the group. They are not allowed to take their passport before the facilitator gives the ok (Barkley & Major, 2023).

When making groups it is important to keep the different group dynamics in mind. The groups should not be of an appropriate size related to the workshop technique. There might also be underlying power dynamics that exist outside of the workshop that influence the groups. Finally, some people might become demotivated if they have to be in a group that tackles a topic they have little knowledge about, if there are other topics that they possess expert knowledge about.

5.4 WORKSHOP TECHNIQUES

According to the stakeholder engagement goals identified by demonstrators in this project, based on our experience, we have selected **four types of techniques** that might be relevant for demonstrators working to design workshops on marine Nature-based Solutions:

- **Set the scene:** These are start-up techniques that highlight 'where we are today' and 'where we want to go'.
- **Generate:** These are techniques to stimulate idea generation and/or encourage participants to share their knowledge. The emphasis is on quantity and diversity of ideas without immediate evaluation.
- **Connect:** This technique aims to define relationships between phenomena.
- **Narrow down:** These techniques are used to refine and prioritize ideas. The goal could be to narrow down the list to the most actionable ideas but also gain consensus or approval on some ideas.

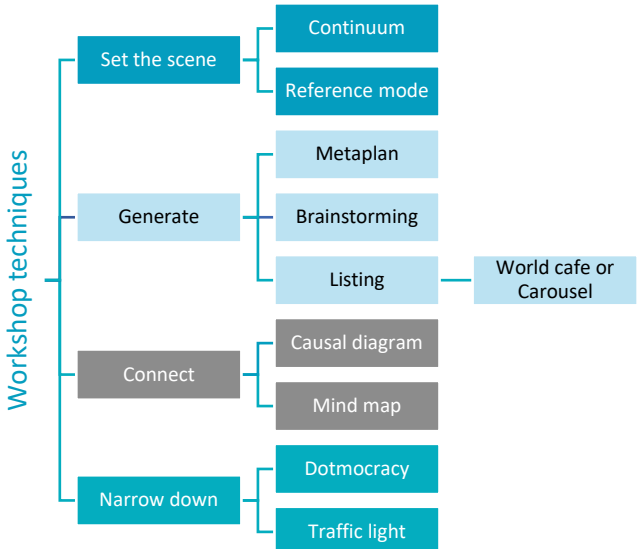


Figure 11: Shows a scheme of workshop techniques included in this deliverable

Note 1: The following one-pager scripts have been adapted from existing facilitation resources and tailored based on the authors' experience for use in participatory workshops focused on Nature-based Solutions in the marine sector. They are intended as flexible templates that can be further customized to suit specific workshop goals and contexts. The examples provided are made up, but tailored to Nature-based Solutions in the marine sector. When choosing a workshop technique, remember to choose the technique that is most relevant given your aims rather than, for example, the technique you are most familiar with.

Note 2: These workshop scripts are designed primarily for in-person facilitation, where participants can engage in face-to-face dialogue, interact with physical materials (e.g., flipcharts, sticky notes), and move between stations. However, with some adjustments, the workshop can also be conducted online using digital collaboration tools such as virtual whiteboards (e.g., Miro, MURAL), breakout rooms, and shared documents. When adapting for an online format, consider allocating extra time for transitions, scheduling enough breaks to keep participants' attention and ensuring clear instructions are provided in advance.

5.4.1 SET THE SCENE

CONTINUUM
When to use Continuum? The technique helps to 'take the temperature of the room'. For example, it can be used to identify how familiar participants are with a specific concept, areas of agreement and disagreement, etc. It generally is used as a starting point for further conversation. While helpful, it should be used cautiously because it can highlight divisions between participants rather than identify common ground. It is also important to be aware of social norming.
Script 1. Create a spectrum that goes from one extreme (e.g., strongly disagree) to another extreme (e.g., strongly agree). It is important to label the spectrum clearly. This can be done on a piece of paper on a wall, but you can also use the floor of a room, etc. 2. Prepare questions or statements related to the theme of the workshop. 3. Read the statement or questions out loud and ask the participants to place themselves along the spectrum based on their viewpoint. 4. Ask a few of the participants to explain their viewpoint. 5. Facilitate a short discussion about participants' different stances.
Example of using the Continuum technique You are facilitating a stakeholder workshop with various stakeholder groups. You present the statement: *"How familiar are you with planning process for offshore wind energy."* You then ask participants to physically position themselves along a line marked from "Not familiar" to "Very familiar". This will help you, as the facilitator, see how knowledgeable people are about the planning process.    *Figure 12: Shows an example of the result of the continuum technique.*
References ThinkCBT: Exercise 14 Continuum

REFERENCE MODE

When to use Reference Mode? This technique helps to define how things have changed or may change over time. It is a great tool for setting the stage before diving into knowledge sharing and idea generation. This exercise may unintentionally reflect or reinforce existing group power dynamics. To help mitigate this, it's important to ensure that all participants have the opportunity to speak. If the group is struggling to reach consensus, you can either extend the session to allow for deeper discussion or conclude by summarizing the key ideas that have emerged.

