BLUE BALANCE

Deliverable D2b.1 - Blueprint for stakeholders

Launching participatory processes for coastal sustainability transitions.

VLIZ MARINE @UGENT UNIVERSITEIT GENT west-vlaanderen de gedreven provincie AGENTSCHAP INNOVEREN & ONDERNEMEN BLAUWE CLUSTER samen voor #sterkgroeien

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Extended summary

There's an increasing global need for sustainable development in all levels of society, which is reflected in (inter)national and regional policies. Public participation is here seen as a key accelerator for the needed innovative implementations within these sustainable transitions as it creates broader support, and thus more legitimacy. However, this awareness does conflict with the small amount of research and attention that has gone into the societal impact of these sustainable transitions. To address this lack of consideration, many policy levels are aiming for a more interactive and bottom-up approaches to engage stakeholders within the sustainability transition.

To build and support this interactive approach, this report aims at providing insights into (1) the participatory landscape of the Blue Economy in Flanders, (2) the participatory needs and barriers of the key stakeholders within this context, and (3) to develop guidelines to involve the necessary stakeholders from the design phase of projects in order to create wider acceptance for sustainable innovations. This report identifies and assesses the participatory landscape within the Blue Economy in Flanders, focusing on three crucial components:

- The BLUE BALANCE sustainability framework:

This framework makes a first estimation of the thematic clusters and the sustainability level of the participatory landscape within the Blue Economy in Flanders. The framework indicates that the thematic clusters where most participatory processes took place are climate change adaptation and environmental quality, while there are fewer such processes around tourism and spatial planning. Also, it clearly indicated that blue food and renewable energy are the clusters with higher sustainability scores, while tourism has a rather low sustainability score.

- Participatory experiences and best practices of the Blue Economy in Flanders:

The most frequently mentioned barriers were (1) the lack of participatory knowledge, (2) the high costs associated with a participatory process and (3) the limited timeframe in which such a process should be carried out. The main drivers are (1) applying scenario thinking in order to set up an evidence-based consideration of all decision-making options, (2) establishing a reference and evaluation framework to track the process and the needs of the stakeholders involved, and (3) using bilateral exploration meetings to identify expectations and opportunities of all closely involved stakeholders.

- Stakeholder engagement methodology that meets the participatory needs of the Flemish Blue Economy:

A participatory initiative starts by (1) **setting the participatory scene** to define the objectives of the engagement process and how they contribute to any overarching project. This step also allows you to determine the resources and timeframe. This will be followed by (2) a **participatory landscape assessment**, where the most dominant influences are defined so that they can be considered throughout the engagement process. After these preparatory steps, (3) a **stakeholder identification** should be carried out defining all relevant stakeholders for involvement at a later stage. During a (4) **stakeholder mapping** exercise, stakeholders are categorised according to their expertise and potential influence. Based on these two dimensions, it can be determined how certain groups of stakeholders will be approached as partners within the engagement process. The (5) **engagement planning** will indicate which engagement methods will take place at what time during the project, tailored to the stakeholder group to be

involved. The broad stakeholder assessment (3-5) will be followed by the (6) implementation of planned activities, which will be continuously (7) monitored and evaluated during the execution.

This blueprint for stakeholders enables participatory planners to establish an engagement process in a (semi-) structured way that takes into account the needs and capabilities of all stakeholders. In addition, it provides numerous tools to map the stakeholder landscape and assess in an evidence-based way which stakeholders to involve how.

1. Introduction

1.1. BLUE BALANCE project

The general objective of the BLUE BALANCE (VLAIO/ Blue Cluster) project is increasing public involvement and participation in the sustainable transition of the Flemish coastal area and, in so doing, the development of a societal 'license to operate' for sustainable (economic) activities. The project is aimed at residents of and visitors to the Flemish coastal area, and its objective is to initiate a dialogue between them and local industrial stakeholders and policymakers.

To achieve this goal, the project partners have adopted a multidisciplinary approach which encompasses social psychology, marine and maritime sciences, archaeology as well as media and communication sciences. The project focuses on the following specific targets:

- Conduct research into the personal values of people living in or visiting the Flemish coastal area to gain an in-depth insight into the underlying psychological motives, barriers and processes impacting individuals' support for and involvement in sustainable coastal innovations and processes as well as (their perception of) regional (group) norms and values.
- Link the long-term development of the coastal landscape and towns that boast cultural and natural heritage with sustainable innovations and topical issues. This in-depth map will be used to determine the optimum framing of messages (e.g. history, health, economy) and how this can be integrated into storytelling with a view to the sustainability agenda.
- Assess the stakeholder landscape and identify best practices, on the basis of previous and ongoing projects, to involve stakeholders in participatory processes, and determine for what future sustainability projects and innovations a societal 'licence to operate' is the most crucial.
- Investigate and test what interventions and communication tools can be used by stakeholders to make citizens aware, inform them and involve them.

The cSBO Blue BALANCE project (July 2022 – December 2025) is coordinated by Marine@UGent, and project partners are the Center for Persuasive communication (CEPEC), the Historical Archaeology Research Group (HARG UGent), the Flanders Marine Institute (VLIZ) and Digital Arts and Entertainment (DAE Howest).

1.2. Participation policy

1.2.1. Policy framework in Flanders

The Government of Flanders took a major step forward in 2017 in developing an effective participation policy. The white paper 'Open and Agile Government' was drafted to bring together various administrative innovations and start up an internal and external reform dialogue (Vlaamse Overheid, 2019). Within the white paper, creating added value through participation became one of the five focal pillars. The participation pillar recognises that **adopting an interactive approach will result in policies with broader public support, and thus more legitimacy.** In addition, it

emphasises the complex nature of participation. It should be organised to suit every stakeholder, but without hampering the government's capabilities. Lastly, the Government of Flanders makes short-term and long-term proposals to concretely strengthen the participation policy (Vlaamse Regering, 2017). The white paper was converted into an implementation plan covering 30 different projects of which five apply to participation policy. This white paper developed further into a new government decree that would eventually come into force on 1 January 2019 (Vlaamse Overheid, 2019). Other initiatives on citizen participation took place during the previous Flemish legislature (2014-2019):

- A concept note on citizen involvement was developed by Flemish MP Willem-Frederik Schiltz (2016) (Vlaanderen Intern, n.d.). Here, the duality between the lack of citizen engagement and the increasingly active role citizens want to take in today's society is highlighted. By providing a framework for citizens to play a more active role in the decision-making process, which is essential for creating a 'social license to operate'.
- Following the concept note, a resolution on citizen participation with a clear focus on building supportive policies for citizen engagement was drawn up. To this end, a knowledge platform is developed to act as a catalyst and gateway for the distribution of knowledge and best practices (Schiltz et al., 2018).
- A second resolution aiming to bring local policy level closer to citizens to take the lead in implementing an adequate participation policy. To this end, the Flemish Government aims to support cities and municipalities to set up different forms of citizen participation (Schiltz et al., 2018).

Finally, there were two decrees in the previous Flemish legislature (2014-2019) that had an impact on the participation landscape.

- The first is the Decree on Complex Projects, which came into force on 1 March 2015, deals with projects of great social and spatial-strategic importance with the need for an integrated planning process. It proposes a process approach that places a number of principles, such as the participation principle and transparency, at the centre (see Decree on complex projects of 25 April 2014).
- The second is the Decree on Local Government, which came into force on January 1, 2019. Within this decree, explicit attention is given to participation (Title 6). This section requires each municipality to draw up a set of internal rules that shape the local participation policy (see Decree on local government of 22 December 2017).

The Local Government Decree (2019) has the inherent effect of raising municipal stakeholder platforms, also the Decree on Complex Projects brought about more public participation moments. In addition, the White Paper (2017) ensures that the role assigned to citizens is expanding, raising the intensity in which they are involved. Many of these emerging initiatives within the Government of Flanders only came into force at the beginning of the current legislature (2019-2024). As a result, these processes are still in the early stages today. This logically means that at present it is still difficult to observe major changes in both intensity and occurrences. Based on this short period, it is difficult to identify clear trends already. However, it can be expected that more processes where citizens are actively involved will take place in the coming years, and the level of participation here will increase.

1.2.2. Policy framework in the European Union

The European Commission recently published (1st March 2024) two recommendations that discuss the topic in detail. Both recommendations are building on an earlier recommendation of 2022 ((EU) 2022/2415). Here, the guiding principles for knowledge valorisation were defined with the aim of linking research and innovation across different sectors for the benefit of societal added value. It emphasised citizen participation to accelerate the implementation of new innovative technologies in response to numerous societal problems. Furthermore, the recommendation addresses both the opportunities and challenges of public participation. To deal with these, it is suggested that the necessary guidance and tools be always made available. Finally, despite the challenges of participation, it is argued that partcipation should always be part of the standard process of knowledge valorisation.

The first Commission Recommendation ((EU) 2024/736) that followed on the one mentioned above addresses citizen engagement within knowledge valorisation, proposing a code of practice for this purpose. The document covers two main parts:

- The first part stresses the need for a beneficial environment for sustainable citizen engagement. Several guidelines were put forward to benefit this environment. These consist of a number of implementable tools and practices, such as an engagement strategy, cross-sectoral cooperation and an evaluation framework. In addition, a number of important principles are highlighted that should be considered throughout such a process, such as capacity building, social inclusion, awareness and scalability.
- The second chapter makes suggestions for optimising the management of citizen participation. Here, several best practices are suggested in order to organise a profound and effective citizen engagement process. Mapping expectations, a clear definition of engagement methods, a tailor-made communication strategy are the techniques highlighted. Finally, taking advantage of available technological resources and paying attention to stakeholder fatigue were considered.

The second Commission Recommendation ((EU) 2024/774) discusses industry-academia co-creation for the benefit of knowledge valorisation. Co-creation was defined in the Treaty on the Functioning of the European Union (TFEU) as: *'the joint production and valorisation of knowledge between those involved in industry, research and innovation and possibly other stakeholders, such as public authorities and civil society'* and is seen as a crucial part for strengthening the research and innovation (R&I) landscape of the EU. Profound R&I collaboration drives the development of innovative solutions to the most pressing societal challenges, making engagement between a wide range of stakeholders increasingly important. For this reason, this recommendation focuses on the following two sections:

- The first chapter deals with creating an enabling environment for that close co-creation. To this end, the Commission recognises three compenents. As a first compenent, awareness raising of the benits of co-creation and of the cross- disciplinary collaboration is stressed. Where a culture of mutual learning is established, contributing to several societal needs through innovation. Secondly it stresses the need for lifelong learning through investment in training and transversal skills in the R&I-sector. The last component discusses the importance of networking and communication. Here, the befits of joint clusters, platforms,

communities of practice, … are pointed out in order to facilitate co-creation and in order to promote lonjg-term engagement.

- The second section provides recommendations on how to adequately manage these industry-academia co-creations in order to ensure knowledge valorisation. According to the document, there are four compenents to this. As a first compenent, the conditions for succesful partnerships are described, which comes down to the development of a joint partnership framework. Here, several charachteristics for the structural organisation of a co-creation are highlighted, such as the development of a shared vision, a contractual framework, monitoring indicators, a roadmap, etc. Secondly, it's recommended to include an intermediarie to ensure effective knowledge and technology brokerage, and to facilitate mediation and communication. Next, it's encouraged to strenghten the valorisation outcomes of the valorisation process through promotion of the results and engaging in joint infrastructures. Lastly, the importance of an assessment of the outcomes, generated added value and impact of the co-creation process is highlighted. Through this assessment, it's possible to evaluate the process en ensure a fair and equitable sharing of the added value of the process.

1.3. The 'stakeholder participation – sustainability transitions' nexus

1.3.1. Benefits of stakeholder participation

Public or stakeholder participation implies the involvement of stakeholders within policymaking, projects or plans in either a direct or indirect (through representatives) way (Quick & Bryson, 2016). There are numerous benefits of engaging in public participation. The first group of benefits highlights the democratic benefits of participation. Giving the broad public landscape the opportunity to influence the decisions of executive bodies or organisations, results in enhanced citizenship and increased democratic capacity. Also, citizens who participate actively within society become more sociable. This results in stronger social cohesion and integration which enhances community building (Burton, 2009; Glucker et al., 2013).

A second group of benefits refers to educational improvements. Participation of stakeholders results in a more active engagement. Active and participative stakeholders are required to consider their preferences and priorities in order to be able to contribute to the public debate, which makes the involved stakeholders more self-aware (Burton, 2009).

Lastly there's the group of instrumental benefits, where it is claimed that participation improves the quality of decisions made in terms of both managerial efficiency and political legitimacy. By involving a broader range of stakeholders, a wider variety of views on certain problems and the possible solutions is captured. Involving local stakeholders ensures that the most socially and sustainably relevant information is passed on to the project's decision-makers. This improves the quality and legitimacy of what is decided as it is based on the norms and values of the local context. However, an important aspect for increasing legitimacy is to ensure procedural transparency. Members of the participation process must be able to observe to what extent their input influenced the final decisions. The acceptance and legitimacy of a project thus depends on the accountability and transparency of the decision-makers (Burton, 2009; Glucker et al., 2013).

1.3.2. The concept of sustainability transitions

Sustainability as a concept has become predominant over the last decades to actors across industry, governance and society as a whole. Yet, there's no consensus about the definition of the concept. There are many variations, depending on the social and material context (Garud & Gehman, 2012). The most general definition for sustainable development was developed by the UN World Commission on Economic Development (WCED): *'meeting the needs of the present generation without compromising the ability of future generations to meet their needs.'* (WCED, 1987).

Sustainability transitions can be described as long-term, multi-dimensional, and fundamental transformation processes because of which established socio-technical systems shift to more sustainable modes of production and consumption (Markard et al., 2012). A core characteristic of these transitions is that they cause fundamental social change as a response to societal challenges (Avelino et al., 2016). These transitions take place in socio-technical systems and imply changes within different societal dimensions (e.g. political, economic, institutional, …) (Markard et al., 2012). Another particularity of sustainability transitions is that guidance and governance often play a particular role (Smith et al., 2005).

Sustainability transitions require collaboration across all layers of society if innovative approaches of thinking and organizing are to be established, in order to move towards a sustainable society (Gonzalez-Porras et al., 2021). This shows the clear need for engagement with stakeholders at all levels of society, making the sustainability transition undeniably linked to public participation.

1.3.3. The nexus: stakeholder participation as accelerator for sustainability transitions

Wicked problems, global challenges (e.g. climate change or pollution), or sustainability transitions are, due to their unstructured characteristics and great uncertainties, too difficult to solve in a traditional way alone (bureaucratic top-down approach and technological innovations). Since they are typically complex, multi-scale and affect multiple actors, they call for a more proactive approach where institutional and sociocultural transformations are mutually enforced (Van de Kerkhof & Wieczorek, 2005; Reed, 2008). The World Bank emphasized in 1996 that those who are affected by a development project should be actively involved in the design and implementation to ensure the responsiveness of the project towards the local context (Mathur et al., 2008).

As it is broadly recognized that stakeholder engagement is a convenient tool for addressing communal challenging issues (Gonzalez-Porras et al., 2021), it is expected that it can prove to be a vital asset in sustainability transitions. Literature indicates that there's a clear and demonstrable link between public participation and sustainability transitions. Given that a sustainability transition is a fundamental and complex societal process, as many layers of society as possible should be involved to potentially increase the success of this process. This implies that these transitions will involve cross-sectoral and multi-level engagement between all kinds of stakeholders, which creates a need for highly transparent and flexible decision-making (Reed, 2008). Which is why participation and stakeholder engagement can be seen as core elements of coastal management, governance and sustainability transition (Langlet & Rayfuse, 2018).

Besides **transparency** and **flexibility**, there are several arguments within the literature demonstrating the added value of public participation within societal challenges:

- **Democratic accountability:** The actors that are in power or hold the right of initiative are held responsible for their actions and decisions (Schmitter, 2007). Decision-makers are held more responsible through the enhancement of public participation (Wang & Wan Mart, 2007).
- **Legitimacy:** This concept addresses the justification of a plan or policy decision and the democratic nature of the political-administrative system (Zakhour, 2020). Enhanced public participation ha the potential to improve the legitimacy of government as industry decisions (Barnes et al., 2003).
- **Inclusion:** The concept of 'inclusion' refers to the connection between people across issues and over time. Applied to stakeholder engagement does his translate as the presence of all stakeholders in organisational activities in order to include their perspectives and knowledge in the decision-making process (Kujala et al., 2022).
- **Capacity building and social learning:** This process is defined by Reed et al. (2010) as: "A change in understanding that goes beyond the individual to become situated within wider social units or communities of practice through social interactions between actors within social networks". Public participation is able to initiate a social learning process that goes beyond predefined interests or values, which creates opportunities for a shared understanding and collaboration across stakeholder groups. (Garmendia & Stagl, 2010).

Through stakeholder engagement, continuous communication, cooperation and exchange of knowledge and resources will develop (Gonzalez-Porras et al., 2021). This relational and dialogic process results in shared interests and a stronger sense of ownership and community. Due to the strong supporting role stakeholder engagement can play, it is the ideal tool to accelerate societal change in favor of sustainability (Pruitt et al., 2005). Within these systematic changes the involved stakeholders are able to take up the role of change agents, while the collaborative context of stakeholder engagement forms the change agency (Gonzalez-Porras et al., 2021).

1.4. Coastal stakeholder landscape

1.4.1. Framework for stakeholder identification and assessment

a) Stakeholder identification

In order to improve the quality of participation processes, it is crucial to understand the complexities of the stakeholder landscape within a certain context, which requires the identification of relevant stakeholders. The aim of this exercise is to identify the individuals, groups and/or organisations affected by an initiative, or the stakeholders who affect the outcomes of that initiative (Skarlatidou et al., 2019). As participant selection is a key determinant of the outcome of a participatory process, the representation of all relevant stakeholders is a crucial part of the identification exercise and the broader engagement process (Durham et al., 2014).

Stakeholder identification provides the opportunity to expose several characteristics of the listed stakeholders, such as their working field, possible (inter) linkages or their potential support/opposition. The comprehensive inventory resulting from this exercise will form the basis for stakeholder analysis in further steps of the engagement processes. Here, in the context of a specific initiative, the power, influence and interests of stakeholders can be

assessed. A pool of stakeholders will always be the starting point for the further case-based analysis and drawing up an engagement strategy (Aligica, 2006). As stakeholder relationships are highly dynamic and complex (Kujala et al., 2022), the inventory drawn up by this exercise should reflect these characteristics.

Since stakeholders assume different positions regarding social innovation topics within the sustainability transition, a compilation of stakeholder information needs to be highly flexible in order to assure a uniform and targeted approach. This will later be reflected in a BLUE BALANCE *stakeholder engagement continuum*, where several dimensions are (sub)categorised.

b) Stakeholder assessment

In order to assess the stakeholders involved in a (BLUE BALANCE) project or initiative, the power/interest matrix by Johnson et al. (2020) is a convenient tool. This model is aimed at describing a political and societal context and providing guidelines on which relational strategies to apply, based on the potential influence and power the political stakeholders have regarding a project of initiative. Since the BLUE BALANCE project aims at strengthening the social license to operate, this goes beyond the political spectrum. Therefore, the power/interest matrix is combined with the co-creation strategy of Iglesias et al. (2020), where all stakeholders are assessed based on their expertise and influence. This makes it possible to conduct a profound stakeholder assessment, which can be applied on each of the BLUE BALANCE use cases.

By combining these two analysis methods, it will be possible to determine how stakeholders should be involved within the context of a project or initiative. Based on the dimensions *power/influence* and *expertise* deriving from the analysis methods above, it's possible to define what kind of partner role a stakeholder will take up within the implementation of a project. These dimensions are defined in the following paragraphs.

Power is recognised as a core stakeholder attribute by Mitchell et al. (1997). Within managerial thinking, power is defined as *'the ability to persuade, induce or coerce others into following certain courses of action'* (Johnson et al., 2020). There are numerous typologies that theoretically define the concept of power. In essence, these mostly base themselves on Etzioni's (1964) concept, which recognises three sources of power, namely *coersive, utilitarian* and *normative-social.*

More recently Beritelli & Laesser (2011) defined another typology, based on the typology above, specifically applicable to stakeholder participation. Here, four types of power are identified:

- *Coercive power:* This refers to the extent to which an actor is assumed to have the power to force other stakeholders take actions. This is accompanied by means of force and fear. The stakeholders taking action feel pressured to act in this situation.
- *Legitimate power:* Here, the authority of the actor imposing actions on other stakeholders is perceived as legal. The power of 'empowerment' is accepted by stakeholders. This kind of power is linked to social norms.
- *Induced power:* This kind of power is acquired through stakeholder incentives (mostly economic or financial). This involves a positive remuneration to convince stakeholders to act in a certain way.
- *Competent power:* Authority here is based on the knowledge and skills of the person or organisation in power.