Script

1. The facilitator introduces the concept of a 'reference mode'. A 'reference mode' is a simple graph that shows how something important has changed or can change over time.
2. The facilitator presents a possible reference mode.
3. The facilitator then checks with the group to see if this reflects their understanding, or if the focus should shift to something else.
4. As participants refine their understanding of what the reference mode should represent, the facilitator updates the graph accordingly.
5. The facilitator wraps up the activity once the group has reached a shared agreement.

Example of using Reference Mode technique

The graph shows a potential reference mode: an increase in the number of fish farms projected to be installed off the coast of Spain. Note: These numbers are made up.

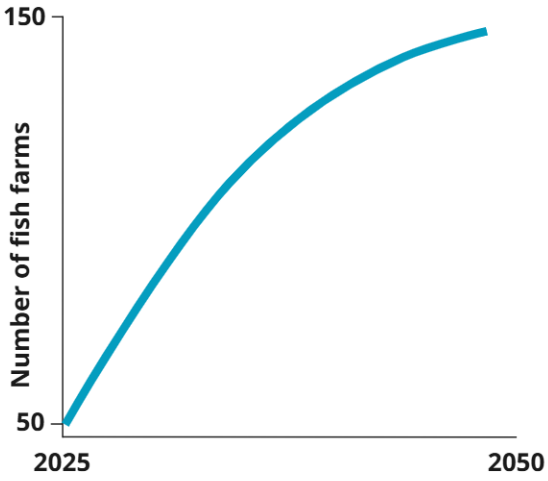


Figure 13: Shows an example of a reference mode graph.

References

Scriptapedia: Graphs over time.
Vensim: Reference Modes

5.4.2 GENERATE IDEAS

METAPLAN		
Participants	**Facilitators**	**Duration**
5-15 participants	1	Between 45min - 1hour

When to use Metaplan? This method can be used to gather input from all participants and identify common themes.

Script:

1. The facilitator introduces themselves as well as the topic and the workshop plan, ensuring that all participants share the same understanding of the plan moving forward.
2. The facilitator provides participants with pens and sticky notes (**note**: there are two ways of doing this, limited or unlimited number of sticky notes per person)
3. The facilitator establishes rules for filling out the sticky note(s), such as allowing only one point per sticky note and writing clearly.
4. The facilitator collects sticky notes from participants one-by-one and places them on a wall, whiteboard, or similar. The facilitator places similar sticky notes next to each other.
5. The facilitator presents the groupings of sticky notes that have emerged throughout the exercise to participants and asks if anything should be moved.
6. The facilitator asks participants what each grouping should be named and then labels the groupings.

Note: This technique can be applied in a single workshop or across a series of workshops. An example could be that participants vote to prioritize from the list of suggestions collected in the first workshop (See , 3b). From there, participants can create action plans for the cards with the most votes and assign responsibilities. To sum up, the facilitator should highlight the key points and decisions.

Example of Metaplan (See Case example 1: Develop ways to co-exist with different sea users Case example)

Dos	Don'ts
✓ Recap of what is written on the sticky notes ✓ Ensure everyone's sticky note is read and placed on the wall, whiteboard, or similar	× Have different granularity in the labels (e.g., one label is 'biodiversity' and the other is 'types of fish') if you are going to vote/prioritize the categories later on

References

Supera: METAPLAN (for small teams)
Hosting Transformation: Metaplan

BRAINSTORMING		
Participants	**Facilitators**	**Recommended duration**
5-15 participants/group	1 facilitator/group	Between 15-45 minutes

When to use brainstorming? Brainstorming is a very versatile technique that can be used for a wide array of tasks. You should use brainstorming if you need to generate ideas, ways to solve problems or other creative tasks. Note: Brainstorming should be active – participants should come up with *new* ideas rather than list knowledge.

Script:

1. The facilitator makes sure all participants have an idea of the topic of the session.
2. The facilitator establishes rules and guidelines that promote free thinking, no judgment, quantity over quality, and connections between ideas.
3. The facilitator chooses a specific brainstorming technique. NOTE: There are several brainstorming techniques, for example:
    - Free writing: Participants individually write down ideas before sharing them with the group.
    - Round Robin: Each participant takes turn sharing one idea.
    - Stand up: Everyone stands up and the facilitator poses a question and asks for ideas in response.

Note: If participants have written ideas down, the facilitator collects these ideas. If participants have NOT written ideas down, the facilitator records them (e.g., by writing on a whiteboard). In the case of Stand-up, there should be a co-facilitator taking notes.

4. The facilitator summarizes and leads a discussion about the results.

Example of brainstorming

Imagine that you are a researcher working on a proposal where one of the topics is monitoring restoration efforts. To activate your partner's knowledge and creative thinking you do a brainstorming session on novel methods to monitor artificial reefs.