Stakeholder attributes as power are variable, transitory and socially constructed (Mitchell et al., 1997). The dynamic process of acquiring or possessing power affects opinions, emotions, relations and behaviour of the involved stakeholders, which creates changing and complex social networks (Boonstra et al., 1998). Given that power is a dynamic and complex concept that changes over time and space, measuring it is a difficult exercise.

As indicated above, there's discussion about the definition of the concept of power. As there are numerous definitions and typologies, there are also various methods to measure the concept. In addition, political science argues that measuring power is always an estimation rather than a display of reality. Therefore, it's crucial to stress that measuring power relies on plausibility, which does not imply that measuring power should not have as much empirical evidence as possible. Devos et al. (2016) also gives a comprehensive overview of measuring power. However, most of these methods measure power after the decision-making or implementation process (e.g. reputation method, decision method, effect research, …). Within BLUE BALANCE, **the potential power of the stakeholders** involved in a use case will be estimated prior to the implementation of this specific case.

Given the specificity of this stakeholder assessment mentioned above, only one method of estimating the potential power of stakeholders can be used: **social network analysis** (SNA). This method measures the potential influence stakeholders have within a network based on their ties with other actors within the same network by conceptualizing actors as points and their relations by lines. Stakeholders with more connections to others have a potentially bigger influence, which results in stronger ties, mutual learning and resource sharing (Prell et al., 2009). There is no consensus within literature on the distinction between power and influence. However, both concepts have a clear connection, so one often occurs in combination with the other (Devos et al., 2016). Given the definition of power by Johnson et al. (2020), the potential influence measured within SNA will lead to increased potential power. Devos et al. (2016) also argues that strong ties create an informational advantage, which is an indication of potential power.

Social network analysis tries to identify and (re)construct all connections within a social or societal context. This method reveals patterns of interaction and communication between actors in a network. Next to this, SNA is able to identify hubs, discover communities and measure how information flows within the network (Tabassum et al., 2018). However, given the specific nature for which SNA will be used here, these techniques are not applied. The sole purpose of deploying this method within the BLUE BALANCE stakeholder assessment is to measure the influence of stakeholders involved in a project or initiative.

The second dimension used for the stakeholder assessment is **expertise**, which is distinguished by specific characteristics since it is based on expertise rather than the traditional domains of science and technology. An expert is seen as someone with relevant or in-depth experience with a topic of interest. As a result, stakeholder expertise is not seen as purely scientific, but rather as a representation of subjective reality that exposes actual societal trends. These trends could also be intersubjective, meaning that they represent the reality of a broader group of individuals, making them socially embedded and highly relevant for the political system (Kreuger et al., 2012; Krick, 2018).

1.4.2. Expert perspectives on participation

Expert interviews are a method of qualitative empirical research, designed to explore the knowledge of experts regarding a certain topic. Engaging with experts is an efficient and concentrated method of gathering data in the exploratory phase during the implementation of a project and initiative, which makes it an ideal starting point for structuring the research area (Meuser & Nagel, 2009; Bogner et al., 2009). The main purpose of executing an expert interview is knowledge mining on a specific topic or theme. Next to this, a fundamental characteristic for defining an interview as 'expert interview', is that the interviewer is at least considered as a quasi-expert on the researched topic. The ability to share in-depth knowledge on a particular topic, and the interviewer being able to actively respond to this provides an inherent advantage of the expert interview (Pfadenhauer, 2009).

The interviewed experts may belong to the target group of the conducted study, which provides a unique source of information about the researched process. This results in sourcing **operational knowledge**. However, it is also possible to survey experts who are not part of the research population. These are deliberately used as a complementary source of information, which results in **contextual knowledge** (Dorussen et al., 2005; Bogner et al., 2009).

In order to develop user-friendly tools that create social acceptance and support within the sustainability transition, insights and experiences from the key actors in the participatory landscape of the Blue Economy in Flanders should be gathered. Several expert interviews will be conducted for this purpose. These will form the foundation for the development of engagement guidelines in a later phase of this report. This way the results of the interviews and the engagement methodology that emerges from these will address the participatory needs of the Advisory Board.

1.5. Aims and tasks of WP2: The foundations for sustainability transition and stakeholder engagement continuum

The overall objective of BLUE BALANCE is to increase public engagement and participation in the sustainable transition of the Flemish coastal region. The deliverable D2b.1 – 'A Concise and use-friendly overview of sustainable topics for the Belgian coast' has the **specific objective**:

- To provide insight into the sustainability topics and participative approaches (with sustainability as a prerequisite) already covered in the past, including the stakeholder profiles involved (or forgotten) in these processes and initiatives.
- To collect experiences and best practices from past and ongoing projects through stakeholder interviews to gain insights into the stepping stones for sustainable transition.
- To examine for which future sustainability projects and innovations the strengthening of the social license to operate is most crucial.

This contributes to the overarching objectives of the BLUE BALANCE project, namely:

1. Increase public engagement and participation in the sustainable transition of the Flemish coastal region, and thereby enhance public acceptance, support and adoption of required sustainable actions.

2. Stimulate dialogue between residents and tourists of the Flemish coastal region and local industrial and policy stakeholders.

Work Package 2b of BLUE BALANCE – 'Stakeholder engagement and sustainable coastal development' consists of several tasks that contribute to the development of an overarching overview and assessment of participatory processes to serve as knowledge base for future initiatives:

- The first task of Work Package 2b 'The foundations sustainability transition' (T2b.1) provides insights into the sustainability topics and participative approaches already covered in the past, including stakeholder profiles involved in these processes and initiatives. This task focuses on compiling a 'Coastal Backbone', where all relevant processes, ongoing or finished projects, fora and initiatives in the context of sustainability are consolidated and assessed based on their thematic focus, connection to the Flemish coastal context, sustainability and participatory intensity.
- The second task of Work Package 2b 'Stakeholder engagement continuum' (T2b.2) will identify and (sub)catergorise stakeholders according to various dimensions. This task concentrates on developing a stakeholder assessment framework based on stakeholder identification and mapping. Also, this task will conduct expert interviews with stakeholders selected through the development of a 'Coastal Backbone'-shortlist of best-scoring projects in T2b.1.
- The third and last task of Work Package 2b 'Perspectives of stakeholders on public participation interventions for the selected use cases' (T2b.3) contributes to the development of user-friendly engagement tools that create support within sustainability tansitions. For this, understanding stakeholder perspectives on participatory processes is crucial. To capture these, in-depth interviews with stakeholders from policy, industry and research are conducted. The identified visions, needs and barriers will be the breeding ground of the guidelines for the development of the public participation interventions. This report will cover the execution of the interviews, the identification of the insights and will develop general participatory guidelines.

Briefly, the Deliverable **D2b.1 'Blueprint for stakeholders: Launching participatory processes for coastal sustainability transitions'** report covers several thematic sections:

- **Coastal Backbone:** The listing and assessment of participatory sustainability projects that are have been ongoing in the Flemish coastal zone.
- **Stakeholder engagement continuum:** The compilation of stakeholder data that will be used to start establishing a stakeholder mapping and the engagement strategy as part of a BLUE BALANCE case roll-out.
- **Expert interviews:** The questioning of participatory experts who were involved in sustainability projects around their experience and perceptions.
- **Blueprint for profound participation:** The engagement methodology that is developed to guide the development of participatory processes for coastal sustainability transitions

These thematic sections are represented in this report as three major parts:

- **Part I:** Sustainability topics in a participatory Blue Economy

- **Part II:** Participatory experiences and best practices of the Blue Economy in Flanders
- **Part III:** Blueprint for profound participation

To publish all the information as a concise report, certain sections were removed from the original Milestones 2b.1 and 2b.2. This report consists of the following milestones:

- **Milestone 2b.1:** Compilation of the available information on participatory stakeholer processes for the Belgian coast (linked to Task 2.b.1)
- **Milestone 2b.2:** Coastal stakeholder mapping and expert interviews on participation (linked to Task 2.b.2)
- **Milestone 2b.3:** In-depth interviews with key actors from policy and industry (part of Task 2.b.3)

2. Part I: Sustainability topics in a participatory Blue Economy

2.1. Methodology: construction of the Coastal Backbone

To take a structured approach to collecting initiatives and projects, the starting point was the information from the Compendium for Coast and Sea - Knowledge Guide Coast and Sea 2022 (Dauwe et al., 2022). Next, a desktop study was conducted by consulting several project databases: Projectendatabank – Provincie West-Vlaanderen; Community Research and Development Information Service (CORDIS); Interreg 2 Seas Approved projects; Interreg North Sea Region project database; MOW Vlaanderen - Havenprojecten; and Cordis Europa. This data matrix (the Coastal Backbone) was further enriched by expert input from the Policy and Innovation department of the Flanders Marine Institute (VLIZ), the Province of West-Flanders and the BLUE BALANCE Consortium. Given the wide diversity among the initiatives, the Coastal Backbone is divided into several matrices: projects, stakeholder platforms, organisations and events.

2.1.1. Selection criteria

Five fundamental selection criteria were formulated for the inclusion of projects and initiatives in the *'Coastal Backbone'* of the BLUE BALANCE project:

- Time: The time frame was set at 2015-present; this includes both ongoing projects and new projects that are initiated in 2015. This frame was determined in consultation with the Consortium given that this is the starting year for complex projects.
- Type: government-funded projects, government initiatives and private initiatives with participatory trajectories.
- Region: The Flemish coast was chosen as a geographic scope, which means that projects and initiatives should have at least one partner or activity in this area.
- Sustainability: Initiatives where sustainability is clearly included in the objectives.
- Participatory approach: A multi-stakeholder approach is applied during the execution of the initiative.

2.1.2. Input categories

For all selected initiatives and projects, following information was collected:

- Administrative policy level: This is the level at which the project or initiative was funded. Ranging from European to municipal level.
- Funding Program: The funding channel that provides the budget for the project/initiative.
- Website: The website where the most relevant information related to the project/initiative can be found.
- Start- & End Date: Start and end date of the project or initiative.
- Coordinating organisation: The organisation that takes charge of the implementation of the project or initiative.
- Contact Person: A person from the coordinating organisation who acted as a central point of contact during the duration of the project/initiative.

- **BE partners**: The other Belgian partners, in addition to the possible Belgian coordinator, collaborating on the project/initiative.
- **Topic label**: This describes the central focus or the overall objective of the project/initiative.

2.1.3. Assessment criteria

To estimate the relevance and usability of the entries of the Coastal Backbone, the consortium decided to elaborate on three main assessment criteria: **coastal connectivity, sustainability and participation**.

a) Coastal connectivity

According to the scope of the BLUE BALANCE project, all initiatives are evaluated on coastal connection in Flanders. The Flemish coastal zone consists of ten coastal municipalities (Blankenberge, Bruges, Knokke-Heist, Bredene, De Haan, Middelkerke, Ostend, De Panne, Koksijde and Nieuwpoort) and nine hinterland municipalities (Damme, Jabbeke, Zuienkerke, Diksmuide, Lo-Reninge, Gistel, Oudenburg, Alveringem and Veurne) (Dauwe et al., 2019) (figure 1). The link to the coastal zone can be multiple: either a partner is active in the Flemish coastal zone, there can be a pilot/demo site of a project in this zone or applied research is conducted in this area. The coastal connectivity criterion will use a colour code to indicate the direct link to the coastal zone (dark blue) or having no link (grey).

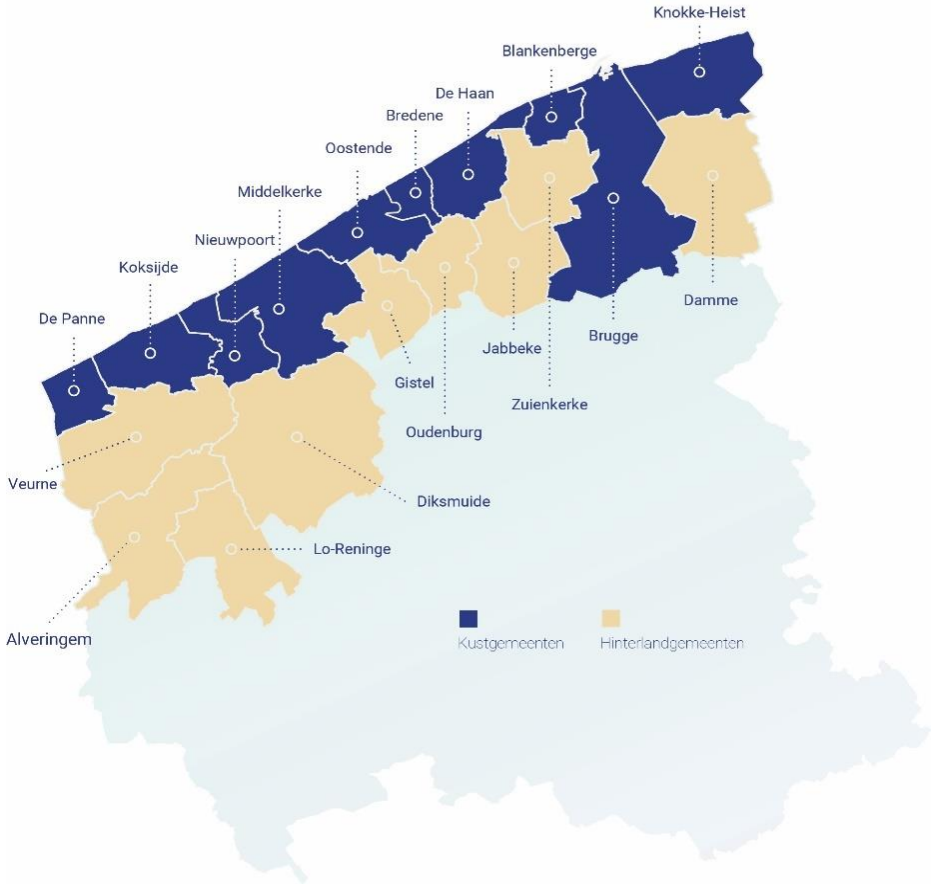

Figure 1: BLUE BALANCE area (Dauwe et al., 2019)

b) *Sustainability*

To be able to map and adequately assess the topics and initiatives for sustainability, a BLUE BALANCE Sustainability Framework is developed. To use the concept of sustainability, two internationally established frameworks are used as foundations: the UN Sustainable Development Goals (SDGs) and the EU Taxonomy for Sustainable Activities (TSA). The EU TSA will form the backbone of this evaluation.

Within the EU TSA, six environmental objectives (EO) were put forward. For each of these EOs, the corresponding SDGs were listed in Annex I. To assign a certain sustainability score to a project/initiative, all EOs should be linked to one or more SDGs. For this purpose, the targets of the SDGs will be screened for similarity with the EOs.

c) *Participatory approach*

To compile information about the listed processes and the stakeholders involved, based on literature, several key specifications will be defined related to stakeholder participatory approaches and the objectives of the BLUE BALANCE project (related to public acceptance, citizen engagement). Below, the three key dimensions for the participatory approach are explained: citizen involvement, stakeholder group, and level of participation. Finally, stakeholder engagement methods applied in these projects will also be listed.

<u>Dimension I: Citizen involvement</u>

In the context of the BLUE BALANCE project, citizen engagement is highly prioritized given the growing importance of engaging public stakeholders, and in particular citizens, to establish and support sustainable transitions (Huttunen et al., 2022). There are several ways of engaging citizens in participatory approaches, for example via surveys, referendums or forums. Within these methods, the distinction can be made between citizens participating in these processes individually or collectively (Michels, 2011). Depending under which capacity citizens want to be involved, some prefer to be represented by a collective or a (non-profit) organization, while others prefer direct representation and take matters into their own hands (Beetham, 2012).

Therefore, the dimension citizen involvement has three possible scores:

- Citizens are involved as individual (dark blue)
- Citizens are involved as collective (light blue)
- Citizens are not involved (grey)

<u>Dimension II: Stakeholder group(s)</u>

The 'Quintuple helix model' (Carayannis et al., 2012) will be used to identify key agents. By recognizing five societal subsystems, the Quintuple Helix visualizes the interaction and exchange of knowledge within society. The stakeholders of the listed projects and initiatives were classified according to the five subsystems:

- The education system: Academia, universities
- The economic system: Industry, firms, entrepreneurs
- The political system: State, government, administrations
- The media-based and culture-based public: Civil society
- The natural environment: People with a 'natural capital' (resources, plants, animals, …)

This model of innovation offers society a suitable way to understand the crossover between knowledge and innovation to promote and create a lasting sustainable development.

Dimension III: Level of engagement

As this framework needs a broad framework to cover the different approaches to stakeholder engagement. The 'Public Participation Spectrum' by the International Association for Public Participation (2007) will be used for this (figure 2). This approach scores the influence that participants have on the outcome of engagement processes and examines who has control over the agenda. The Spectrum distinguishes five different levels of stakeholder/participant engagement: inform, consult, involve, collaborate, and co-create (Nelimarkka et al., 2014).

	1 - INFORM	2 - CONSULT	3 - INVOLVE	4 - COLLABORATE	5 - EMPOWER/CO-CREATE
PUBLIC PARTICIPATION GOAL	Provide the public with balanced and objective information to assist them in understanding the problem, alternatives, opportunities, and/or solutions.	To obtain public feedback on analysis, alternatives, and/or decisions.	To work directly with the public throughout the process to ensure that public concerns and aspirations are consistently understood and considered.	To partner with the public in each aspect of the decision including the development of alternatives and the identification of the preferred solution.	To place final decision making in the hands of the public.
PROMISE TO THE PUBLIC	We will keep you informed	We will keep you informed, listen to, and acknowledge concerns and aspirations, and provide feedback on how public input influenced the decision.	We will work with you to ensure that your concerns and aspirations are directly reflected in the alternatives, and provide feedback on how input influenced the decision.	We will look to you for advice and innovation in formulating solutions and incorporate your advice and recommendations into the decisions to the maximum extent possible.	We will implement what you decide.

Figure 2: International Association on Public Participation - Public Participation Spectrum

To score the projects that are included in the database, every level of the Spectrum will match with a value between 1 and 5. Inform (1) is the lowest value of our scale, while empower/co-create (5) is the highest value (figure 2). Scores are awarded based on the approach used, which can be found in the project/initiative documentation (reports, website, publications, etc.).

2.2. Results: The Coastal Backbone

The Coastal Backbone of initiatives received 141 entries (Annex II & III). These can be divided into four different groups: 104 projects (74%), 19 stakeholder platforms (13%), 13 organisations (9%) and 5 events (4%). Based on all the entries, 76% have a link to the Flemish coastal zone (as defined in 2.1.3).

2.2.1. Thematic clustering

To be able to cluster the topics of the entries into themes, several entries need to be excluded from this exercise, mainly due to their multi-thematic approach. These include participatory initiatives (platforms) (8) or organisations

(3) with an overarching operation within an area or region dealing with a range of topics. All remaining entries (130) were tagged with a topic label, which resulted in 23 different labels (figure 3). The topics best represented in the initiative matrix were coastal protection and aquaculture (13), followed by environmental monitoring and urban planning (10). The topics with similarities between them were then grouped into 10 thematic clusters (figure 3).

The largest thematic cluster is 'environmental quality & ecosystem services' (25 entries), followed by 'climate change adaptation' (22 entries). As the 'oceans and human health' cluster only contains one initiative, this was considered too limited for further analysis.

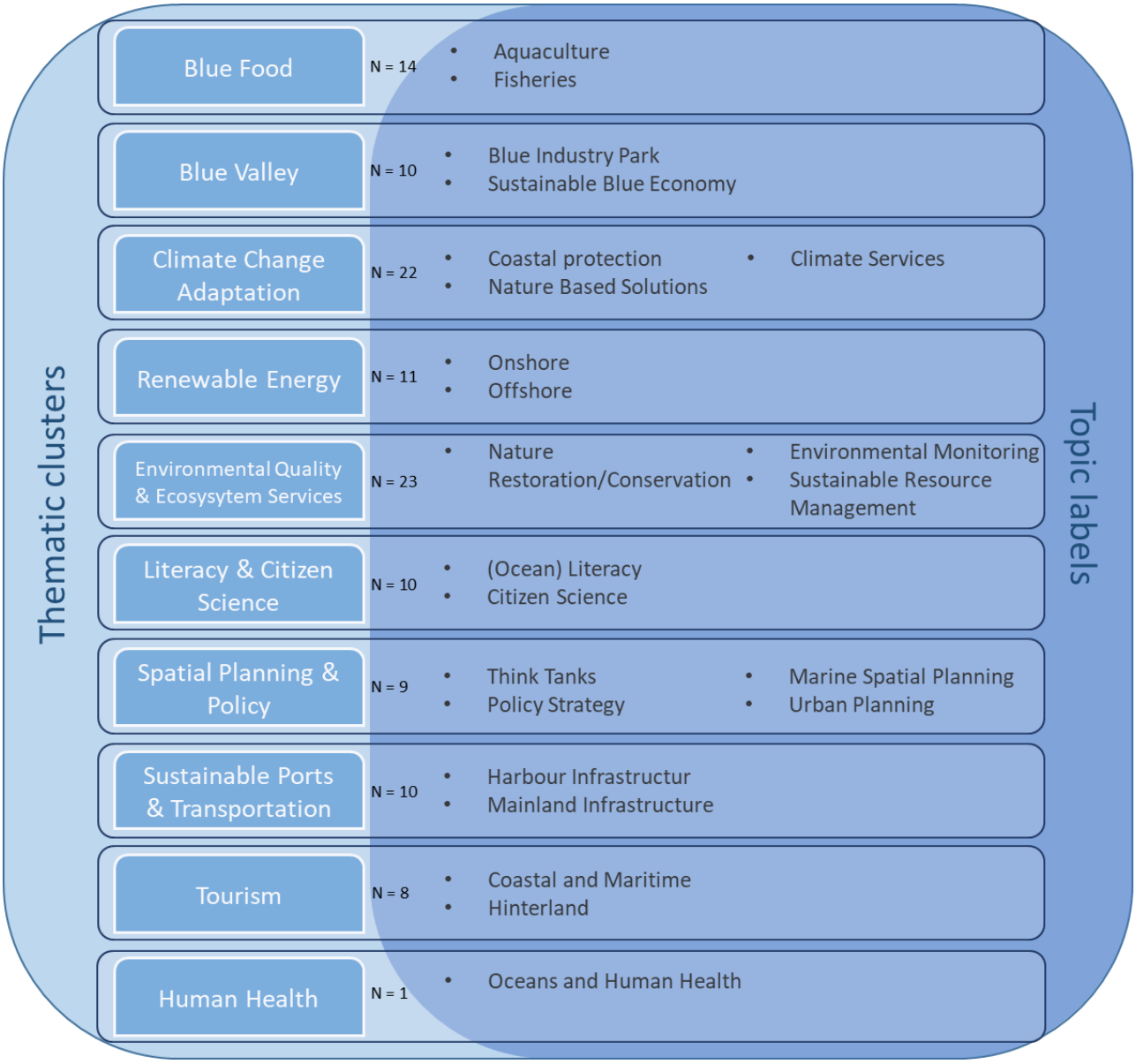

Figure 3: Thematic clusters in the Coastal Backbone

2.2.2. Evaluation of sustainability

Assigning a sustainability score (based on TSA and SDG framework) to all listed entries in the Coastal Backbone resulted in the following distribution: 71% high sustainability, 4% medium sustainability and 25% low sustainability (see figure 4). The thematic cluster 'climate change adaptation' scores best on the sustainability score as all listed initiatives within this cluster targeted both SDGs and the corresponding Environmental Objectives. The thematic clusters that have the fewest entries with a high sustainability score are 'blue valley' and 'tourism'.

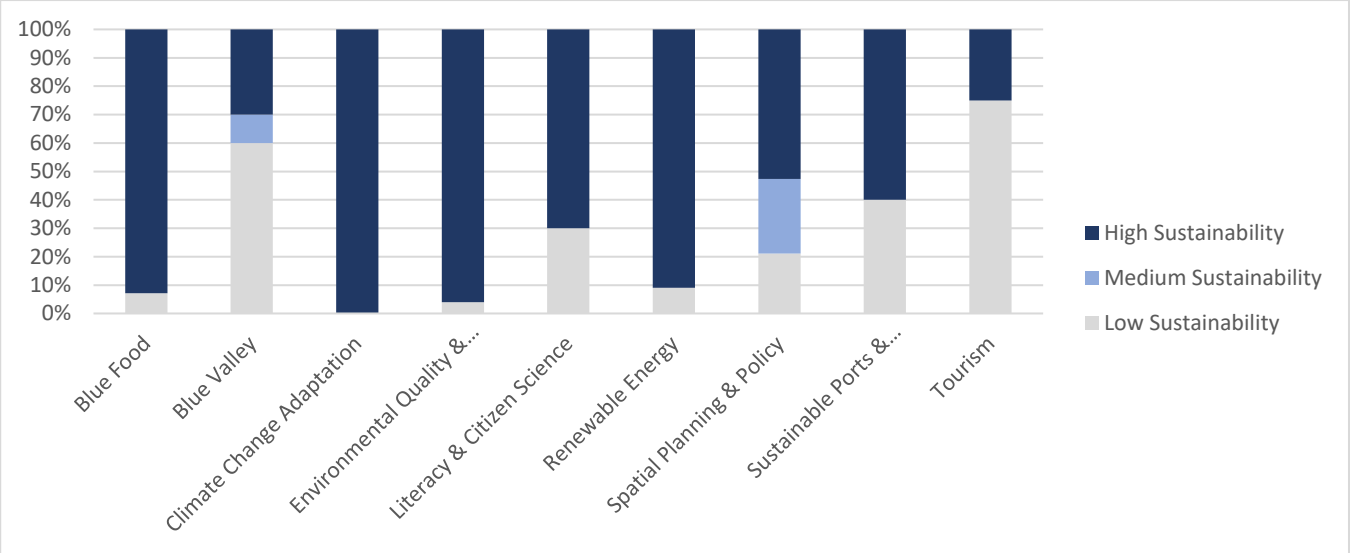

Figure 4: Distribution of sustainability scores for all entries per thematic cluster

2.2.3. Evaluation of participatory approach

a) Dimension I: Citizen involvement

By determining the extent citizens are involved in each entry of the Coastal Backbone, the following distribution for the full list can be made: 41% involve citizens individually, 17% involve citizens as a collective and 42% do not involve citizens. The thematic cluster with the highest score is 'literacy and citizen science' (figure 5), which is inherent to this type of projects. The 'blue food' cluster received the lowest score on this criterion. Here, not a

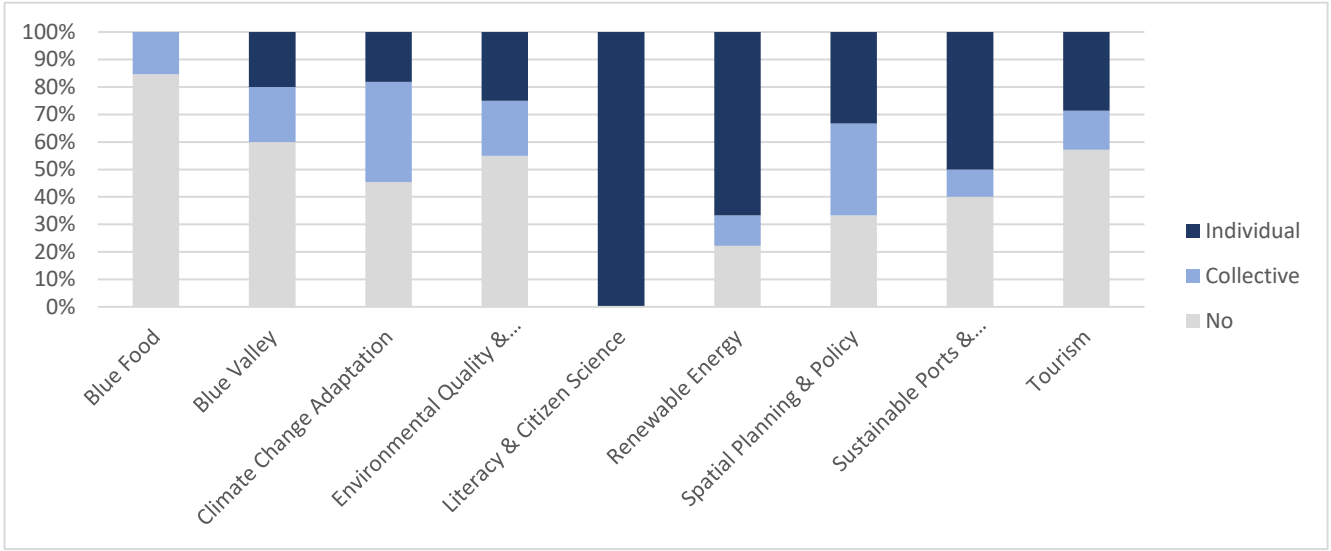

Figure 5: Distribution of citizen involvement scores per thematic cluster

single project involved citizens as individuals, 15% of the projects involved citizens as collective, thus 85% involved no citizens.

Looking at the 'citizen involvement' dimension, it can be assessed whether the capacity under which citizens were involved changed over time. By assigning a score to each outcome within the 'citizen involvement' dimension (no involvement: 1, as collective: 3, as individual: 5), it is possible to calculate the annual average involvement rate. Looking at these averages (figure 6), it is clear that they stayed stable between 2015 and 2022, meaning that there's no big change in the capacity under which citizens are involved as stakeholders for the selection of projects in the Coastal Backbone.

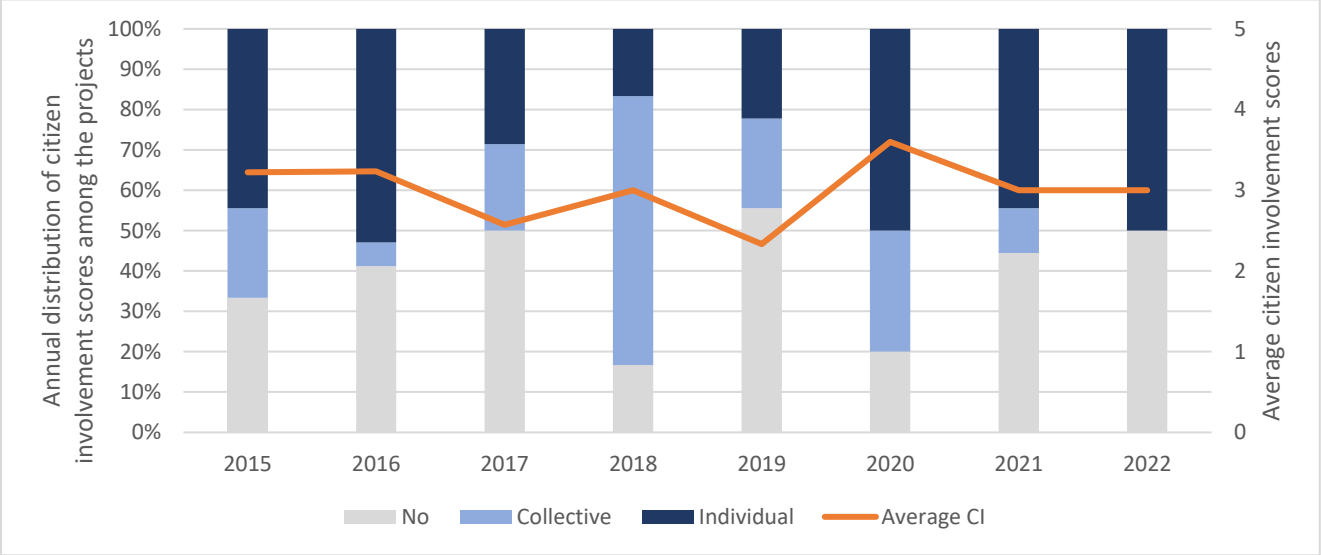

Figure 6: Yearly average citizen involvement score and the corresponding distribution

b) Dimension II: Level of engagement

Evaluating all the entries of the Coastal Backbone on their stakeholder engagement level revealed the following distribution: 20% no participation (0-score), 16% inform (1-score), 22% consult (2-score), 20% involve (3-score), 8% collaborate (4-score) and 14% empower/co-create. Figure 7 represents the percentage distribution of the engagement level of all entries by thematic cluster.

The thematic cluster containing the most intense participatory approaches is the 'spatial planning & policy' cluster. Here, 44% of the listed projects received one of the two highest possible scores on the 'level of engagement' dimension. Within 'tourism' cluster, not a single listed project received a high ranked score, making these projects the lowest scoring cluster.

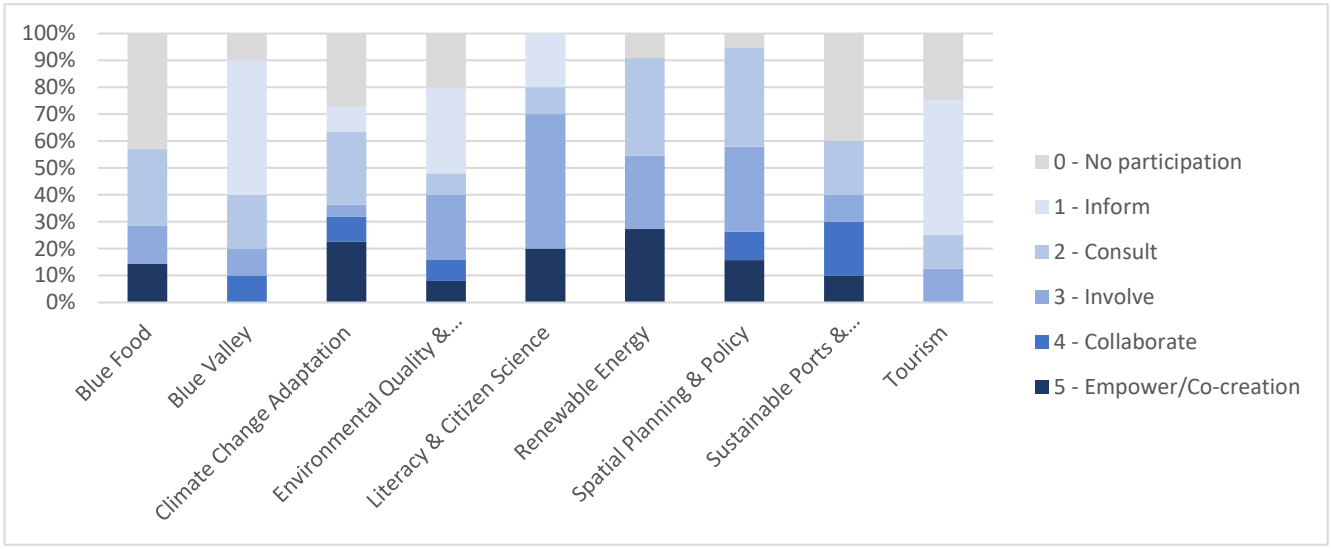

Figure 7: Distribution of level of engagement scores for all entries per thematic cluster

The stakeholder engagement scores (figure 8) were divided in 3 groups: no participation (score 0), medium engagement (score 1 inform + 2 consult), and collaboration (score 4 collaboration + 5 empowering) and presented over time based on starting date of the project. That classification shows that the more intensive stakeholder participations have increased during the last few years, meaning there's a decrease of the classic approach (informing, consulting) and the projects without stakeholder participation.

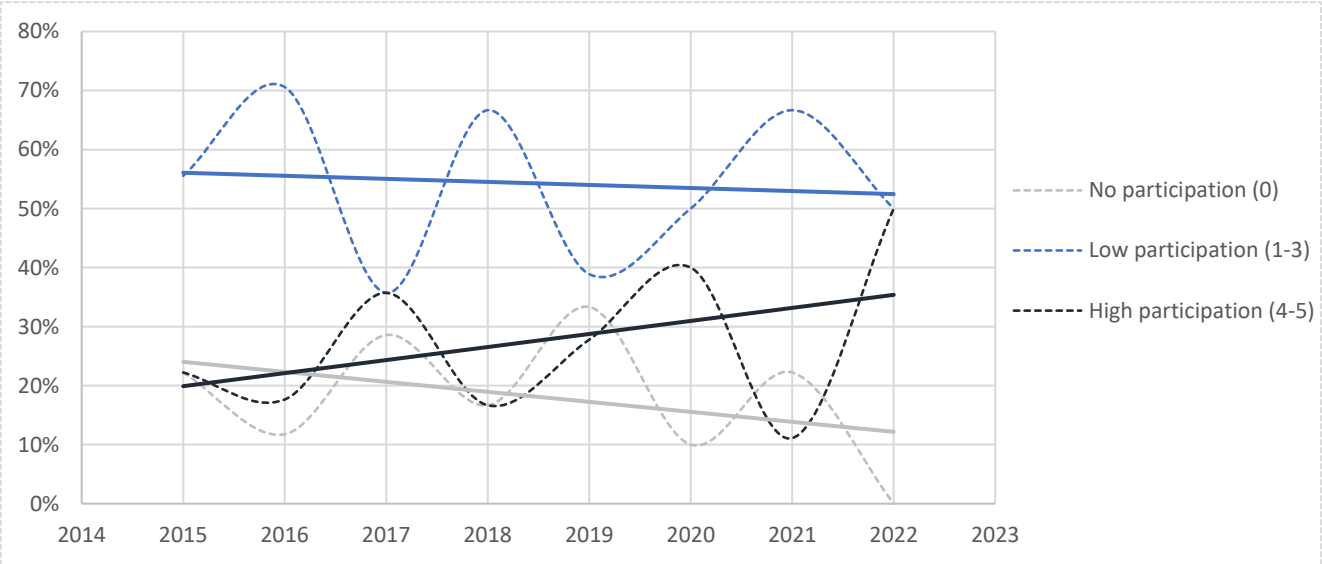

Figure 8: Evolution of annual distribution among participation levels

2.2.4. Shortlist development

Based on the previous results, it is possible to identify the most relevant processes for the continuation of this report. This is defined as a process having a high degree of sustainability and intensive participation (collaboration or co-creation). Applying these criteria to the Coastal Backbone results in a shortlist of the 14 most relevant processes (Annex VI). The coordinators and/or those responsible for the participatory part of the projects will be invited for an expert interview. The experiences and perceptions of these engagement experts will form the basis for developing participatory guidelines.

2.3. Results: Classification within the Blue Economy framework

In a narrow definition, the Blue Economy includes all sectors linked to the ocean, seas and coasts (De Backer, 2017). A broader interpretation includes the natural resources and ecosystem services that the oceans provide, next to the economic sectors (Eikenset et al., 2018). Hence, within this interpretation, two pillars are identified: the ecological and the economic (Martens et al., 2022). Besides the diversity in terms of definitions, there are also different interpretations of the sectors that make up the Blue Economy. Depending on the executing entity and the applied approach, several classifications occur (Martens et al., 2022). As the scope of the Blue BALANCE project fits within the EU Green Deal, the EU Blue Economy Report (2022) will be used as a guiding framework for the classification of the projects and supplemented where necessary by further classification based on the themes put forward by the Blue Cluster.

2.3.1. EU Blue Economy Report

The yearly EU Blue Economy report aims at supporting policymakers and stakeholders in the sustainable development of oceans and coastal resources and wants to assist in developing and implementing policy and initiatives under the EU Green Deal. For these purposes, the European Commission (EC) includes not only the traditional established sectors in its report, but also emerging and innovative sectors (European Commission, 2022). An overview of the included sectors for the Blue Economy reports published in the period 2018-2021 is given in figure 9, illustrating the dynamic nature of the Blue Economy landscape.