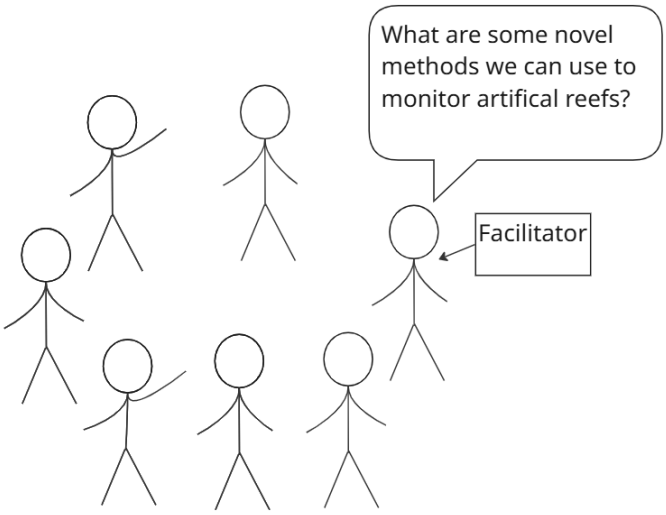


Figure 14: Shows an example of a brainstorming session.

Dos	Don'ts
✓ Be inclusive and foster an environment that promotes idea generation ✓ Promote fast thinking	× Let certain people dominate the discussion × Ignore the anchoring effect; participants might get too focused on the first ideas being presented

References:

WeWork: 10 Effective brainstorming techniques for teams
Creately: How to run successful brainstorming workshops

LISTING		
Participants	**Facilitators**	**Recommended duration**
5-15 participants/group	1 facilitator/ group	1 hour

When to use Listing? You should use Listing to collect knowledge about different topics. This can be done in multiple ways.

Script:

1. The facilitator presents a question, which is written down and visible to participants.
2. The facilitator leads a discussion around this question, ensuring all voices are heard.
3. As participants discuss, the facilitator (or a co-facilitator) writes down as verbatim as possible what each participant says so that everyone can see what is written.
4. If participants make similar points, the facilitator asks if they are linked and if so, visually depicts linkages (e.g., by drawing a line or numbering the points).

Example of Listing

Imagine that you are the facilitator and need to get an overview of which knowledge exists regarding the impacts of offshore wind energy among participants. Then you could do a listing, and it could look something like this:

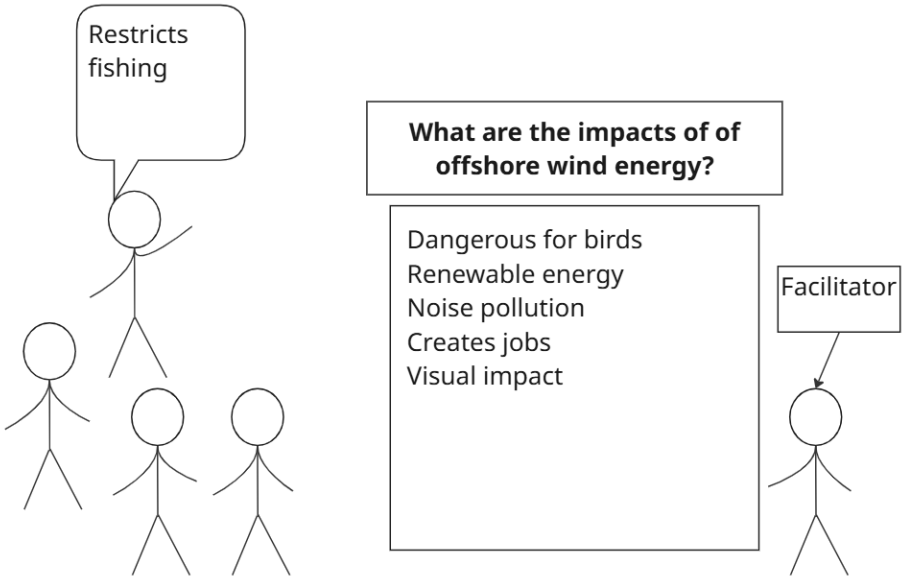


Figure 15: Shows an example of a listing in progress.

Dos	Don'ts
✓ Have the question visible	× Attribute points to different participants
✓ Record all participants' points	× Highlight some points as more important
✓ Ensure participants see what is written	
✓ Ensure all voices are heard	

References:

David Sibbet: A Graphic Facilitation Retrospective

The Facilitation Hub: Graphic Facilitation Ultimate Guide

<table>
<tr><th colspan="3">WORLD CAFÉ OR CAROUSEL</th></tr>
<tr><th>Participants</th><th>Facilitators</th><th>Recommended duration</th></tr>
<tr><td>5-15 participants/group
Max 75 people/5 groups</td><td>Variable (read Note 1)</td><td>Between 1- 2 hours
(read note 2)</td></tr>
<tr><td colspan="3">When to use Carousel? The carousel method is primarily a way to manage a large group of participants. It is a time efficient way to get participants to list or brainstorm knowledge (see Listing and Brainstorming techniques).</td></tr>
<tr><td colspan="3">Script:
1. The facilitator divides participants into 3 to 5 small groups (see Tips for facilitation) and provides each group with their own felt tip pen or sticky notes in a specific color.
2. The facilitator explains that each group will work to answer a question at a different station (e.g., a table, room, etc.). Note 1: There should be as many questions as groups and there should be no more than five groups/questions. The question should be physically placed at the different stations. Ideally, there should be one facilitator per station.
3. The facilitator at each station asks the group to answer the question or, if there is not a specific facilitator at each station, the participants answer the question themselves. In either case, all points should be clearly recorded in the specific color of their group.
4. After time is up, the facilitator asks the groups to take their pen and move clockwise to the next station. Note 2: The time should decrease as the activity proceeds because in the second-round participants will add onto what the groups in the first round wrote. Thus, the need for different colored pens.
5. The facilitator at each station presents the question, summarizes what the previous group discussed, and asks the new group to answer the question. If there is not one facilitator per station, the facilitator should instruct the groups to read the question and what the previous group wrote before writing their own answers.
6. Repeat the process until each group has visited every station and returned to their original station.
7. When the groups are back at their starting point, they should read what the other groups contributed.
8. In plenary, the facilitator at each station summarizes what has been written on their sheet or, if there was not one facilitator per station, the group that started and ended with the same station summarizes what was written.</td></tr>
<tr><td colspan="3">Example of Carousel (See Case example 2: Identify synergies and collaboration opportunities between organizations)</td></tr>
<tr><th colspan="2">Dos</th><th>Don’ts</th></tr>
<tr><td colspan="2">✓ Ensure that groups use their assigned pen/sticky notes
✓ Keep track of the time
✓ Ensure an appropriate distance between each station, both to avoid crowding and to make sure that the transition between the stations is not too far.</td><td>× Have too many stations. Remember that the participants have to move between stations and read what has been written by earlier groups. This takes time.
× Ignore the previous contributions.
× Skip the final presentation of each question.</td></tr>
<tr><td colspan="3">References
Hosting Transformation: Carousel
Eureka: Carousel Walk</td></tr>
</table>

5.4.3 CONNECT

CAUSAL DIAGRAM		
Participants	**Facilitators**	**Recommended duration**
5-15 participants	1-2	1 hour

When to use Causal Diagram? This technique can be used to show how different factors relate to each other, specifically the causal links between different things.

Script:

1. The facilitator should start by (re)introducing the problem variable. The problem variable is the factor that the group wants to investigate -- this is usually identified in a previous workshop technique such as reference mode. **Note**: The facilitator can also present and display a list of previously recorded factors that might influence the problem variable (i.e., a key question you are trying to answer). These factors can be a result of other workshop techniques such as a Metaplan exercise. The facilitator should write the problem variable in the center of the writing area.
2. The facilitator asks participants which things or factors might have an impact on the problem variable. The facilitator adds these to the model. The aim is to develop logical relationships through connections between the problem variable and different factors. Finally, the facilitator asks the group to check if the relationships are positive or negative.

Note: There should be a group consensus regarding which factors should be added and what relationship they have to the problem variable. If somebody disagrees, the facilitator asks for clarification. If the discussion goes on for too long, the facilitator parks the issue and returns to it later (Step 4a).

3. After the group has spent some time building the model, the facilitator discusses the potential consequences of changes in the problem variable and what effects these can have on the other factors in the model.
4. Review all the proposed causal loops and summarize the outcomes and proposed next steps for the model.
    a. If there are any issues that were parked in the model building step, the facilitator should review them.
    b. The facilitator should create some concise conclusions.

Example of Causal diagram

This example uses an increase in the number of fish farms as the problem variable and animal welfare, production and profit as the factors that, according to participants, might influence fish farms.

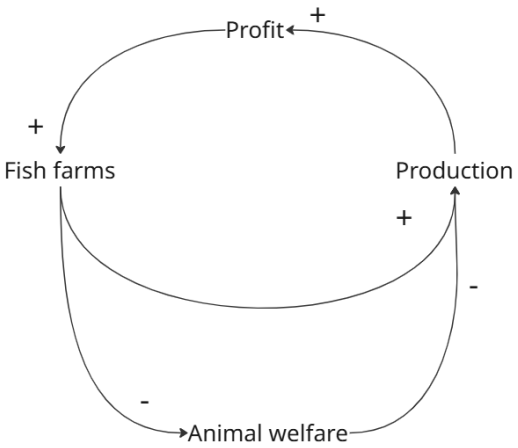


Figure 16: Shows an example of a causal diagram.

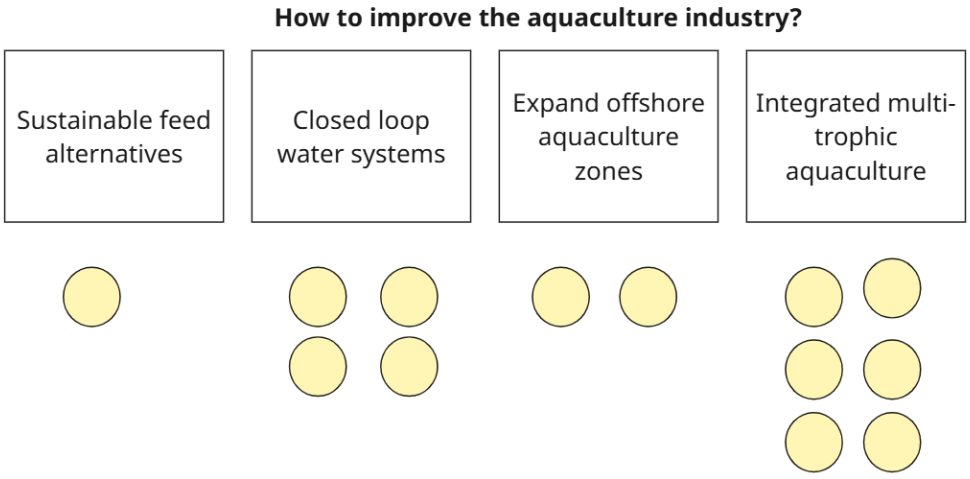
Dos	Don'ts
✓ Clearly define the different parts of the system. ✓ Focus on the system as a whole. ✓ Look for connections. ✓ Use clear and readable labels and markers.	× Overcomplicate the diagram. ○ Focus on the most important parts and relationships × Lose focus of the whole. × Leave out key parts of the system. × Use factors that cannot be increased or decreased.