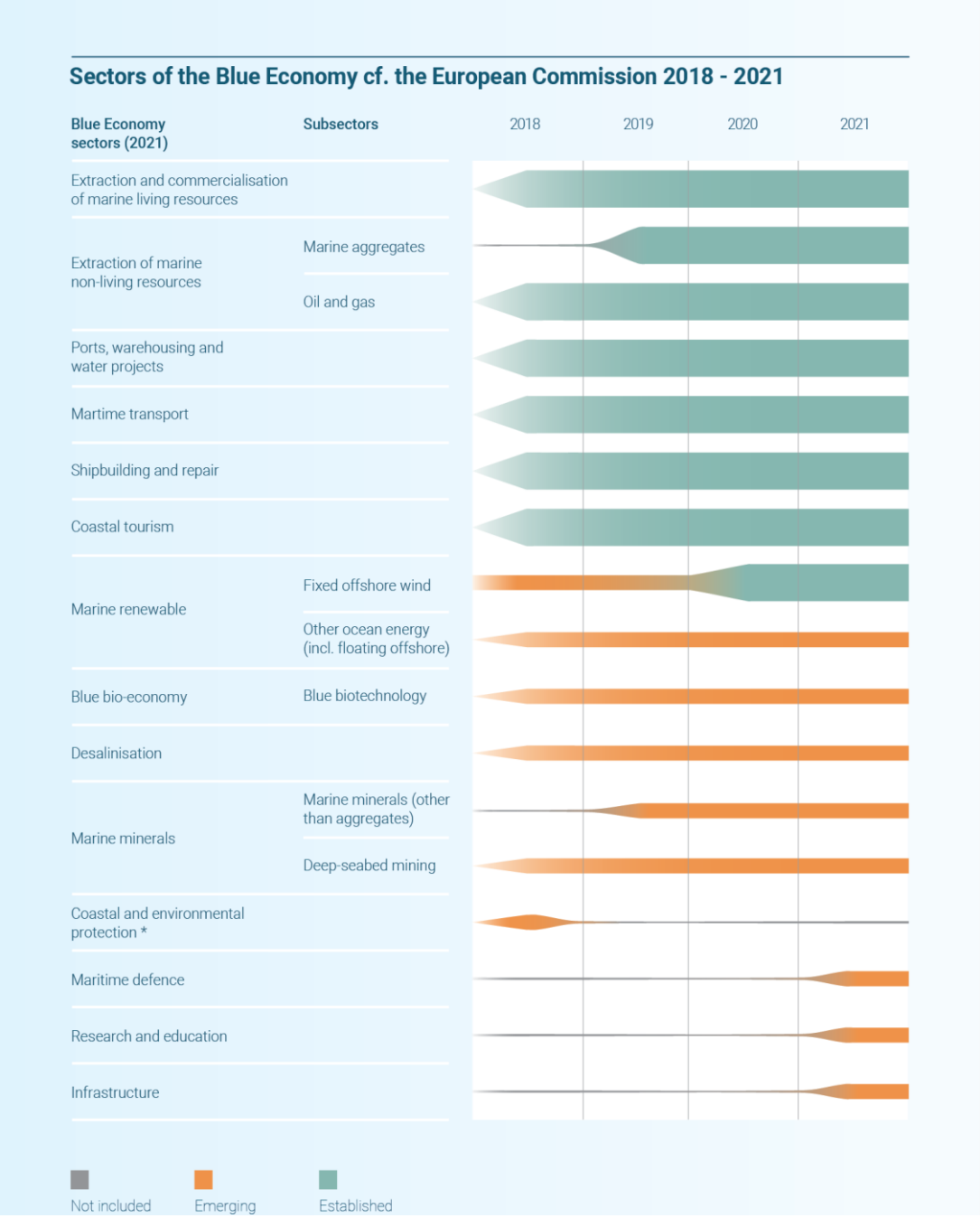

Figure 9: Overview of established and emerging sectors based on the EU Blue Economy Report 2018-2021 (Martens et al., 2022)

2.3.2. Blue Economy landscape in Flanders

To examine how the Flemish Blue Economy landscape is embedded within this European framework, the overlap between the sectors from the EU Blue Economy Report (2022) and the included thematic clusters (see 2.2.1.) is examined. It can also be assessed whether, according to the BE report, it is classified as an emerging or established sector. Approximately half of the listed projects (52%) fit within the EU Blue Economy sectors. The largest sector is 'extraction of marine non-living resources'. This includes the topics 'climate services', 'coastal protection' and 'nature-based solutions'. The projects belonging to the EU Blue Economy sectors are mainly found within the established sectors, with 80% belonging to this group, making 20% belong to the 'emerging' sectors.

Within the remaining part of the projects (48%) that cannot be categorised within the EU Blue Economy sectors, a different distinction can be made. Namely between transversal activities and non-coastal activities. For transversal activities, a differentiation can be made between ecosystem approach and smart sea (cfr. the domains used by The Blue Cluster).

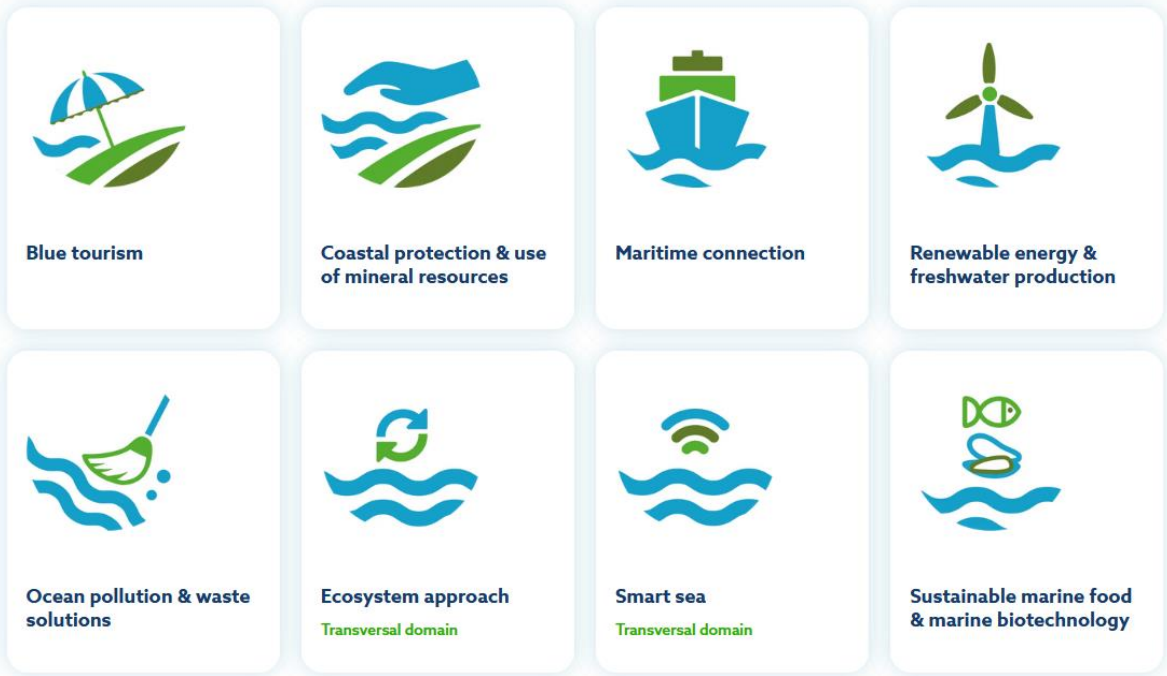

Figure 10: The Blue Cluster domains (source: The Blue Cluster)

The Blue Cluster (DBC) was recognised by the Department of Economy, Science and Innovation (EWI) of the Government of Flanders as a spearhead cluster for the Blue Economy in 2018. It was established within the context of the Flemish cluster policy (see the cluster Decision of 4 March 2016), where frameworks for collaboration between Flemish companies are created. The cluster pact was signed in February 2019. From now on, The Blue Cluster is a fully-fledged spearhead cluster in the innovation landscape of Flanders. These spearhead clusters operate within a wider scope than business networks, they adopt the triple helix model where companies, research institutes and government work together (Martens et al., 2022). The Blue Clusters works within six thematic

domains: blue tourism, coastal protection & use of mineral resources, maritime connection, renewable energy & freshwater production, ocean pollution & waste solutions, and sustainable marine food & marine biotechnology (figure 10). These six domains fit within the Blue Economy sectors put forward by the EU. In addition to this, the Cluster also stresses two transversal domains that don't correspond with the EU Blue Economy sectors, namely ecosystem approach and smart sea. Of the projects that could not be categorised within the EU Blue Economy sectors (50 entries), 32 fit within the transversal domains of The Blue Cluster. The remaining 18 projects that cannot be categorised within the Blue Economy sectors nor transversal domains are projects covering non-coastal activities, which shows that the Flemish coastal region has numerous activities in which sustainability and/or participation are put forward, apart from the Blue Economy (see figure 11).

This distribution indicates that the Blue Economy in Flanders is developing very well along with European trends. Moreover, the presence of numerous projects within transversal domains demonstrates the strong innovative character present within the Flemish landscape. Indeed, these are within sectors not yet recognised by the European Union, so it can be assumed that they belong to pioneering sectors.

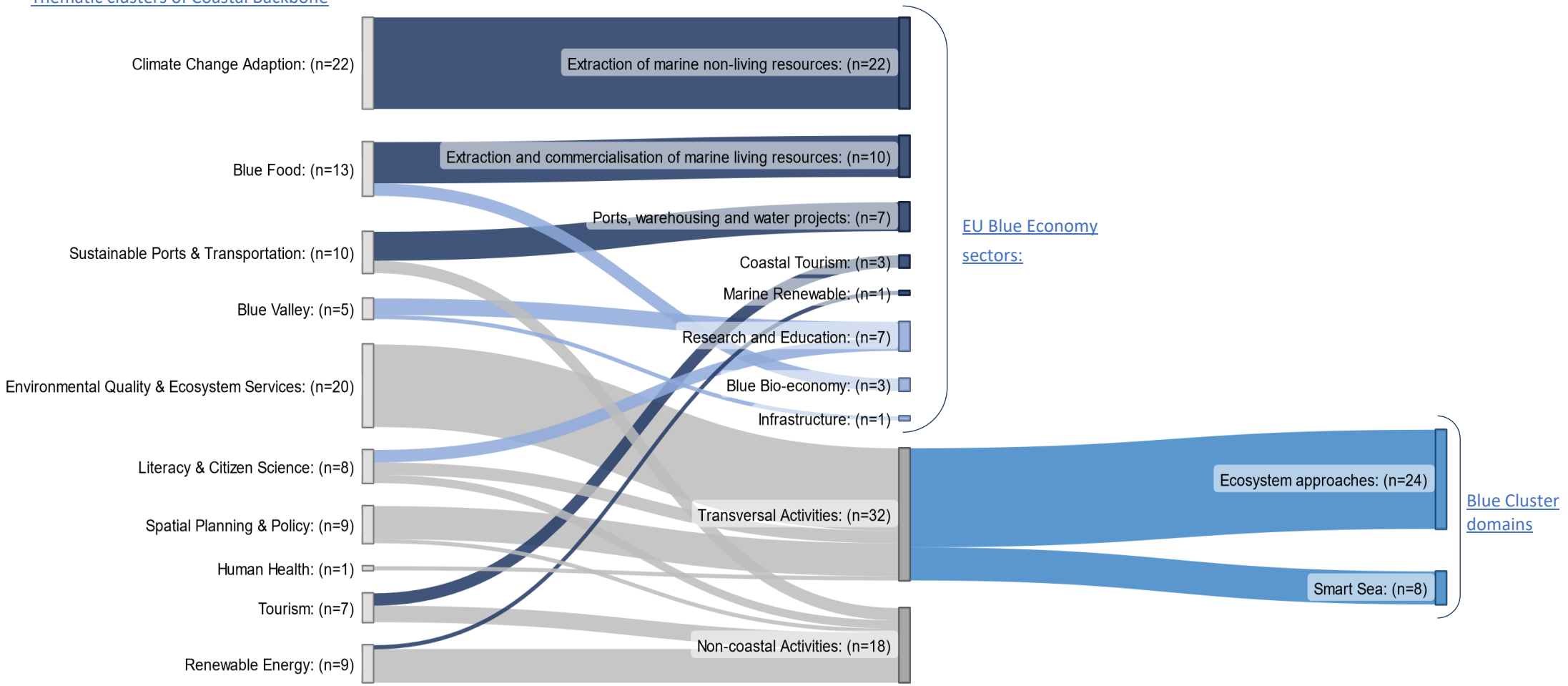

Figure 11:Distribution of BLUE BALANCE thematic clusters among Blue Economy sectors

3. Part II: Participatory experiences and best practices of the Blue Economy in Flanders

3.1. Methodology: expert interviews and collecting insights on participation

3.1.1. Expert interviews

The selection of the interviewees is based on the shortlist of projects that was identified in 2.2.4 and the members of the Advisory Board of the BLUE BALANCE project. After the assessment of the Coastal Backbone, the projects with the most intensive participatory approach, a high value on the sustainability framework and a link to the Flemish coast were included in a shortlist of 14 different projects (Annex IV). The coordinators of these applied participatory trajectories were contacted for a semi-structured in-depth interview. As well as coordinators, the members of the BLUE BALANCE Advisory Board were contacted. Given that the latter were not selected based on their experience with stakeholder engagement, they were inquired about the person best suited within their organisation. Lastly, through ad hoc snowball sampling during the interviews with the Advisory Board members, several additional engagement experts were highlighted by the interviewees. These external experts were also contacted for an online interview.

The interviews that are conducted with the Advisory Board members and the experts they identified follow the same structure as the shortlist interviews. However, there can be no referral to a specific project or case. Because of this, before the interview, the experts were inquired about their most recent experience with participatory processes.

The relevant participation experts of the shortlist established above and of the Advisory Board members were invited for the interview between the 2nd October 2023 and the 30th of November 2023. The first part of the interviews consists of several introductory questions, but do not include socio-demographic factors (e.g. age, gender, education). The following part aims to capture the perceptions and knowledge they have towards participation. The last set of questions addresses the lessons they learned and the best practices they identified based on reflections after the participatory process. For the members of the Advisory Board, there are additional questions about what kind of challenges they see related to participation and what future trajectories will need social support creation. This way, the Consortium gains insight into key trajectories in Flanders where the developed BLUE BALANCE tools will be able to be implemented through these additional questions. The full list of interview questions is listed in Annex V.

Sixteen online in-depth interviews (average duration 45 minutes) were conducted with experts identified via the shortlist and the Advisory Board members. The respondent's personal information was collected, processed and managed within General Data Protection Regulation (GDPR) and other relevant international privacy laws.

3.1.2. Interview processing: qualitative data analysis

The data collected through the interviews will be analysed using qualitative analysis (Mortelmans, 2013), which is based on the grounded theory by Strauss & Corbin (1990). Within this method, the same chronology is always

applied. First, the data is organised and structured. Here, this involves transcribing the interviews. The relevant data is then divided into smaller parts. More precisely, codes or labels are identified within the transcripts. The coding is executed by a three-stage approach, namely open, axial and selective (Strauss & Corbin, 1990).

1. Open coding: Within this process, the data is broken up into labels or codes. These codes correspond with actions, events, characteristics, … identified in the interview transcripts.
2. Axial coding: Here, the established codes are compared with each other and clustered into coherent categories and possibly subcategories.
3. Selective coding: Lastly, one or several categories are given a central role. The other categories are placed around these crucial ones to produce theories, concepts or storylines.

As explained above, codes or labels that are connected to each other are linked into bigger clusters. Finally, relationships between these clusters are analysed for theory building purposes. This research cycle can be repeated several times, with constant comparison and adjustment of both the coded labels, as the questionnaire. Based on the questionnaire (Annex V) the following thematic emphases, and thus core label categories, can be expected within the processing:

- Approach of participation processes: The main methodological elements of the participatory pathways within the Flemish blue economy are identified through the interviews. The focus here is on stakeholder composition, the engagement methods, the level of engagement applied and the communication strategy
- Perceptions on public participation: The engagement experts are asked about their views on public participation. Here the focus is on their motivation to engage in participatory work and what their evaluation of this process is.
- Experiences with public participation: Here, we survey what the engagement experts considered to be the major weaknesses and strengths within the applied participatory approach. The emphasis is on identifying best practices and the main obstacles during this process.

Based on the interview questions, each belonging to a certain label category, a number of subcategories can also be defined already. This structure (see figure 12) will form the baseline for the qualitative analysis.

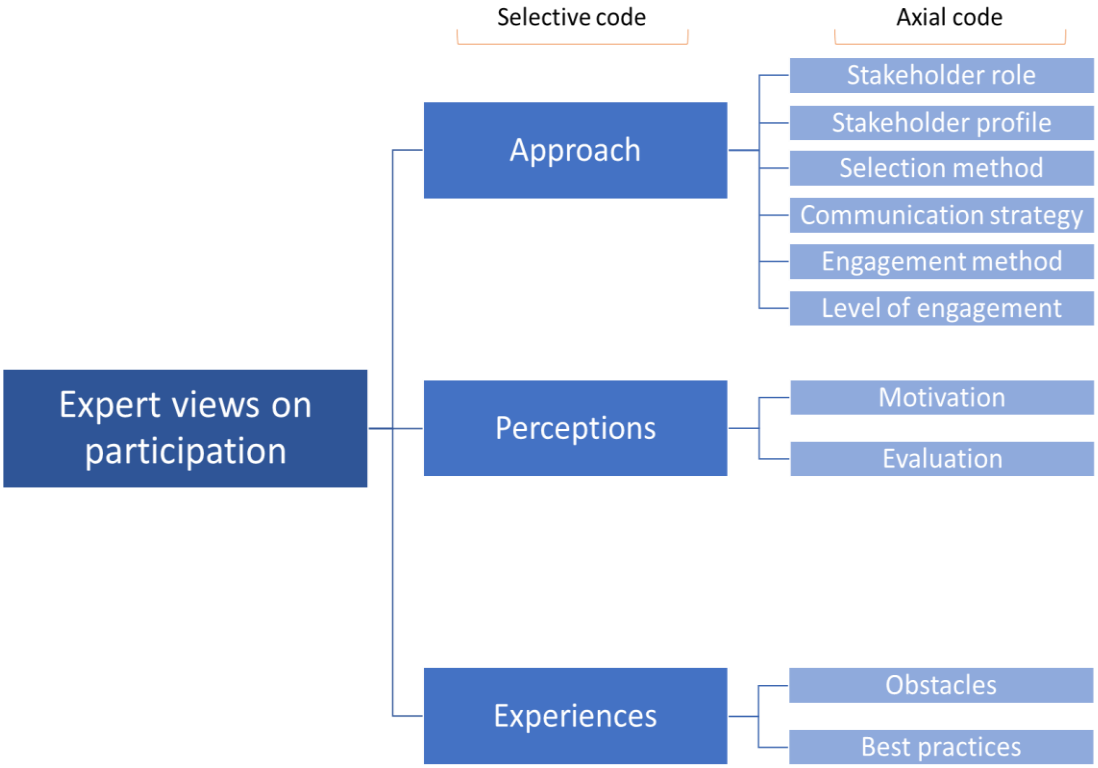

Figure 12: Predefined code tree expert interviews

3.2. Results: Expert insights on participation

Based on the questionnaire and the objectives of the in-depth interviews, a preliminary codebook was established (see figure 12). The starting point here is the thematic emphases highlighted above. Based on the interview questions, several subcategories were already defined before conducting the interviews. The identified codes (open coding) were then linked to these subcategories. The following paragraphs highlight the most frequent and intensive codes found within the subcategories.

3.2.1. Approach of the participatory trajectory

a) Stakeholder role of the interviewee in their participatory trajectories

In general, our interviewees were either **coordinators** of an entire project or a **work package leader** related to stakeholder engagement. Hence, there is little diversity within the answers that define their role in the project.

b) Involved stakeholder profile in the participatory trajectories

The stakeholder profiles that were involved within the participatory pathways surveyed are very diverse. The full spectrum of stakeholder groups (based on Quintuple helix model by Carayannis et al., 2012) is mentioned by the interviewees. In addition, the participatory trajectories within the Blue Economy in Flanders do not only focus on stakeholders directly involved within the field of action of the project or initiative. The emphasis is thus not only on

engaging a **community of practice**[1], but also on involving a **community of place**[2]. By doing this, all interviewees acknowledged the importance of the local context in which a project or initiative operates.

c) Selection method for assembling the stakeholder composition

Numerous methods were mentioned within the interviews to select the stakeholders that should be involved within the discussed project. It is notable that only a few projects start their stakeholder selection with an adequate mapping of the stakeholder landscape before proceeding to the actual selection. In terms of methods, projects generally work based on **existing networks**, which continue to grow organically through so-called **'snowballing'**. Here, selected stakeholders indicate which actors could still be included in the project. Lastly, in order to involve the community of place mentioned before, some projects used **open calls** on social media our through email in order to reach out to the local context in which their project took place.

d) Applied communication method and strategy

In terms of communication, the same tools and strategies are used across interviewees' projects. All interviewees used **mailing lists** to reach out to possible stakeholders and interim **reports** to inform about the project. In addition, several projects use their own **websites** to inform about the progress of their projects. Methods that are more unique but occurred on some projects are project-specific mailboxes and Q&A lists.

e) Applied engagement method(s)

The engagement methods applied within the projects surveyed are diverse. In most cases, reference was made to the use of workshops. However, this is a catch-all term for a lot of specific methods e.g. brainstorming sessions, roundtable talks and probing or thematic workshops. Next to this, some projects applied **plenary meetings** or **fora**. Lastly there were some interviewees that mentioned **bilateral meetings** with the involved partners of the project in order to align preferences before the project or for evaluations during the implementation.

f) Level of engagement

The stakeholder experts interviewed did initially not make precise references to their applied level of engagement. However, after diving deeper into the concept, it became clear that there was a difference between the intended level of engagement and what was applied for much of the projects. Often, the intended level was only applied in part of the project. However, there were also a few experts who established a co-creative process within their trajectory. Here, the stakeholders determined the thematic and content delineation, giving ownership to the actors involved.

3.2.2. Perceptions on the application of participatory approaches

g) Motivation

In terms of motivation, the experts mentioned different reasons for implementing stakeholder engagement. the key drivers will be highlighted here. The first and most frequently mentioned motive is **to create public support and consensus.** Linked to this, the experts applied stakeholder engagement with the aim of **clarifying misperceptions**

[1] Communities of practice are groups of people who share a concern or a passion for something they do and learn how to do it better as they interact regularly (Wenger, 2011)

[2] A community of people bound together by the location in which they reside, work, visit, or spend a sustained portion of their time (Signori et al., 2023)

between different actors and/or organisations. Another important reason to engage in stakeholder engagement is to **incorporate local knowledge**. It's also applied to **test the commercial and industrial feasibility** of research and/or innovation. Lastly, there are some experts that use stakeholder engagement in a more pragmatic way to **prevent appeals** and make the implementation process run more fluid.

h) Evaluation

The experts were questioned about how they evaluated their participatory process and what outcomes were typical for this. They clearly experience that applying stakeholder engagement has a positive impact on their project objectives due to numerous benefits it generates. The most significant positive outcomes of the participatory processes are **trust & community building, social support creation and establishing a common vision** which leads to **solutions with broader acceptance**.

3.2.3. Experiences with participatory approaches

Within the interviews, most of the conversation revolved around the engagement experts' experiences with the topic. Given the wide range of information, only the most common characteristics are listed here. A full list of the identified codes within the experiences can be found within Annex VI.

i) Obstacles

The main obstacle identified by the engagement experts is **stakeholder fatigue**. According to the interviewees, this is due the limited size of the Flemish blue economy landscape which often results in the same stakeholders or organisations being involved within projects or initiatives. Secondly, there are **high costs** for certain stakeholders to participate within an engagement process. Smaller, medium-sized industries and stakeholders within civil society indicate that a participatory process is very intensive which creates a high cost in terms of personnel and general operations (administration, staff movements, …). As a result, they lose motivation, resources and energy to actively participate. Coordinators and work package leaders also mentioned that **internal staff changes** cause the process to be disrupted. Given that an engagement process is based on collaboration and trust, replacing a person also slows down this process, as well as there is potential loss of quality due to the lack of knowledge or expertise that is relevant for the case or process. Finally, experts highlight difficulties caused by **shifting internal priorities**. Many companies, as well as public authorities and citizens, do not have fixed interests. As a result, the objectives of the participatory process may shift away from the agenda of certain partners over time. Some experts experienced that project objectives are pushed to the background by the involved stakeholders.

j) Best practices

A **bilateral exploration round** was the best practices most experts mentioned. For the experts, the priority is on identifying the expectations of the stakeholders involved in the project or initiative. The capabilities and resources of the partners involved can also be mapped through these bilateral exchanges. In addition, these conversations are also extremely useful to establish an **evaluation or reference framework**. Within this framework, objectives for each partner are listed. Resources, expectations and any intermediate evaluation criteria can also be defined here. The next best practice identified by most of the experts is the use of **scenario thinking**. This planning tool is considered useful by the experts to start supporting or revising every stakeholder's scenario based on research and innovation. By applying this **evidence-based approach**, experts believe the stakeholders will get a realistic view on

the feasibility of their ideas and views on certain possible developments within the project or initiative, which will enhance their acceptance of alternatives for these views. The last best practice identified by the experts was creating **ownership**. Enabling stakeholders to design the participatory process to their needs (through co-creation) increases their involvement within the project.

3.3. Results: Barriers for an effective participation process

The interviews made it clear that there was limited thought given to mapping the stakeholder landscape before determining the engagement strategy. Yet, the literature review developed above (see 1.4.1) indicates that the engagement strategy of a participatory process can be determined based on an **adequate stakeholder assessment**. The assessment starts with a stakeholder mapping exercise, where based on the potential power and expertise of the potentially involved stakeholder, it will be determined how they will be involved throughout the planned initiative. This makes the execution of a stakeholder mapping a crucial building block in the development of a project's participatory blueprint and stresses that the mapping and broader assessment are crucial within the establishment of a strategic approach of the project.

Given that the application of such a mapping exercise is not uniformly applied within the engagement landscape, there is great potential to strengthen engagement processes to create broader public support for the sustainable transition. To strengthen these processes, it is necessary to first establish what methods are currently used to estimate the stakeholder landscape. Next, the biggest barriers to applying comprehensive mapping can be outlined. The following methods were highlighted in order to assemble their specific stakeholder network for the project they were involved in:

- **Existing networks:** These are networks already established by former or ongoing established collaborations and partnerships. Given that these ties between actors are pre-existing, this is obviously the quickest and easiest way to achieve collaboration. Considering the stakeholders were already in touch with each other in the past, certain problems or discussions will also be less prevalent, which is valid reason to base their stakeholder selection on existing networks.
- **Snowballing:** Snowballing is only applied when a network or consortium has already been formed or is in the process of being formed. This method therefore only occurs in follow-up to a selection already carried out. Within the application of snowballing, the already selected stakeholders are asked to bring in other actors who could possibly be involved within the project. This can be done either before the roll-out of the project or during the implementation. Given that this is based on insights from stakeholders already involved, it also builds on existing partnerships and collaborations. As a result, snowballing also relies on existing networks.
- **Open calls:** This method was generally used by the interviewees because there was a lack of citizen response or because not enough citizens were represented within their initial project network. Through widely distributed e-mails, newsletters and social media, an attempt was made to reach a broader audience and thus achieve a greater representation.

The methods mentioned above are not entirely inadequate to apply within an engagement process. However, it is clear that in the surveyed cases, these were often applied without theoretical or strategic perspective. The interviewees indicated several barriers that prevented them from applying a more in-depth and theory-based approach.

a) Lack of knowledge on social innovation

The primary cause indicated is the **lack of knowledge on, and experience in social innovation**. Linked to this, the surveyed actors initially underestimated the importance of strategically and theoretically underpinning the participatory process. One interviewee described this barrier as follows: *"The reason why we are not yet systematically implementing this (participation methods), is the lack of knowledge and expertise among both us and the partners. No one has yet been trained in so-called 'social engeneering', which is why we can't put this into a structural and conceptual framework, even though we do feel the need for this."*

b) High cost

A next barrier that is linked to the absence of the mentioned 'social engineering' is the perceived **high costs** of particpatory processes. Mainly actors operating within small to medium-sized organisations or companies report that a participatory process is very labour intensive. As a result of their size, these organisations have fewer resources (e.g. staff, finances) that can be deployed within a participatory process. These actors also indicate that larger players such as multinationals or government bodies can mobilise resources for this more easily, which allows them to exercise more influence on the engagement process. These limitations mean that the above (cheaper) methods are more easily adopted by smaller organisations. They are alternatives that are easy and efficient to implement, making them appear the obvious option. The mentioned high costs also make some actors feel discouraged, one interviewee describes this as follows: *"Participation creates a deterrent effect for some SMEs. Numerous meetings are set up, from which there are few tangible short-term benefits for commercial companies. Everyone is expected to give the same input, without considering the capabilities of individual stakeholders."*. This quote illustrates that a one-size-fits-all engagement process is often adopted, but also that it does not take into account the individual capabilities of all stakeholders involved. The stakeholder assessment and engagement planning methodology (see 4.2) developed further on clearly does distinguish between the stakeholders involved within a specific project, resulting in a tailor-made engagement strategy.

c) Limited timeframe

A final barrier that was identified during the interviews is the limited timeframe in which engagement trajectories often operate. Most participatory pathways take place within a government-funded context. These projects are characterised by strict timeframes, while planning and setting up an engagement process is just time-consuming and intensive. Actors holding political office are tied to a specific term of service. Projects within their political remit will therefore often be under pressure to deliver results within this timeframe. On top of this, some companies seek a swift return on their investment in a project, intensifying the pressure to deliver results promptly. Consequently, taking extensive time to set up such a process is quickly considered as less important and stakeholders tend to change to quicker and more efficient methods such as those mentioned above. One interviewee described this pressure as follows: "Politicians *embrace the participatory way of thinking until it is in executive phase. Then the realisation grows that it takes more time. They then become nervous, and increase the*

pressure to deliver results. So there is a clear conflict between the outcome of a participative process and the political mandate."

3.3.1. Drivers of an effective participation process

Despite a lot of potential pitfalls in engaging in a profound participatory process according to interviewees, they also clearly indicated the need and awareness that stakeholder engagement is the method of choice for tackling complex problems and strategic projects. The interviewees identified best practices (see 3.2.3), some of which are very suitable to mitigate or solve those barriers mentioned above, which makes them the preferred tools to set up a successful engagement process with a high level of engagement, the so-called *'drivers of an effective participation process'.*

a) Bilateral exploration meetings

The first driver that appears from the series of interviews is the **bilateral exploration meetings.** This was identified by several interviewees as the ideal mechanism for identifying the expectations and capabilities of the stakeholders involved. These meetings have several advantages according to interviewees, but the most important one is clearly that it ensures that every stakeholder directly involved within the project or initiative is able to identify their preferences and ambitions for the upcoming process. Through this exploration session, it is also possible to align with the stakeholder what their ideal process looks like and which topics are most important to them. This ensures a sense of being involved and heard within the process for the stakeholders. As coordinator or initiator of the participation process, incorporating as many preferences as possible of the stakeholders involved is crucial for the success of the process. Finally, these bilateral meetings do not only have to take place just before the implementation of the process. It could be extremely useful to schedule intermediate meetings with the actors involved to inquire about their views and satisfaction with the process at that time.

b) Reference and ambition framework

Linked to the bilateral meetings, the next driver identified during the interviews is the drafting of a **reference and ambition framework with evaluation criteria.** Within this framework, the ambitions of each partner involved are initially identified, which ensures that these are considered throughout the process. It is important that these ambitions are also translated into several criteria, preferably as objective and measurable as possible, but qualitative criteria are also feasible. These criteria will serve to evaluate the engagement process. This way, what is possible during the project in terms of execution is defined and unrealistic expectations are avoided. In addition, the evaluation framework can be used to review the current situation at intermediate bilateral moments. In this manner, the stakeholder's input and the incorporation of the predetermined expectations by the coordinator or initiator are evaluated. The process can possibly be adjusted to meet certain needs of involved actors based on the intermediate evaluation moments.

c) Scenario thinking

A final driver that clearly emerged is the use of **evidence-based scenario thinking.** Given a participatory process consists of a collaboration between stakeholders from numerous fields, each with their own expertise, the interests, needs, desires and expectations of the stakeholders can vary widely. Certainly, for long-term based visions or complex projects, aligning these preferences is a difficult task. The key in implementing a participatory

process that addresses these significant strategic issues is ensuring that every opinion or perspective is considered equal. Each stakeholder will have an alternative perspective on what their ideal scenario looks like. By starting to explore each possible alternative and checking feasibility based on science and capabilities of the project, each stakeholder's perspective is considered equally valuable. This prevents internal conflict and substantiates the choices the project or initiative will ultimately make.

3.3.2. Practical tools for successful participation

In addition to the identified drivers of participation listed above, the interviews also revealed that several details can be of great value for the successful implementation of an engagement process. These practical tools serve to support the best practices and the drivers (see 3.3.1).

The first tool is to **appoint a neutral facilitator, moderator or coordinator** of the engagement process. Given that an engagement process consists of bringing together stakeholders from different sectors, each with different interests and resources, a neutral actor who keeps the process balanced is useful to avoid conflict and keep the process moving forward. Interviewees also indicated that such an actor or organisation ensures that the workload of the project or initiative can be reduced for the involved stakeholders. Supposedly, a facilitator takes care of preparations for meetings and events, drafts reports and takes care of communication. A facilitator may also be responsible for conducting any bilateral meetings to establish the evaluation framework.

A second practical tool cited in the interviews is **including technical expertise within the stakeholder network** with which the project or initiative is executed. This in-house expertise primarily ensures that the project's choices will be based on scientific and technical knowledge. However, it also increases the credibility of the project, both internally and externally. Decisions taken during project implementation will be more easily accepted and supported by both project partners and society if the technical aspects are presented in a clear and understandable way.

The next tool that can enhance the success rate of a participatory process is a **tailor-made communication plan** based on the stakeholder mapping. As illustrated in section 2.1.3, certain stakeholders will be engaged differently based on the executed stakeholder assessment. Ideally, a communication strategy is determined according to these different engagement strategies. Given that each stakeholder (group) has its specific needs and interests, an adapted communication can respond to these more effectively than a uniform approach. This creates extra involvement as the stakeholders are offered a process that meets the expectations they mapped out within the bilateral meetings, which ultimately also leads to increased ownership.

A final tool discussed during several interviews was the **limited and targeted use of broad online meetings**. The interviewees indicated that this type of meeting is not recommended when higher levels of engagement (involvement, collaboration and co-creation) are applied and bigger groups are brought together. Only for informing stakeholders, it was mentioned that an online meeting could be a suitable tool because more insight can be shared than more static communicative concepts such as a newsletter or a website.

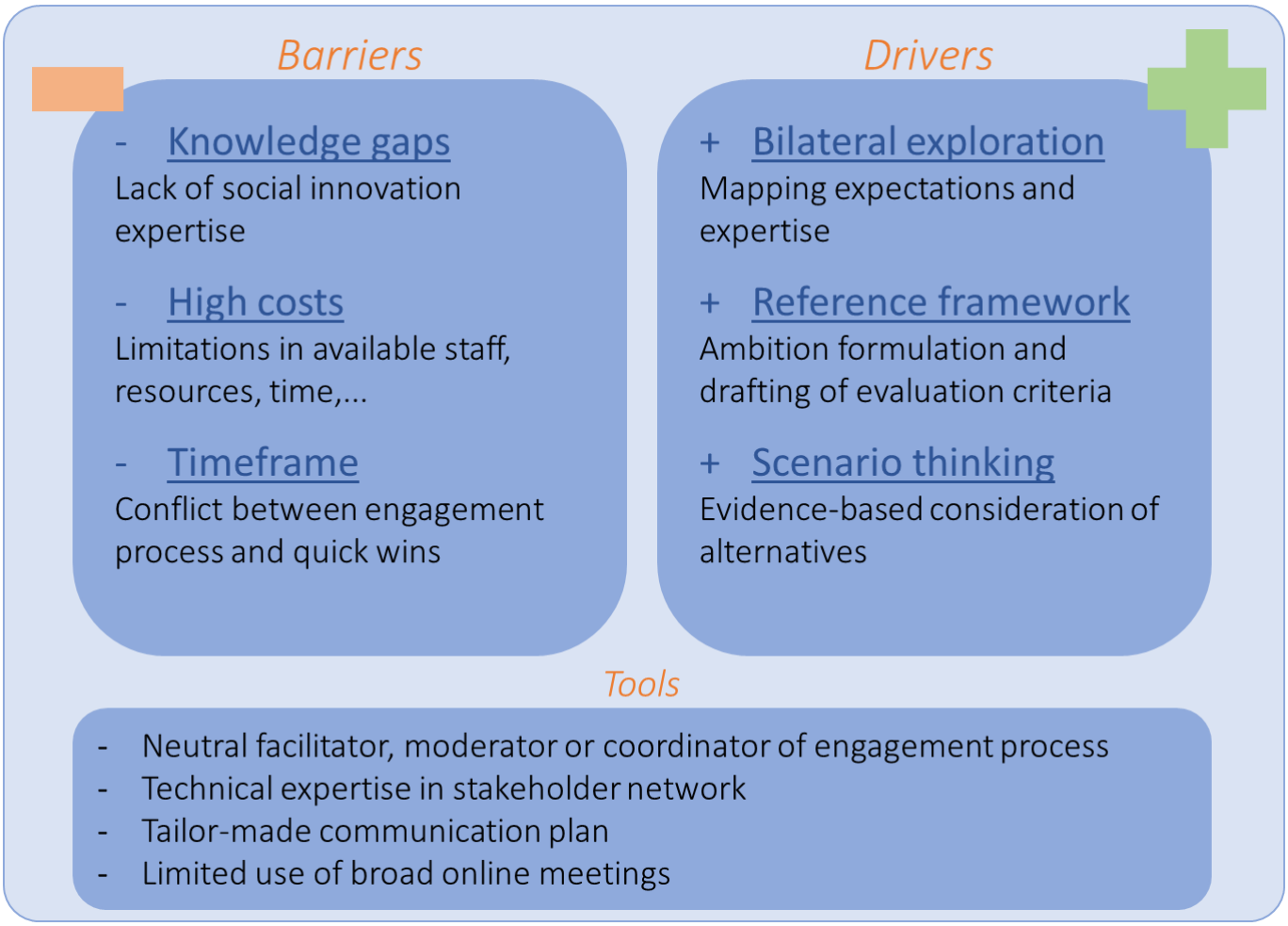

Figure 13: Overview of expert interviews' key highlights

4. Part III: Blueprint for profound participation

The expert interviews revealed insights on the most common experiences, best practices and barriers of participative processes within a coastal context. These insights will be the breeding ground for developing an engagement blueprint that considers the participatory needs of sustainability transitions in the Blue Economy.

For the purpose of this assessment, the following definitions are used:

Stakeholder assessment: The estimation of the potential importance of a stakeholder in the context of a certain project or initiative. The engagement strategy will be determined based on this assessment. This exercise consists of a stakeholder identification, a stakeholder mapping and an engagement planning.

Stakeholder identification: The listing of all stakeholders that seem relevant to be involved in a certain project or initiative. This will be done before the implementation of a participatory process, yet additions can be made during the process.

Stakeholder engagement continuum: The compilation of stakeholder data established during the stakeholder identification that will be used to establish the engagement strategy as part of a BLUE BALANCE use case roll-out.

Stakeholder mapping: During stakeholder mapping, the significance of a particular stakeholder within the context of a particular project or initiative is determined on the dimensions of potential influence and expertise. Based on the values of the two dimensions, stakeholders are categorised into four quadrants that determine their involvement within the project.

The following sections propose a (semi-)structured approach in starting up and designing an engagement process. This approach consists of three overarching phases: preparation, stakeholder assessment and implementation (see figure 14). It is important to note that the following methodology applies to social innovations. A participatory process will always be subject to evolutions related to the social context, and therefore dynamic, evolving and unpredictable.

Given the societal context in which these applications take place, the recommendations are no exact science but rather practical and deployable guidelines. As a result, the proposed chronology will never be exactly the same, and different steps will be performed interchangeably. As a participatory planner, it is therefore important to be prepared for this and take this constantly changing context into account when designing the process.