References

Scriptapedia: Initiating and Elaborating a Causal Loop Diagram
Rachel Tiller, et al. 2016: Stakeholder Perceptions of Links between Environmental Changes to their Socio-Ecological System and their Adaptive Capacity in the Region of Troms, Norway.

<table>
<tr><th colspan="3">MIND MAP</th></tr>
<tr><th>Participants</th><th>Facilitators</th><th>Recommended duration</th></tr>
<tr><td>5-15 participants</td><td>1</td><td>1 hour</td></tr>
<tr><td colspan="3">When to use Mind Map? This technique can be used when you need to illustrate or understand how different concepts are connected.</td></tr>
<tr><td colspan="3">Script
1. To prepare, the facilitator needs a large writing surface to collect ideas and draw lines between them.
2. The mind map needs to have the core question or topic written in a manner that all participants or group members can see.
3. Based on participants' input, the facilitator adds main branches that represent major categories or ideas related to the core question or topic.
4. Based on participants' input, the facilitator expands the branches with more sub-branches that increase in specificity.
5. The facilitator presents the map(s) and discusses the findings.</td></tr>
<tr><td colspan="3">Example of Mind Map (See Case example 3: Establish monitoring map)</td></tr>
<tr><th colspan="2">Dos</th><th>Don'ts</th></tr>
<tr><td colspan="2">✓ Write clearly
✓ Encourage free thinking
✓ Have enough space to write
✓ Use colors and symbols to structure the map</td><td>× Use full sentences
× Overcrowd the map</td></tr>
<tr><td colspan="3">References
BiodivErsA: Stakeholder Engagement Handbook</td></tr>
</table>

5.4.4 NARROW DOWN

DOTMOCRACY
When to use Dotmocracy? This technique should be used when you need to prioritize or shortlist ideas. Dotmocracy is a collaborative decision-making method where participants use dots to express their level of agreement or disagreement with various ideas. This visual method helps identify the most popular ideas and fosters transparency and inclusivity.
Script 1. The facilitator must decide how many dots each person is given. One way to do this is to give people one dot for every 3-5 ideas to be voted on. 2. The facilitator presents the different ideas to the group so that there is a common understanding of what the different ideas are. The facilitator can write the different ideas on sheets of butcher paper so all can see them, which makes voting simpler. 3. The facilitator instructs the participants on how the voting is done. See different variants below: a. If there is no clear purpose, participants can place their dots how they choose. b. If the purpose is prioritizing, participants can only place one dot per idea. c. If the purpose is weighing, participants can place all their dots on one idea. NOTE: Participants will likely be influenced by where other participants place their dots. To do a blind vote, the facilitator should number all points and instruct participants to privately write down which point(s) they vote for on a sticky note. After all participants have written their vote on a sticky note, the facilitator collects the sticky notes and places a dot/dots on the number written in the sticky note. 4. The facilitator presents the ideas with the highest number of dots.
Example of finished Dotmocracy voting    *Figure 17: Shows an example of the dotmocracy voting method.*
References Dotmocracy: What is Dotmocracy Imfusio: Dotmocracy Miro: Dot Voting Template

TRAFFIC LIGHT

When to use Traffic light? The Traffic Light method should be used when you need to (quicky) understand different levels of acceptance for an idea or a question in a group.

Script

1. Before the start of the workshop the facilitator should create some way of indicating agreement, uncertainty or disagreement. This can be done by creating red, yellow and green cards.
2. The facilitator hands out one green, one yellow, and one red card to each participant. The facilitator then explains the meaning of each colored card.
3. The facilitator presents a statement for voting.
4. The facilitator gives participants a certain amount of time to think (usually 30 seconds to 1 minute).
5. The facilitator asks the participants to vote at the same time and records the vote.
6. The process repeats from step 3 until all the topics are exhausted.

Example of Traffic light decision making

Let's say you are a municipality representative and want to see what the acceptance is for building a breakwater near a beach many people use for recreational purposes. You have decided to use the traffic light to see what the acceptance in the workshop group is for the proposed construction.

Should the municipality build a breakwater next to the beach?

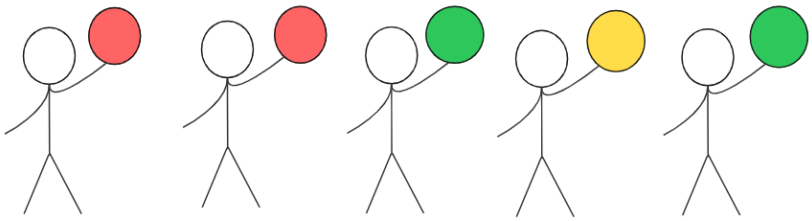


Figure 18: Shows an example of the traffic light technique.