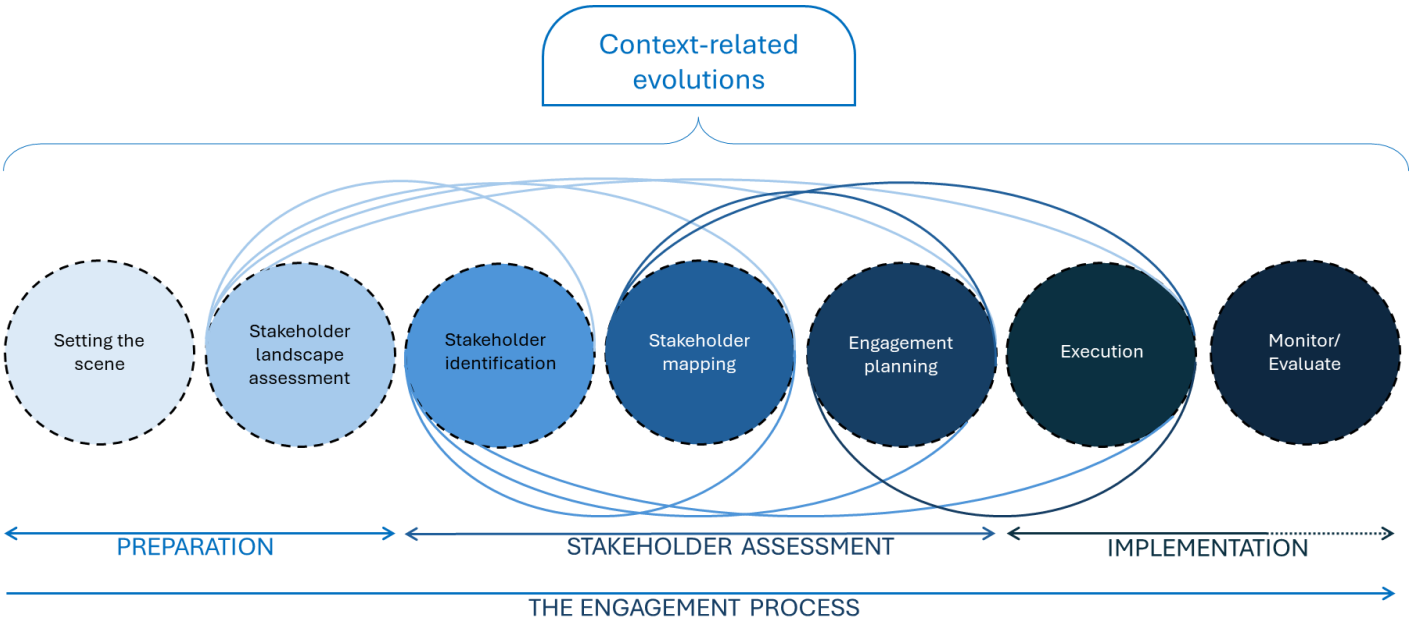

Figure 14: Blueprint for participatory processes

4.1. Stepping stone 1: Setting the participatory scene

The context of a project or initiative in which a participatory process takes place will determine the boundaries of this process. The broader framework of this initiative or process will come with certain resources and limitations, and possibly with a timeframe. It is therefore necessary to formulate a clear definition of both the objectives of the broad initiative and the participatory process that supports it during the implementation or execution. Given that this is the starting point of the participatory part, it may be an opportunity to appoint an independent entity or person as moderator, facilitator or coordinator. Especially for trajectories with a higher level of engagement, it is recommended to appoint such a role, as a moderator will be appointed with a broad knowledge of participatory practices. The moderator is also already able to set up inspiring bilateral exploratory meetings with stakeholders who seem relevant to the project. Reference and/or evaluation frameworks can already be drawn up during these discussions to monitor the participatory process.

4.2. Stepping stone 2: Participatory landscape assessment

The key dimensions or characteristics of a stakeholder landscape will have an inherent impact on the planning, implementation and execution of a project or initiative. Thus, understanding what influences and drives those who can shape and those who are affected by a project and what gives shape to the engagement process will provide insights for the planners and practitioners of these processes (Aaltonen & Kujala, 2016). By assessing what possible influences will shape and determine the design of the participation process, planners can estimate what the potential pitfalls and opportunities will be. This proactive approach increases the chances of achieving the project's intended objectives. An important aspect to consider here, is that the formulation of certain factors before an engagement process is associated with the application of a higher level of commitment. This applies in particular to the factor's user needs, organiser needs and innovative culture.

The next paragraphs highlight the factors that will influence the design and implementation of participatory process, and how they can be filled in. An overview of the influencing factors will be listed in Annex VII.

4.2.1. Needs of organiser

A participatory approach or stakeholder engagement trajectory will take a certain form based on the needs of the entity that draws it up. This implies that the organising actor's objectives will co-define the participatory process. In line with this, the level of engagement (see 4.1.3) applied will be related to the needs or objectives of a participatory approach. According to Kujala et al. (2022) model, the needs of the organising entity can be categorised within three major clusters, namely:

- Strategic: The strategic needs of an organisation in a stakeholder engagement context emphasize goal-oriented approaches. The emphasis of strategic engagement approaches is on benefit improvement and risk reduction or management.
- Pragmatic: The organising actor seeks to establish functional stakeholder relationships with the intention of organisational or societal change. The emphasis here will be on the inclusion of all required stakeholders, conflict resolution and building consensus.
- Moral: The moral needs of an organising entity of engagament processes refers to the ambition to reach the most morally desirable impacts for the involved stakeholders. Because of this, the focus of the organiser is on legitimacy, trust and fairness of the process. Moral needs of the user usually result in stakeholder empowerment.

The intensity of the applied engagement process will increase as the objective or the need of the organising actor progresses from strategic to moral. This intensity can be translated into the level of engagement applied in a participatory initiative. According to Pretty (1995) the objective of each different level of engagement is different:

- Inform: There's a need for passive participation in which an initiative wants to share information towards the affected stakeholders.
- Consult: The organising entity wishes to extract information or data from the stakeholders involved and/or the general public.
- Involve: The initiative requires certain actions from stakeholders to support and promote the implementing actions, which calls for more active participation.
- Collaborate: The organising entity wishes to have certain roles filled by the stakeholders. These can fill these parts of the implementation process themselves to ensure their maximum input.
- Empower/co-create: The initiative wishes the decision-making within their process to be carried out by the stakeholders involved. In this way, the organising entity wants to provide full ownership of the project to the stakeholders.

The objectives of a participatory process established by Kujala et al. (2022) are linkable to the levels of participation established by Pretty (1995). In Table 2, the needs of the organising actor are linked to the level of engagement appropriate to their ambition. The higher the ambition of the participatory process, the more intensive in terms of engagement the process will be.

Table 1: Organiser needs (Kujala et al., 2022) linked to levels of engagement (Pretty, 1995)

Organiser need	Aim(s)	Level of engagament
Strategic	Benefit improvement Risk reduction	Inform - Consult
Pragmatic	Conflict resolution Consensus building	Consult- Involve – Collaborate
Moral	Legitimacy building Trust building Stakeholder empowerment	Collaborate – Empower/Co-create

4.2.2. Needs of user(s)

Stakeholders in participatory processes will engage for a variety of reasons. These can be very specific, but can be summarised within three broad needs. These correspond to the model of stakeholder relationships identified by Grunig & Hunt (1984):

- **Information**: Stakeholders want information about the project's intentions, decisions and results. This will require clear and timely communication about the progress and the results of the project.
- **Satisfaction**: Stakeholders want to be satisfied with the project's processes, and results. They need to see that their expectations and requirements are met or exceeded and that they receive value from the solution. For this, it has to be clear how to provide feedback and how it will be incorporated within the implementation of a project or initiative.
- **Involvement**: Stakeholders want to take actively part within the project's activities to varying degrees depending on their influence and interest. To this end, they could be consulted, involved, or empowered to participate in decision-making, problem-solving, and solution-building. Based on the level of engagement, they will be enabled to help shape the final outcome of the project.

4.2.3. Societal-driven factors

There's a clear relationship between the values the general public attributes to the natural environment and sustainable behaviour (Schmid et al., 2024). A person's actions and decisions often reflect a person's relationship with nature and the environment (Engel et al., 2020). As a result, it may be useful to estimate which group of values are most prominent in the context of a certain project or initiative. As values can be defined as *'desirable goals, varying in importance, that serve as guiding principles in people's lives'* (Steg & De Groot, 2012), which indicates that it is implied that values remain stable over time. This makes the group of values that is strongest within a societal context relevant to estimate the basis of possible environmental behaviour (Steg & De Groot, 2012). Engel et al. (2020) listed the primary groups of environmental values, which are the following:

- **Intrinsic:** These values are assigned for what a subject is and not for what it provides people. The intrinsic values of the natural environment reflect an environmental ideology in which nature has a value in itself independent of human benefit or needs.

- **Instrumental:** The values attributed to a subject as a means to a particular end. The emphasis is on the benefits the subject can provide to the actors involved.
- **Relational:** Relational values reflect preferences arising from people's relationship with their environment and their responsibility towards it. Relational values include expressions of care and concern for the environment, as well as for other people. Care reflects a sense of protection or concern and has been examined in terms of motivations that influence moral beliefs and behaviours.

4.2.4. Policy-driven factors

The implementation of a project or initiative takes place within a certain policy framework. In particular, projects implemented through government or industry funds take place within a thematic policy framework with associated objectives. Identifying these themes in advance ensures that they can be clearly communicated to the stakeholders involved. Examples could include: sustainability, economic development, economic feasibility, …

4.2.5. Innovative culture

Public participation is necessary in order to enhance sustainability transitions. To support these transitions, they should be accompanied by numerous social and technological innovations. This shows there's a clear relationship between participative approaches and innovation (Park et al., 2016) and that organizations can enhance innovation by empowering the affected stakeholders (Denison et al., 2013). Thus, the innovative culture that is prevalent within the context in which a participatory process takes place will have an impact on the organisation of this process. Given this influence, it is useful to examine the form the innovative culture takes. Denison et al. (2013) defined three different styles of innovative cultures, which are translated into terms of stakeholder engagement:

- **Vision-driven:** The emphasis here is on innovation from a long-term vision. As a result, there is more need for exact expertise and a more focused involvement of stakeholders in developing the vision. These innovations explore future possibilities and produce more sustainable alternatives.
- **Involvement-driven:** The approach here focuses on involving and engaging the necessary stakeholders. The aim is to develop new ideas through teamwork, collaboration, co-creation and empowerment. The stakeholders determine the shape and direction of the innovation process.
- **User-driven:** External users and customer are the inspiration for new concepts, initiatives, products, services etc. New ideas, concepts, services etc. are inspired by the needs, ideas and opinions of the existing and potential external users. There will be a clear bottom-up flow of information through all levels of engagement.

4.2.6. Sector-driven factors

Networks are becoming increasingly important within research and innovation policy at both national and supranational levels as research in emerging technological fields (as sustainability) does not occur in isolation. (Cunningham & Ramlogan, 2016). Research and innovation are often the product of interacting organisations, individuals and/or networks (Van Der Valk et al., 2011). This shows the growing importance of knowledge sharing and collaboration within networks.

Given the strength of these structures in developing innovations, they are actively supported by policy, for instance through public-private (cross)-sectoral partnerships (Van Der Valk et al., 2011). The presence of these (sectoral) networks will have an impact on the design of a participatory process. The existence of these networks will influence the design of a participatory process, making the identification of existing structures and networks an essential part of the planning process.

4.3. Stepping stone 3: Stakeholder identification

The stakeholder assessment starts with the identification of the most relevant stakeholders. There are several approaches for identifying the stakeholders. Depending on where the participatory process takes place in the wider project, a consortium may or may not have been formed. If so, the moderator can consult within this consortium to identify the relevant stakeholders. If the consortium is not yet formed, the moderator can identify the most relevant stakeholders in consultation with the steering organisation. These can then proceed to complete the identification to arrive at the most convenient stakeholder list possible. The identification process will be an iterative process, which implies that new stakeholders may arise during further steps. It will be crucial to monitor and update the stakeholder list throughout the entire participatory process. It is also important to define a clear scope of the identification, which consists of clearly defining where the boundaries of the exercise are set. Lastly, there should be attention to ensure inclusivity, meaning that a diverse range of stakeholders from all possible stakeholder groups is identified.

Within BLUE BALANCE, a stakeholder identification is carried out, for which a stakeholder engagement continuum is established. This dynamic continuum will form a crucial aspect for the use cases, as it can be seen as a repository of relevant stakeholder information. It will be highly relevant and usable after the BLUE BALANCE project, for further projects dealing with social innovation within the sustainability transition.

Selecting and listing the stakeholders in the engagement continuum was a multi-stage process (1st August 2023 – 31st August 2023). The starting point for this exercise was the internal contact list of the Flanders Marine Institute (VLIZ) for the publication of the Compendium for Coast and Sea (Dauwe et al., 2022) and KustInzicht (Dauwe et al., 2019). This comprehensive list consists of all authors and other contributors who were at some point involved in one or more products of the Compendium for Coast and Sea. The list of stakeholders was further enriched through expert input from the Policy and Innovation division of VLIZ, the Province of West-Flanders and the BLUE BALANCE Consortium to assure a complete and diverse stakeholder landscape for coastal and sustainability initiatives. Lastly, we added all project coordinators of the projects that were identified in the Coastal Backbone (see 2.2). This list is for internal use only. It will only be available for consultation by the BLUE BALANCE Consortium and, on request, by members of the Advisory Board. Its composition can be found in Annex VIII.

Besides listing the stakeholders and contact information, some basic information was completed in the stakeholder list as preparation for the continuum:

- **Organisation:** the employer of the listed stakeholder.
- **Function:** The job title that the listed stakeholder carries.
- **Expertise:** Thematic focus of the listed stakeholder.

- **Link to the Coastal Backbone:** The listed stakeholder was involved in projects that were identified during Task 2b.1 of BLUE BALANCE: The foundations for sustainability transition.
- **Stakeholder group:** Based on the Quintuple helix innovation model (Carayannis et al., 2012), each of the listed stakeholders is assigned to one of the following stakeholder groups: academia, industry, government, civil society, natural environment.
- **BLUE BALANCE theme:** The project stresses three thematic focus points: coastal protection, blue food and coastal tourism. For each stakeholder in the continuum will be indiciated if their professional activities have a connection to one or more of these themes.

4.4. Stepping stone 4: Stakeholder mapping

The stakeholder inventory created through the identification is the starting point for the stakeholder mapping exercise. Here, the possible importance and influence of the listed stakeholders will be assessed. To assess the possible influence of the listed stakeholders on a project or case, identifying them will not suffice. The specific dynamics of the stakeholders' attitudes towards the project or case will be analysed based on the power/interest matrix by Johnson et al. (2020) and the co-creation strategy by Iglesias et al. (2020) described in 1.4.1. The general flow of this stakeholder assessment is displayed in figure 15.

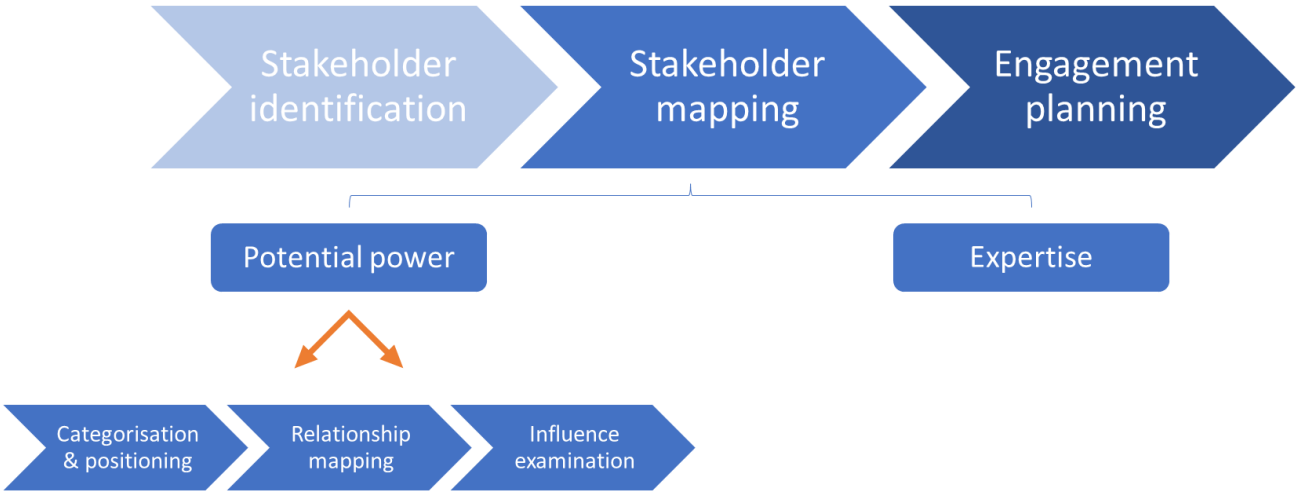

Figure 15: General flow of the stakeholder assessment

The stakeholder assessment consists of the operationalisation of the dimensions of power and expertise, allowing stakeholders to be placed within the power/expertise matrix. Based on the position of the stakeholders in the matrix, it's possible to determine how they will be involved within a participatory project or initiative.

a) Power

To start the power assessment, the same research question is always asked. Within the context of the BLUE BALANCE use cases, this will be the following: *'who is able to influence BLUE BALANCE use case X?'.* Based on Serrat (2017), applying SNA in order to measure the actors influence involves the following steps:

1. **Identification:** The individuals, groups, organisations and other parties that should be involved in the project are identified and listed. Basic information about the stakeholders can be added to this list (working field, contact information, …).

2. **Categorisation and positioning:** The listed stakeholders are clustered within categories. Which categories are used here depends on the project and is determined by the stakeholders themselves (e.g. ethnic groups, function, …). Each category will receive a certain color (see figure 16). Within the BLUE BALANCE assessment, this categorisation will be done based on the stakeholder groups of the involved actors. After categorising, the actors should be placed on the network map. This becomes the overview of the connections between stakeholders to start determining their potential influence. The actors that will be central to answering the research question will be placed in a more central position. The estimation of who will be important within the process is carried out by the facilitator or in consultation with the stakeholders involved in the implementation of the project.

3. **Relationship mapping:** Here the relationships between the different actors are indicated on the network map. Of course, there are many types of relationships (e.g. conflict, support, formal, informal, informational, material, …), but this assessment does not focus on this diversity. Also, this assessment will not distinguish between weak and stronger relationships. These relationships can be unilateral as well as reciprocal, which will be indicated with a single or double arrow on the network map.

4. **Examine influence:** To estimate how influential an actor in the network may possibly be, the number of connections one actor has is examined. The more connections an actor has, the bigger the node becomes on the network map (see figure 16). Based on this amount, the actors will be divided into four different groups. These will be ranked as follows: *high influence – moderate influence – low influence – no influence.* To make this division, it is possible to look at all actors and their number of connections. These numbers can be listed according to size and divided into four quadrants that will correspond to the four categories.

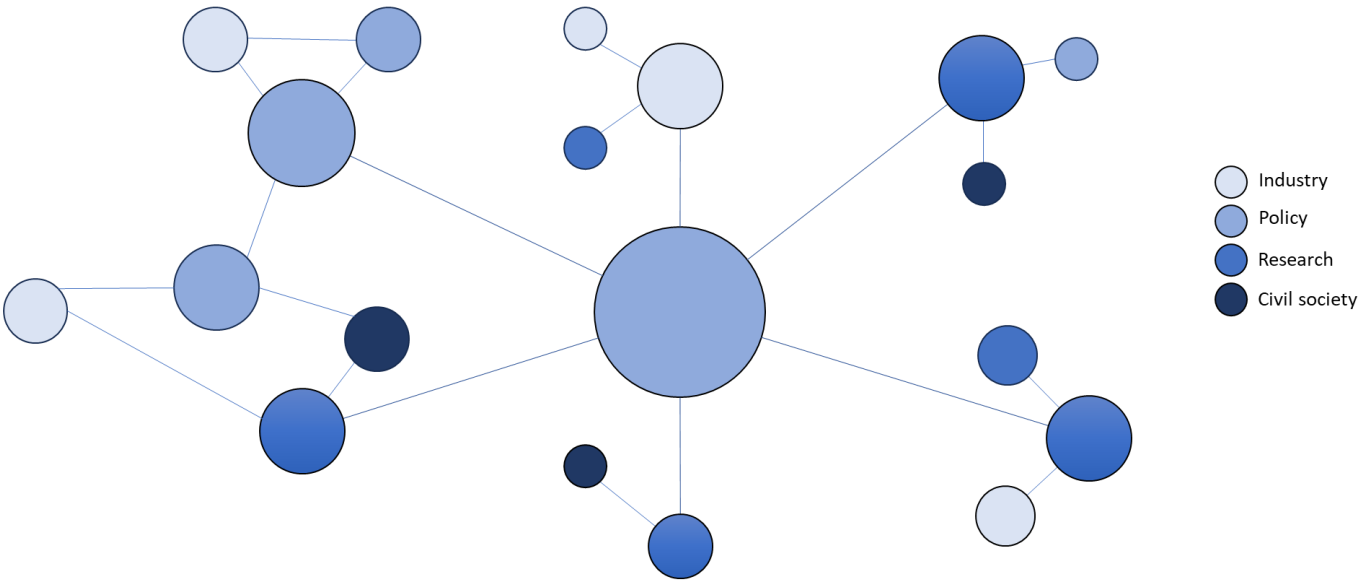

Figure 16: Basic example of network map

b) Expertise

The second dimension that requires operationalisation within stakeholder assessment is *expertise*. This will be determined through the basic information already listed during stakeholder identification. If there is a link between the described expertise of the stakeholder and the subject of BLUE BALANCE use case, the expertise will be evaluated as high. The independent facilitator, possibly in consultation with the implementing stakeholders, will determine how the involved actors will be arranged according to their expertise.