References

CIKIT: From Red To Green: Traffic Light Assessment

Participate: Traffic Light

6 CASE EXAMPLE 1: DEVELOP WAYS TO CO-EXIST WITH DIFFERENT SEA USERS

This section will illustrate how the above-mentioned workshop techniques could be combined and used for different engagement goals.

Context and preparation of the workshops

Offshore wind has emerged as a critical component of the clean energy transition. However, the expansion of offshore wind infrastructure intersects with a wide range of ocean users and ecosystems (e.g. fisheries and aquaculture, coastal communities and cultural heritage, tourism and recreation, defence, shipping, etc).

A series of workshops will be designed to build mutual understanding and develop actionable pathways to improve the co-existence in offshore wind development in a certain area.

Specific workshops goals

Workshop 1

- Identify participants' expectations and concerns about co-existence.
- Identify key points that could serve as a basis to create an action plan.'

Method: Metaplan- Hopes & Fears and Dotmocracy

Workshop 2

- Define goals and challenges for implementation
- Design an action plan

Method: Metaplan

Figure 19: Shows the different workshop goals and methods

Workshop 1

Generate ideas: Metaplan – Hopes & fears

1. Facilitators introduce themselves and Hopes and Fears (H&F) dynamic
2. Provide participants with pens and sticky notes in two colors; green for *Hopes* and pink for *Fears*. The facilitator explains that they will be writing their H&F for "What are your Hopes and Fears for co-existence in X area?" and then sharing them with the group.
3. Participants are given a few minutes to individually write as many H&F as possible.
4. Participants sort sticky notes into two piles and ranked from most to least important.
5. The different sticky notes will then be read, and a facilitator will post them on a wall while grouping them based on themes.
6. After each participant has had a chance to share once, the floor will be open, and it will continue until all the H&F have been shared.

Reference: Scriptapedia: Hopes and Fears

The wall could look like something like this:

Figure 20: Shows an example of a hopes & fears metaplan

Narrow down ideas: Dotmocracy

Then ask the participants to vote by adding dots to the sticky notes that they would like to prioritize.

Workshop 2

Generate ideas: Metaplan

The second workshop will be focused on creating action plans for the cards with the most votes and assign responsibilities

Action approach:

- Hopes can be translated into goals and fears into challenges that need to be addressed
- Define concrete actions for goals and challenges, and designate responsibility
- Explore innovative solutions across sectors

Outcomes

Identify positive and negative perceptions of co-existence among participants, this could be very useful to:

- Contrast point of views from different sectors
- Understand and surface potential barriers, resistance or sensitive topics
- Promote inclusive decision-making and long-term sustainability

7 CASE EXAMPLE 2: IDENTIFY SYNERGIES AND COLLABORATION OPPORTUNITIES BETWEEN ORGANIZATIONS

Context of the workshop

Low trophic aquaculture offers a sustainable and climate-resilient approach to food production. However, many organizations operate in silos facing shared challenges in infrastructure, market access, regulation, and innovation.

Specific workshop goals

- Identify as many ideas as possible for increasing synergies and collaboration between Low trophic aquaculture.
- Identify shared goals and complementary strengths.
- Hear all voices from the different groups of stakeholders.

Workshop

Listing- World Café or Carousel

This World Café workshop brings together stakeholders from across the value chain. Participants will be divided into 4 groups: G1- producers, G2- researchers, G3- policymakers, G4- NGOs. Each group with their own sticky notes in a specific color (yellow, blue,…) and will work to answer a question in each station related to the following topics:

Topic 1: Shared infrastructure and resource optimization
Topic 2: Research, innovation, and knowledge exchange
Topic 3: Regulatory alignment
Topic 4: Market development

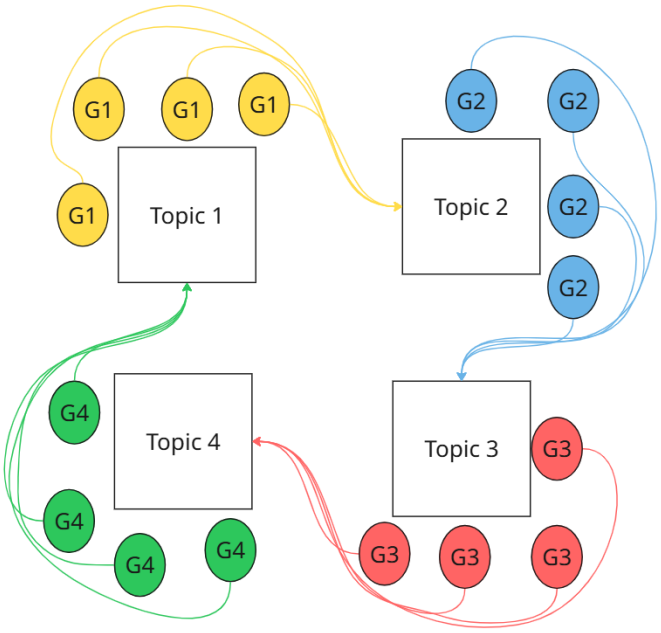


Figure 21: Shows an example of how to structure listing based on the carousel method.

<u>Outcomes:</u>

- Collection of ideas and perspectives from different stakeholder groups, diverse viewpoints captured in one place
- Cross-pollination of perspectives and layered thinking (ideas evolve as groups move and more people contribute to the same topic)
- Visual formats: clustered ideas by topic and groups (colour coded)

8 CASE EXAMPLE 3: ESTABLISH MONITORING MAP

Context of the workshops

You are working on developing a new type of break water that will also act as a reef, and you want to monitor the effect of the breakwater on the local environment.

Specific workshops goals

- Map out ongoing monitoring activities
- Identify connections and gaps between monitoring plans and tools

Workshop

Mind map

To structure and consolidate the knowledge related to the proposed environmental monitoring efforts, a mind map is created to visualize the various information sources, tools, and methodologies involved in the monitoring process.

- **Central Node (green)**: The main topic or goal (e.g., "Monitoring").
- **Branches (blue)**: Major categories or themes (e.g., "Information sources").
- **Sub-branches (yellow)**: Specific actions, tools or insights under each theme.

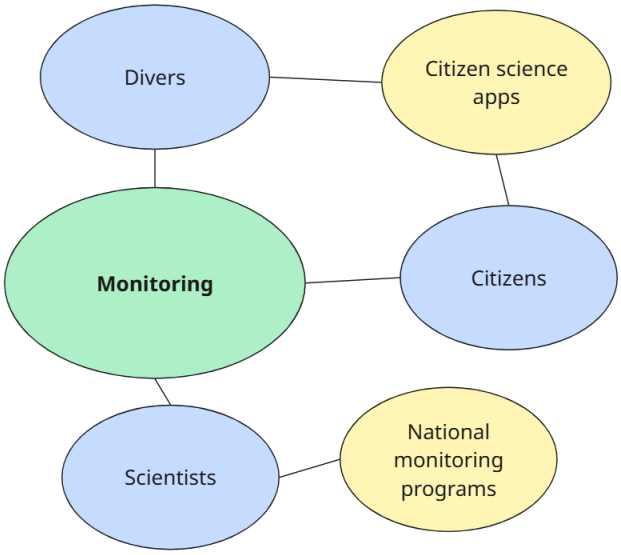


Figure 22: Shows an example of a mind map.

Outcomes:

- Monitoring system organized visually
- Collaborative reference point: show cconnections between different monitoring activities leading to identify synergies and knowledge gaps
- To facilitate group discussions and integrated approach among stakeholders

9 REFERENCE

Barkley, E. F., & Major, C. H. (2023, June 29). Making Group Work Work: Strategies for Forming Effective Groups. *The K. Patricia Cross Academy*. https://kpcrossacademy.ua.edu/making-group-work-work-strategies-for-forming-effective-groups/

Burt, A., Stalla-Bourdillon, S., & Rossi, A. (2021, July 15). *A guide to the EU's unclear anonymization standards | IAPP*. https://iapp.org/news/a/a-guide-to-the-eus-unclear-anonymization-standards/

Data Protection Working Party. (2010, February 10). *Article 29 Data Protection Working Party. (2010)*. https://ec.europa.eu/justice/article-29/documentation/opinion-recommendation/files/2010/wp169_en.pdf

Data Protection Working Party. (2014, April 1). *Article 29 Data Protection Working Party. (2014)*. https://ec.europa.eu/justice/article-29/documentation/opinion-recommendation/files/2014/wp216_en.pdf

Del Grande, C., & Kaczorowski, J. (2023). Rating versus ranking in a Delphi survey: A randomized controlled trial. *Trials*, *24*(1), 543. https://doi.org/10.1186/s13063-023-07442-6

Durham, E., Baker, H., Smith, M., Moore, E., & Morgan, E. (2014). *BiodivErsA, STAKEHOLDER ENGAGEMENT Handbook* [Book]. https://www.biodiversa.eu/wp-content/uploads/2022/12/stakeholder-engagement-handbook.pdf

Eich, D. (2023, November 14). *The Design of a Workshop: A Guide to Designing Workshops that Engage* -. Innovation Training | Design Thinking Workshops. https://www.innovationtraining.org/the-design-of-a-workshop-a-guide-to-designing-workshops-that-engage/

European Commission. (n.d.-a). *Data protection explained—European Commission*. Retrieved 26 May 2025, from https://commission.europa.eu/law/law-topic/data-protection/data-protection-explained_en

European Commission. (n.d.-b). *What is a data controller or a data processor? - European Commission*. Retrieved 26 May 2025, from https://commission.europa.eu/law/law-topic/data-protection/rules-business-and-organisations/obligations/controllerprocessor/what-data-controller-or-data-processor_en

European Commission. (2022). *Data management plan template for Horizon Europe.* European Commission. https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/temp-form/report/data-management-plan_he_en.docx

European Commission. (2025, May 15). *Programme-guide_horizon_en.pdf*. European Commission. https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/guidance/programme-guide_horizon_en.pdf

European Data Protection Board. (2020, May 4). *Edpb_guidelines_202005_consent_en.pdf*. https://www.edpb.europa.eu/sites/default/files/files/file1/edpb_guidelines_202005_consent_en.pdf