4.5. Stepping stone 5: Engagement planning

Based on the value the involved stakeholders in the use case received on the above dimensions, it can be determined how they will be engaged. The possible combinations of values are divided into four quadrants, determining a particular engagement strategy for each stakeholder (see figure 17). A timeline should be drawn up in which engagement moments are scheduled on a frequent basis. Deadlines should also be set for certain documents or products to be submitted. A strategy should be worked out for each group of engagement partners with set engagement moments. These will correspond to the target level of engagement assigned to the stakeholder group. This will also require a tailor-made communication plan.

The following types of strategic partners are identified using the above dimensions:

- Non-strategic partners: low influence, low expertise

This group of stakeholders are considered non-strategic since they won't be actively involved in the implementation of a certain project or initiative. This does not imply that there should be no engagement with these actors. Ideally, this group of stakeholders should be informed before the project or initiative. During the project, it is important to further inform this group at regular intervals. This group should also be permanently monitored. This way, any changing influence of certain actors in this group is considered. Here, it's important to note that individual citizens will generally be assessed as non-strategic partners since their potential power and expertise is expected to be lower than expert stakeholders. Yet, given the crucial role citizens play in a democratic system and societal support, their importance should not be neglected; Therefore, it's recommended to monitor and evaluate the attributed role of citizens within the participatory process.

- Ideation partners: low influence, high expertise

This group is seen as very valuable because of their specific knowledge and expertise. This knowledge should therefore be actively sourced through consultation during crucial moments of the project. Through this consultation, the network of the group of actors can also widen. This capacity-building increases their influence and their potential involvement within the project. Lastly, these stakeholders should also be informed about the project on a regular basis.

- Communication partners: high influence, low expertise

The high influence of these actors implies that they have a broad network. As a result, these actors will be activated through advocacy as ambassadors of the project or initiative. This requires that this group be actively involved

within the important moments of the project. Throughout the project, this involvement may further evolve into a more intensive collaboration.

- **Co-creation partners:** high influence, high expertise

With this group of stakeholders, efforts will be made to build a formal partnership. This group will be given the opportunity to engage in co-creation within the project with a goal of mutual reinforcement. Engaging this group as a co-creation community means that the stakeholders involved can shape the decision-making and implementation process of the project. In the end, the planned engagement processes must be tailored to their needs.

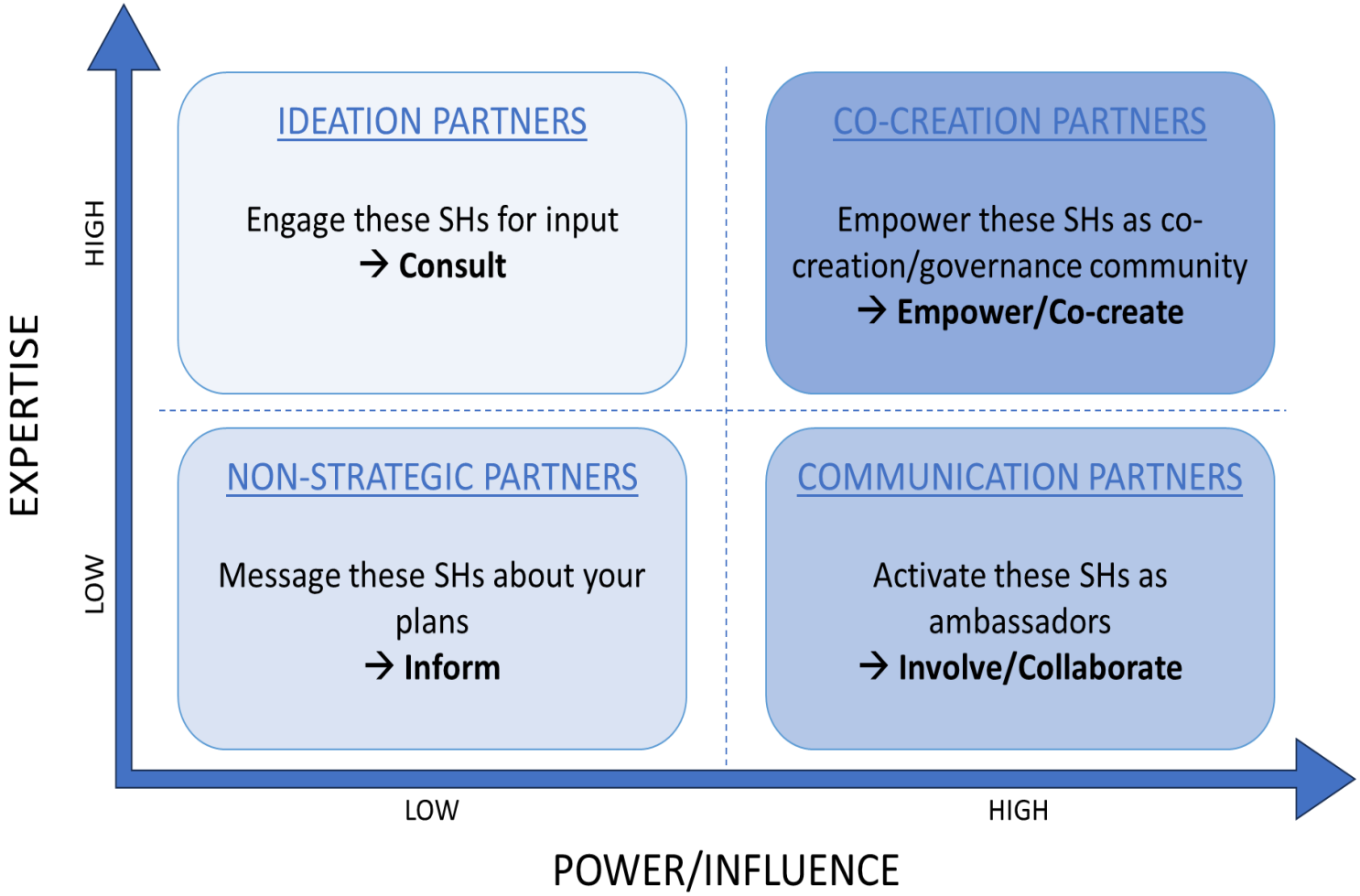

Figure 17: BLUE BALANCE stakeholder assessment method (based on Johnson et al. (2020) and Iglesias et al. (2020))

4.6. Stepping stone 6: Execution of the participatory activities

The execution should happen according to the established timeline, but should take into account the characteristics of the societal context in which the participatory takes place. This particular context is continuously changing, requiring planners and implementers of participatory processes to be flexible and open to change. This shows that a participatory process will never be an exact science, so there will never be a 'best' design, given that each context has different characteristics.

4.7. Stepping stone 7: Monitoring and evaluation

Finally, it is recommended to monitor and evaluate the engagement process on a regular basis. This can be carried out by the moderator based on the objectives and the stakeholder landscape assessment, but can also be done by bilaterally checking the reference and evaluation criteria that were drawn up beforehand. Based on the bilateral discussions, a better view is given on the satisfaction of the stakeholders involved and how the engagement process can possibly be adjusted to meet their needs even better.

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6. Annexes

6.1. Annex I: BLUE BALANCE sustainability framework

ENVIRONMENTAL OBJECTIVE	LINKED SDG	LINKED SDG TARGET
EO1) CLIMATE CHANGE MITIGATION	SDG 11 – Sustainable Cities and Communities	Target 11.b: By 2020, substantially increase the number of cities and human settlements adopting and implementing integrated policies and plans towards inclusion, resource efficiency, **mitigation and adaptation to climate change**, (…)
	SDG 13 – Climate Action	Target 13.3: Improve education, awareness-raising and human and institutional capacity on **climate change mitigation**, adaptation, impact reduction and early warning.
		Target 13.a: (…) by 2020 from all sources to address the needs of developing countries in the context of meaningful **mitigation actions** and transparency on implementation and fully operationalize the Green Climate Fund through its capitalization as soon as possible.
EO2) CLIMATE CHANGE ADAPTATION	SDG 2 – Zero Hunger	Target 2.4: By 2030, ensure sustainable food production (…), **that strengthen capacity for adaptation to climate change**, extreme weather, drought, flooding, and other disasters and that progressively improve land and soil quality.
	SDG 7 – Affordable and Clean Energy	Target 7.1: By 2030, ensure universal access to **affordable, reliable and modern energy services**
		Target 7.2: By 2030, **increase substantially the share of renewable energy** in the global energy mix
		Target 7.3: By 2030, **double the global rate** of improvement **in energy efficiency**
	SDG 11 – Sustainable Cities and Communities	Target 11.b: By 2020, substantially increase (…) integrated policies and plans towards inclusion, resource efficiency, mitigation and **adaptation to climate change**, (…)
	SDG 13 – Climate Action	Target 13.1: Strengthen resilience and **adaptive** capacity to climate-related hazards and natural disasters in all countries.
		Target 13.3: Improve education, awareness-raising and human and institutional capacity on climate change mitigation, **adaptation**, impact reduction and early warning.

ENVIRONMENTAL OBJECTIVE	LINKED SDG	LINKED SDG TARGET
EO3) SUSTAINABLE USE AND PROTECTION OF WATER AND MARINE RESOURCES	SDG 6 – Clean Water and Sanitation	Target 6.4: By 2030, substantially **increase water-use efficiency across all sectors and ensure sustainable withdrawals and supply of freshwater** to address water scarcity and substantially reduce the number of people suffering from water scarcity.
	SDG 14 – Life Below Water	Target 14.1: By 2025, **prevent and significantly reduce marine pollution of all kinds**, in particular from land-based activities, including marine debris and nutrient pollution. Target 14.2: By 2020, sustainably manage and **protect marine and coastal ecosystems to avoid significant adverse impacts** (…) Target 14.3: **Minimize and address the impacts of ocean acidification**, including through enhanced scientific cooperation at all levels. Target 14.4: By 2020, effectively **regulate harvesting and end overfishing, illegal, unreported and unregulated fishing and destructive fishing practices** (…) in order to **restore fish stocks in the shortest time feasible**, (…). Target 14.5: By 2020, **conserve at least 10 per cent of coastal and marine areas**, (…). Target 14.6: By 2020, **prohibit** certain forms of **fisheries subsidies which contribute to overcapacity and overfishing, eliminate subsidies that contribute to illegal, unreported and unregulated fishing and refrain from introducing new such subsidies**, (…). Target 14.7: By 2030, **increase the economic benefits** to Small Island developing States and least developed countries **from the sustainable use of marine resources** (…).
EO4) TRANSITION TO A CIRCULAR ECONOMY	SDG 8 – Decent Work and Economic Growth	Target 8.4: Improve progressively, through 2030, global resource efficiency in consumption and production and endeavour to **decouple economic growth from environmental degradation** (…).
	SDG 9 – Industry, Innovation, and Infrastructure	Target 9.4: By 2030, **upgrade infrastructure and retrofit industries to make them sustainable**, **with increased resource-use efficiency and greater adoption of clean and environmentally sound technologies and industrial processes**, (…).
EO5) POLLUTION PREVENTION AND CONTROL	SDG 6 – Clean Water and Sanitation	Target 6.3: By 2030, improve water quality **achieve (…)**, halving the proportion of untreated wastewater, and substantially increasing recycling and safe reuse globally.
	SDG 12 – Responsible Consumption and Production	Target 12.4: By 2020, achieve the environmentally **sound management of chemicals and all wastes throughout their life cycle**, (…).

ENVIRONMENTAL OBJECTIVE	LINKED SDG	LINKED SDG TARGET
EO6) PROTECTION AND RESTORATION OF BIODIVERSITY AND ECOSYSTEMS	SDG 2 – Zero Hunger	Target 2.4: By 2030, ensure sustainable food production systems and implement resilient agricultural practices that increase productivity and production, that **help maintain ecosystems**, (…).
	SDG 6 – Clean Water and Sanitation	Target 6.6: By 2020, **protect and restore water-related ecosystems**, including mountains, forests, wetlands, rivers, aquifers and lakes.
	SDG 15 – Life on Land	Target 15.1: By 2020**, ensure the conservation, restoration and sustainable use of terrestrial and inland freshwater ecosystems** and their services, (…). Target 15.4: By 2030, **ensure the conservation of mountain ecosystems**, including their biodiversity, (…). Target 15.5: Take urgent and **significant action to reduce the degradation of natural habitats, halt the loss of biodiversity** (…). Target 15.8: By 2020, introduce **measures to prevent the introduction and significantly reduce the impact of invasive alien species on land and water ecosystems** and control or eradicate the priority species. Target 15.9: By 2020, **integrate ecosystem and biodiversity values into national and local planning**, development processes, poverty reduction strategies and accounts. Target 15.a: Mobilize and significantly **increase financial resources from all sources to conserve and sustainably use biodiversity and ecosystems**.

6.2. Annex II: BLUE BALANCE participatory process matrix (non-exhaustive) – The Coastal Backbone

a) project matrix

Name	Type	Administrative/ governmental level	Starting Year	Thematic cluster	Topic label	Sustainability level	Link coastal area	Participatory approach	Citizen involvement	Score (level of interaction) - IAP2 (Bammer, 2019)
4shore	Project	Flanders	2013	Environmental Quality & Ecosystem Services	Environmental Monitoring	High Sustainability	Yes	No	No	0 - No participation
ACCESS	Project	European (ERDF)	2019	Renewable Energy	Onshore Renewable Energy	High Sustainability	No	No	No	0 - No participation
AlgaeDemo	Project	European (EMFF)	2019	Blue Food	Aquaculture	High Sustainability	Yes	No	No	0 - No participation
AQUA-LIT	Project	European (EMFF)	2019	Blue Food	Aquaculture	High Sustainability	Yes	Yes	No	3 - Involve
Aquavlan²	Project	European (ERDF)	2016	Blue Food	Aquaculture	High Sustainability	Yes	Yes	No	2 - Consult
ARGONAUTS	Project	Flanders	2013	Environmental Quality & Ecosystem Services	Environmental Monitoring	High Sustainability	Yes	No	No	0 - No participation
AtlantOS	Project	European (H2020)	2015	Environmental Quality & Ecosystem Services	Environmental Monitoring	High Sustainability	Yes	Yes	No	2 - Consult
BIOGEARS	Project	European (EMFF)	2019	Blue Food	Aquaculture	High Sustainability	Yes	Yes	No	2 - Consult
Blue Gate	Project	Flanders	2010	Blue Valley	Blue Industry Park	High Sustainability	No	Yes	Collective	2 - Consult
BlueMarine³.com	Project	Flanders	2019	Blue Food	Aquaculture	High Sustainability	Yes	No	No	0 - No participation
Building With Nature	Project	European (ERDF)	2015	Climate Change Adaptation	Nature Based Solutions	High Sustainability	Yes	Yes	Collective	2 - Consult
CC2150	Project	European (ERDF)	2011	Climate Change Adaptation	Coastal protection	High Sustainability	Yes	Yes	Collective	1 - Inform
Co-Adapt	Project	European (ERDF)	2019	Climate Change Adaptation	Nature Based Solutions	High Sustainability	No	Yes	Collective	5 - Empower/Co-creation
Coastal	Project	European (H2020)	2018	Spatial Planning & Policy	Policy Strategy	High Sustainability	Yes	Yes	Collective	5 - Empower/Co-creation

BLUE BALANCE

Name	Type	Administrative/ governmental level	Starting Year	Thematic cluster	Topic label	Sustainability level	Link coastal area	Participatory approach	Citizen involvement	Score (level of interaction) - IAP2 (Bammer, 2019)
CoastBusters 2.0	Project	Flanders	2020	Climate Change Adaptation	Coastal protection	High Sustainability	Yes	No	No	0 - No participation
Coastsnap Belgium	Project	International	2020	Literacy & Citizen Science	Citizen Science	High Sustainability	Yes	Yes	Individual	2 - Consult
COBEN	Project	European (ERDF)	2016	Renewable Energy	Onshore Renewable Energy	High Sustainability	No	Yes	Individual	2 - Consult
COLUMBUS	Project	European (H2020)	2015	Blue Valley	Sustainable Blue Economy	Medium Sustainability	Yes	Yes	Individual	2 - Consult
CORDEX.be	Project	National	2014	Climate Change Adaptation	Climate Services	High Sustainability	Yes	No	No	0 - No participation
CPECA	Project	Flanders	2016	Sustainable Ports & Transportation	Harbour Infrastructure	Low Sustainability	No	Yes	Collective	3 - Involve
CREST	Project	Flanders	2015	Climate Change Adaptation	Coastal protection	High Sustainability	Yes	Yes	Collective	2 - Consult
Curieuzeneuzen	Project	Flanders	2016	Literacy & Citizen Science	Citizen Science	High Sustainability	No	Yes	Individual	3 - Involve
D4PV	Project	Flanders	2019	Climate Change Adaptation	Coastal protection	High Sustainability	Yes	Yes	Collective	5 - Empower/Co-creation
De Grote Invitatie Oostende	Project	City	2021	Spatial Planning & Policy	Urban Planning	Medium Sustainability	Yes	Yes	Individual	5 - Empower/Co-creation
De grote verbinding	Project	Flanders	2016	Sustainable Ports & Transportation	Mainland Infrastructure	High Sustainability	No	Yes	Individual	5 - Empower/Co-creation
De Nieuwe Rand	Project	Flanders	2017	Sustainable Ports & Transportation	Mainland Infrastructure	High Sustainability	No	Yes	Individual	4 - Collaborate
Doorbraakproject blauwe economie regio Middenkust	Project	Provincial	2023	Blue Valley	Sustainable Blue Economy	Low Sustainability	Yes	Yes	No	4 - Collaborate
Dual Ports	Project	European (ERDF)	2015	Sustainable Ports & Transportation	Harbour Infrastructure	High Sustainability	Yes	No	No	0 - No participation
Duinkerke	Project	National	2020	Renewable Energy	Offshore Renewable Energy	High Sustainability	Yes	Yes	Individual	2 - Consult
EMPOWER 2.0	Project	European (ERDF)	2019	Renewable Energy	Onshore Renewable Energy	High Sustainability	No	Yes	Individual	5 - Empower/Co-creation
eMSP NBSR	Project	European (EMFF)	2021	Spatial Planning & Policy	MSP	High Sustainability	Yes	Yes	No	3 - Involve
ENDURE	Project	European (ERDF)	2017	Climate Change Adaptation	Coastal protection	High Sustainability	Yes	Yes	Collective	1 - Inform