European Parliament, & Council of the European Union. (2016, April 27). *Regulation—2016/679—EN - gdpr—EUR-Lex*. https://eur-lex.europa.eu/eli/reg/2016/679/oj/eng

GDPR Handbook. (n.d.). *Consequences of GDPR non-compliance*. GDPRHANDBOOK. Retrieved 26 May 2025, from https://www.gdprhandbook.eu/consequenses-gdpr

Gibbs, G. R. (2018). *Analyzing Qualitative Data*. SAGE Publications Ltd. https://doi.org/10.4135/9781526441867

Knott, E., Rao, A. H., Summers, K., & Teeger, C. (2022). Interviews in the social sciences. *Nature Reviews Methods Primers*, *2*(1), 1–15. https://doi.org/10.1038/s43586-022-00150-6

Misa. (2024, June 30). How to Conduct Pilot Testing in Research Effectively? Here is Your 7 Complete Guide! *Researchmate.Net*. https://researchmate.net/pilot-testing-in-research/

NTNU. (n.d.). *Data management plan—Kunnskapsbasen—NTNU*. Retrieved 26 May 2025, from https://i.ntnu.no/wiki/-/wiki/English/Data+management+plan

Perez, N. (2024). n-Sizes, Attributes, and A Priori Sampling: A Qualitative Sampling Model for Large, Heterogeneous Populations. *American Journal of Qualitative Research*, *8*(3), 193–207. https://doi.org/10.29333/ajqr/14895

Rabiee, F. (2004). Focus-group interview and data analysis. *Proceedings of the Nutrition Society*, *63*(4), 655–660. https://doi.org/10.1079/PNS2004399

Reed, M. S., Jensen, E. A., Noles, S., Conneely, D., Kendall, H., Raley, M., Tarrant, A., Oakley, N., Hinson, C., Hoare, V., Marshall, K., & Pugliese, L. (2025). Analyzing who is relevant to engage in environmental decision-making processes by interests, influence and impact: The 3i framework. *Journal of Environmental Management*, *373*, 123437. https://doi.org/10.1016/j.jenvman.2024.123437

Sammut, R., Griscti, O., & Norman, I. J. (2021). Strategies to improve response rates to web surveys: A literature review. *International Journal of Nursing Studies*, *123*, 104058. https://doi.org/10.1016/j.ijnurstu.2021.104058

Shah, P., Thornton, I., Kopitnik, N. L., & Hipskind, J. E. (2025). Informed Consent. In *StatPearls*. StatPearls Publishing. http://www.ncbi.nlm.nih.gov/books/NBK430827/

Sikt. (n.d.-a). *Information for participants in research projects | Sikt*. Retrieved 26 May 2025, from https://sikt.no/en/fylle-ut-meldeskjema-personopplysninger/information-participants-research-projects

Sikt. (n.d.-b). *Legal bases for personal data processing in research | Sikt*. Retrieved 26 May 2025, from https://sikt.no/en/tjenester/personverntjenester-forskning/personvernhandbok-forskning/legal-bases-personal-data-processing-research

Sikt. (n.d.-c). *Personvern i spørreundersøkelser | Sikt*. Retrieved 26 May 2025, from https://sikt.no/tjenester/personverntjenester-forskning/personvernhandbok-forskning/personvern-i-sporreundersokelser#

Smart, J. (2024, December 19). What is a workshop and why should you run one? *SessionLab*. https://www.sessionlab.com/blog/what-is-a-workshop/

Tanujaya, B., Charitas Indra Prahmana, R., & Mumu, J. (2022). Likert Scale in Social Sciences Research: Problems and Difficulties. *FWU Journal of Social Sciences*, 89–101. https://doi.org/10.51709/19951272/winter2022/7

UK Data Service. (n.d.-a). *Anonymising quantitative data*. UK Data Service. Retrieved 26 May 2025, from https://ukdataservice.ac.uk/learning-hub/research-data-management/anonymisation/anonymising-quantitative-data/

UK Data Service. (n.d.-b). *Research data management*. UK Data Service. Retrieved 26 May 2025, from https://ukdataservice.ac.uk/learning-hub/research-data-management/

Weitzenboeck, E. M., Lison, P., Cyndecka, M., & Langford, M. (2022). The GDPR and unstructured data: Is anonymization possible? *International Data Privacy Law*, *12*(3), 184–206. https://doi.org/10.1093/idpl/ipac008

Westland, J. C. (2022). Information loss and bias in likert survey responses. *PLOS ONE*, *17*(7), e0271949. https://doi.org/10.1371/journal.pone.0271949

Wirtz, D. (2024, June 7). *What Is a Workshop? (+2 Examples) | Facilitator School*. https://www.facilitator.school/blog/what-is-a-workshop

Wolford, B. (2018, November 7). What is GDPR, the EU's new data protection law? *GDPR.Eu*. https://gdpr.eu/what-is-gdpr/

Wu, M.-J., Zhao, K., & Fils-Aime, F. (2022). Response rates of online surveys in published research: A meta-analysis. *Computers in Human Behavior Reports*, *7*, 100206. https://doi.org/10.1016/j.chbr.2022.100206