BLUE BALANCE

Name	Type	Administrative/ governmental level	Starting Year	Thematic cluster	Topic label	Sustainability level	Link coastal area	Participatory approach	Citizen involvement	Score (level of interaction) - IAP2 (Bammer, 2019)
Energielandschappen 2.0 Oost-Vlaanderen	Project	Flanders	2015	Renewable Energy	Onshore Renewable Energy	High Sustainability	No	Yes	Individual	5 - Empower/Co-creation
Eureka	Project	European (ERDF)	2019	Literacy & Citizen Science	Ocean Literacy	Low Sustainability	No	Yes	Individual	1 - Inform
EUROCYCLO	Project	European (ERDF)	2017	Tourism	Hinterland Tourism	Low Sustainability	Yes	No	No	0 - No participation
FACET	Project	European (ERDF)	2020	Tourism	Hinterland Tourism	High Sustainability	Yes	Yes	Collective	3 - Involve
Fishing for Litter	Project	European (ERDF)	2004	Environmental Quality & Ecosystem Services	Environmental Monitoring	High Sustainability	Yes	Yes	No	3 - Involve
FLANDRE	Project	European	2013	Environmental Quality & Ecosystem Services	Nature Restoration/ Conservation	High Sustainability	Yes	Yes	No	1 - Inform
Foodshift 2030	Project	European (H2020)	2020	Literacy & Citizen Science	Citizen Science	High Sustainability	No	Yes	Individual	5 - Empower/Co-creation
Fresh4C's	Project	European (ERDF)	2019	Environmental Quality & Ecosystem Services	Sustainable Resource Management	High Sustainability	Yes	Yes	Collective	2 - Consult
GAP & GAP2 project	Project	European	2011	Spatial Planning & Policy	Policy Strategy	High Sustainability	Yes	Yes	No	4 - Collaborate
Halve Maan	Project	Flanders	2019	Climate Change Adaptation	Coastal protection	High Sustainability	Yes	No	No	0 - No participation
Ijzer- en HandzameVallei, klimaatbuffer in de Westhoek	Project	Flanders	2021	Environmental Quality & Ecosystem Services	Sustainable Resource Management	High Sustainability	No	Yes	Collective	1 - Inform
Immerse	Project	European (ERDF)	2018	Environmental Quality & Ecosystem Services	Environmental Monitoring	High Sustainability	Yes	Yes	Collective	3 - Involve
INDI67	Project	National	2014	Environmental Quality & Ecosystem Services	Environmental Monitoring	High Sustainability	Yes	No	No	0 - No participation
ISHY	Project	European (ERDF)	2019	Sustainable Ports & Transportation	Harbour Infrastructure	High Sustainability	Yes	No	No	0 - No participation
Kappa-plan	Project	Flanders	2010	Climate Change Adaptation	Nature Based Solutions	High Sustainability	Yes	No	No	0 - No participation
Kustvisie	Project	Flanders	2017	Climate Change Adaptation	Coastal protection	High Sustainability	Yes	Yes	Collective	5 - Empower/Co-creation
LIFE DUNIAS	Project	European	2021	Environmental Quality & Ecosystem Services	Nature Restoration/ Conservation	High Sustainability	Yes	Yes	Individual	1 - Inform
MARBEFES	Project	European (H2020)	2022	Environmental Quality & Ecosystem Services	Environmental Monitoring	High Sustainability	Yes	Yes	No	5 - Empower/Co-creation

BLUE BALANCE

Name	Type	Administrative/ governmental level	Starting Year	Thematic cluster	Topic label	Sustainability level	Link coastal area	Participatory approach	Citizen involvement	Score (level of interaction) - IAP2 (Bammer, 2019)
MariFish	Project	European (ERDF)	2021	Blue Food	Aquaculture	Low Sustainability	Yes	No	No	0 - No participation
Marine mammals	Project	National	2014	Literacy & Citizen Science	Citizen Science	High Sustainability	Yes	Yes	Individual	3 - Involve
Maritiem Onderzoekscentrum	Project	Flanders	2017	Sustainable Ports & Transportation	Harbour Infrastructure	Low Sustainability	Yes	No	No	0 - No participation
Masterplan Coastal Safety	Project	Flanders	2011	Climate Change Adaptation	Coastal protection	High Sustainability	Yes	Yes	Collective	2 - Consult
Metropolitaan Kustlandschap 2100	Project	Flanders	2012	Climate Change Adaptation	Coastal protection	High Sustainability	Yes	Yes	No	4 - Collaborate
MSFD: Public Consultation	Project	National	2021	Spatial Planning & Policy	Policy Strategy	High Sustainability	Yes	Yes	Individual	2 - Consult
MSP I & II	Project	National	2020	Spatial Planning & Policy	MSP	High Sustainability	Yes	Yes	Individual	2 - Consult
Nemo Link	Project	Private investment	2022	Renewable Energy	Onshore Renewable Energy	Low Sustainability	No	Yes	Individual	2 - Consult
Nieuwe Sluis Terneuzen	Project	European	2012	Sustainable Ports & Transportation	Harbour Infrastructure	Low Sustainability	Yes	Yes	Individual	2 - Consult
Noordzeevisie 2050	Project	National	2018	Spatial Planning & Policy	Policy Strategy	High Sustainability	Yes	Yes	Collective	3 - Involve
NorthSEE	Project	European (ERDF)	2016	Spatial Planning & Policy	MSP	High Sustainability	Yes	Yes	No	3 - Involve
Partons 2.0	Project	European (ERDF)	2016	Literacy & Citizen Science	Ocean Literacy	Low Sustainability	No	Yes	Individual	3 - Involve
PECS	Project	European (ERDF)	2017	Sustainable Ports & Transportation	Harbour Infrastructure	High Sustainability	Yes	No	No	0 - No participation
PERSUADE	Project	National	2017	Blue Food	Aquaculture	High Sustainability	Yes	No	No	0 - No participation
PLUXIN	Project	Flanders	2020	Environmental Quality & Ecosystem Services	Environmental Monitoring	High Sustainability	Yes	Yes	Collective	4 - Collaborate
PROBIO	Project	Flanders	2019	Blue Valley	Sustainable Blue Economy	Low Sustainability	Yes	No	No	0 - No participation
PROFIT	Project	European (ERDF)	2016	Tourism	Coastal and Maritime Tourism	Low Sustainability	Yes	Yes	No	1 - Inform
QUEST 4D	Project	National	2007	Environmental Quality & Ecosystem Services	Environmental Monitoring	High Sustainability	Yes	No	No	0 - No participation
RHEDCOOP	Project	European (ERDF)	2018	Renewable Energy	Onshore Renewable Energy	High Sustainability	No	Yes	Collective	3 - Involve

BLUE BALANCE

Name	Type	Administrative/ governmental level	Starting Year	Thematic cluster	Topic label	Sustainability level	Link coastal area	Participatory approach	Citizen involvement	Score (level of interaction) - IAP2 (Bammer, 2019)
SAPOLL	Project	European (ERDF)	2016	Environmental Quality & Ecosystem Services	Nature Restoration/ Conservation	High Sustainability	No	Yes	Individual	1 - Inform
SARCC	Project	European (ERDF)	2019	Climate Change Adaptation	Nature Based Solutions	High Sustainability	Yes	Yes	Collective	2 - Consult
Scape	Project	European (ERDF)	2016	Climate Change Adaptation	Nature Based Solutions	High Sustainability	Yes	No	No	0 - No participation
SeaChange	Project	European (H2020)	2015	Literacy & Citizen Science	Ocean Literacy	High Sustainability	Yes	Yes	Individual	5 - Empower/Co-creation
Seafood Tomorrow	Project	European (H2020)	2017	Blue Food	Fisheries	High Sustainability	Yes	Yes	No	2 - Consult
SeaWatch	Project	National	2015	Literacy & Citizen Science	Citizen Science	High Sustainability	Yes	Yes	Individual	3 - Involve
SEAWISE	Project	European (H2020)	2021	Environmental Quality & Ecosystem Services	Sustainable Resource Management	High Sustainability	Yes	Yes	No	3 - Involve
Seazone Oostende	Project	City	2019	Blue Valley	Sustainable Blue Economy	High Sustainability	Yes	Yes	No	3 - Involve
SEL	Project	European (ERDF)	2017	Renewable Energy	Onshore Renewable Energy	High Sustainability	Yes	Yes	No	2 - Consult
SHIFFT	Project	European (ERDF)	2019	Renewable Energy	Onshore Renewable Energy	High Sustainability	No	Yes	Individual	5 - Empower/Co-creation
Sluice Zeebruge	Project	Flanders	2016	Sustainable Ports & Transportation	Harbour Infrastructure	Low Sustainability	Yes	Yes	Individual	2 - Consult
SOPHIE	Project	European (H2020)	2017	Human Health	Oceans and Human Health	High Sustainability	Yes	Yes	Individual	4 - Collaborate
SPONGE2020	Project	European (ERDF)	2016	Climate Change Adaptation	Climate Services	High Sustainability	No	Yes	Individual	5 - Empower/Co-creation
Star2C's	Project	European (ERDF)	2017	Climate Change Adaptation	Climate Services	High Sustainability	Yes	Yes	Individual	5 - Empower/Co-creation
SUMARIS	Project	European (ERDF)	2017	Environmental Quality & Ecosystem Services	Sustainable Resource Management	High Sustainability	Yes	Yes	No	3 - Involve
SUMES	Project	Flanders	2020	Climate Change Adaptation	Climate Services	High Sustainability	Yes	Yes	No	4 - Collaborate
SYMAPA	Project	Flanders	2019	Blue Food	Aquaculture	High Sustainability	Yes	Yes	No	5 - Empower/Co-creation
TEC!	Project	European (ERDF)	2016	Environmental Quality & Ecosystem Services	Nature Restoration/ Conservation	High Sustainability	No	Yes	Individual	1 - Inform
TENDANCES	Project	European (ERDF)	2016	Tourism	Hinterland Tourism	Low Sustainability	Yes	Yes	No	1 - Inform

BLUE BALANCE

Name	Type	Administrative/ governmental level	Starting Year	Thematic cluster	Topic label	Sustainability level	Link coastal area	Participatory approach	Citizen involvement	Score (level of interaction) - IAP2 (Bammer, 2019)
Terra Mosana	Project	European (ERDF)	2018	Tourism	Hinterland Tourism	Low Sustainability	No	Yes	Individual	1 - Inform
Testerep	Project	National	2021	Climate Change Adaptation	Coastal protection	High Sustainability	Yes	Yes	Individual	2 - Consult
Think Tank North Sea	Project	National	2017	Spatial Planning & Policy	Think Tank	High Sustainability	Yes	Yes	Collective	5 - Empower/Co-creation
TILES	Project	National	2013	Environmental Quality & Ecosystem Services	Sustainable Resource Management	High Sustainability	Yes	No	No	0 - No participation
TransfAIR	Project	European (ERDF)	2019	Environmental Quality & Ecosystem Services	Environmental Monitoring	High Sustainability	No	Yes	Individual	1 - Inform
Triple C	Project	European (ERDF)	2016	Climate Change Adaptation	Coastal protection	High Sustainability	No	Yes	No	3 - Involve
ULTFARMS	Project	European (H2020)	2023	Blue Food	Aquaculture	High Sustainability	Yes	Yes	Collective	5 - Empower/Co-creation
UNITED	Project	European (H2020)	2020	Blue Food	Aquaculture	High Sustainability	Yes	Yes	Collective	2 - Consult
ValgOrize	Project	European (ERDF)	2018	Blue Food	Aquaculture	High Sustainability	Yes	No	No	0 - No participation
VALYS	Project	European (ERDF)	2016	Environmental Quality & Ecosystem Services	Sustainable Resource Management	High Sustainability	No	Yes	Individual	5 - Empower/Co-creation
VEDETTE	Project	European (ERDF)	2017	Tourism	Coastal and Maritime Tourism	High Sustainability	Yes	Yes	Individual	2 - Consult
Verdwenen Zwinhavens	Project	Flanders	2021	Tourism	Coastal and Maritime Tourism	Low Sustainability	Yes	No	No	0 - No participation
Viaduct Gentbrugge	Project	Flanders	2020	Sustainable Ports & Transportation	Mainland Infrastructure	High Sustainability	No	Yes	Individual	4 - Collaborate
Vlaamse Baaien	Project	Flanders	2014	Climate Change Adaptation	Coastal protection	High Sustainability	Yes	Yes	No	2 - Consult
Zeeboerderij	Project	Private investment	2015	Blue Food	Aquaculture	High Sustainability	Yes	No	No	0 - No participation
Zwin uitbreiding	Project	Flanders	2016	Climate Change Adaptation	Coastal protection	High Sustainability	Yes	No	No	0 - No participation

b) stakeholder platforms matrix (non-exhaustive)

Name	Type	Administrative/ governmental level	Starting Year	Thematic cluster	Topic label	Sustainability	Link coastal area	Participatory approach	Citizen involvement	Score (level of interaction) - IAP2 (Bammer, 2019)
Breinstorm Knokke	Stakeholder Platform	City	2018	No label	Variable Topic	Low Sustainability	Yes	Yes	Individual	2 - Consult
De Nieuwe Basis Koksijde	Stakeholder Platform	Provincial	2012	Spatial Planning & Policy	Urban Planning	Medium Sustainability	Yes	Yes	Individual	3 - Involve
De Toekomst van Brugge	Stakeholder Platform	City	2014	No label	Variable Topic	Low Sustainability	No	Yes	Individual	5 - Empower/Co-creation
Grenspark Groot-Saeftinghe	Stakeholder Platform	Flanders	2021	No label	Variable Topic	High Sustainability	No	Yes	Individual	2 - Consult
GRUP Kartuizerduinen Nieuwpoort	Stakeholder Platform	City	2020	Spatial Planning & Policy	Urban Planning	Medium Sustainability	Yes	Yes	Individual	2 - Consult
GRUP Swartesfabriek Nieuwpoort	Stakeholder Platform	City	2022	Spatial Planning & Policy	Urban Planning	Medium Sustainability	Yes	Yes	Individual	2 - Consult
Iedereen Mee Koksijde	Stakeholder Platform	City	2019	No label	Variable Topic	Low Sustainability	Yes	Yes	Individual	2 - Consult
Inspraakplatform lokaal bestuur Blankenberge	Stakeholder Platform	City	2022	No label	Variable Topic	Low Sustainability	Yes	Yes	Individual	2 - Consult
Klimaatatelier Koksijde	Stakeholder Platform	City	2021	Spatial Planning & Policy	Urban Planning	High Sustainability	Yes	Yes	Individual	3 - Involve
Landschapspark Bulskampveld vertelt - het verhaal van een streek	Stakeholder Platform	European	2019	Spatial Planning & Policy	Urban Planning	Low Sustainability	No	Yes	Collective	2 - Consult
Leefbaar Koksijde Dorp	Stakeholder Platform	City	2019	Spatial Planning & Policy	Urban Planning	Low Sustainability	Yes	Yes	Individual	2 - Consult
Matchup (Oostende)	Stakeholder Platform	European (H2020)	2017	Spatial Planning & Policy	Urban Planning	High Sustainability	No	Yes	Individual	5 - Empower/Co-creation
Ons Oostende	Stakeholder Platform	City	2021	No label	Variable Topic	Low Sustainability	Yes	Yes	Individual	2 - Consult
Revitalisering Zeebrugge	Stakeholder Platform	City	2021	Spatial Planning & Policy	Urban Planning	Medium Sustainability	Yes	Yes	Individual	3 - Involve
RUP Oostende	Stakeholder Platform	City	2022	Spatial Planning & Policy	Urban Planning	Low Sustainability	Yes	Yes	Individual	2 - Consult
Wijkprikkels Oostende	Stakeholder Platform	City	2019	No label	Variable Topic	Medium Sustainability	Yes	Yes	Individual	5 - Empower/Co-creation
buurtbudgetten	Stakeholder Platform	City		No label	Variable Topic	Low Sustainability	No	Yes	Individual	5 - Empower/Co-creation
Fabrieken Voor de Toekomst: Voeding	Stakeholder Platform	Provincial		Blue Food	Aquaculture	High Sustainability	Yes	Yes	No	3 - Involve
Fabrieken Voor de Toekomst: Blue Energy	Stakeholder Platform	Provincial		Renewable Energy	Offshore Renewable Energy	High Sustainability	Yes	Yes	No	3 - Involve

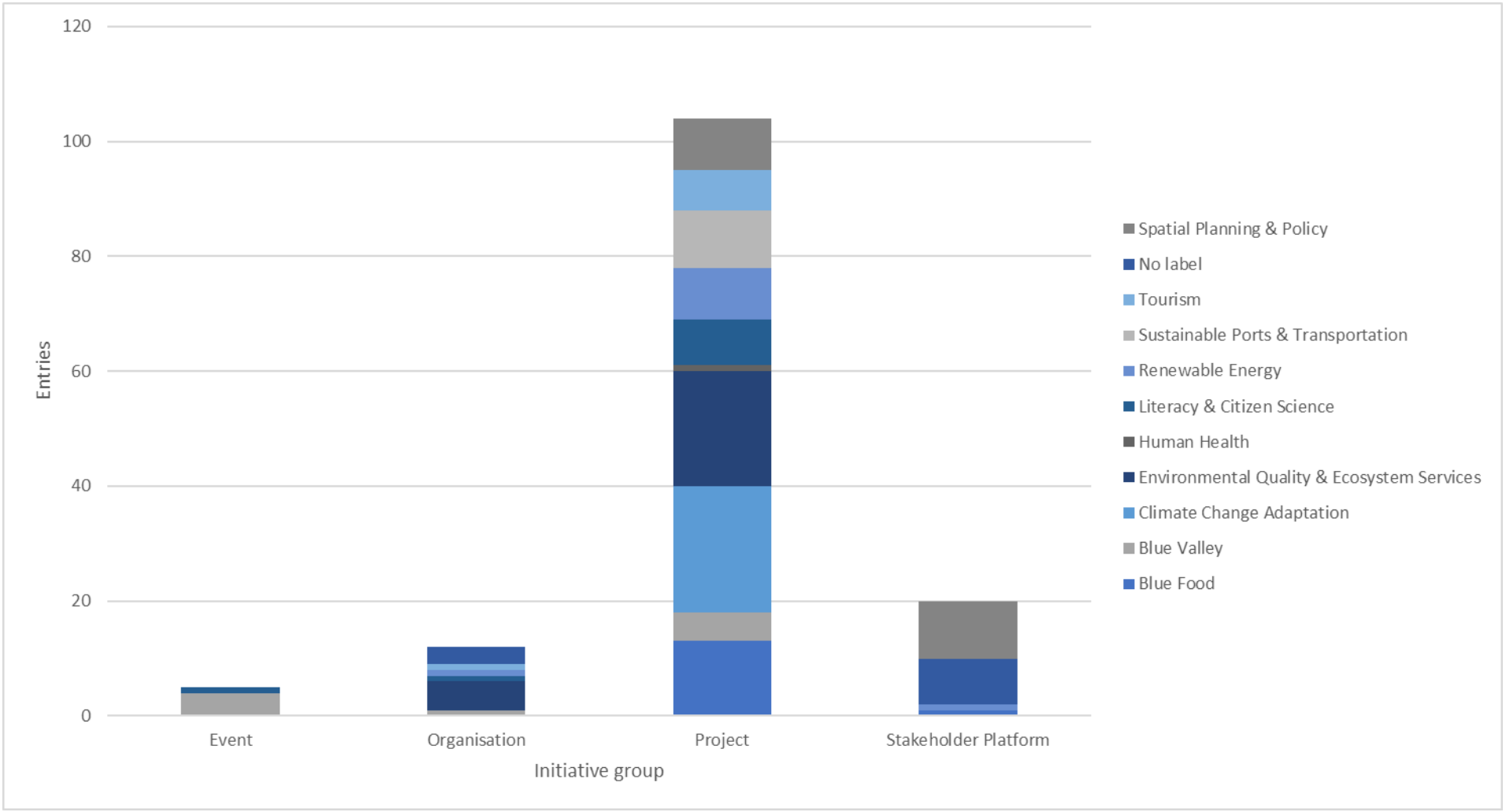
c) organisations matrix (non-exhaustive)

Name	Type	Thematic cluster	Topic label	Sustainability	Link coastal area	Participatory approach	Citizen involvement	Score (level of interaction) - IAP2 (Bammer, 2019)
O.666	Organisation	No label	Variable Topic	High Sustainability	Yes	Yes	Individual	4 - Collaborate
Seacoop Vlaanderen	Organisation	Renewable Energy	Offshore Renewable Energy	High Sustainability	Yes	Yes	Individual	3 - Involve
Propere Strandlopers	Organisation	Environmental Quality & Ecosystem Services	Nature Restoration/ Conservation	High Sustainability	Yes	Yes	Individual	4 - Collaborate
Natuurpunt Middenkust/Westkust	Organisation	Environmental Quality & Ecosystem Services	Nature Restoration/ Conservation	High Sustainability	Yes	Yes	Individual	3 - Involve
Strandwerkgroep	Organisation	Environmental Quality & Ecosystem Services	Nature Restoration/ Conservation	Low Sustainability	Yes	Yes	Individual	1 - Inform
Marien Ecologisch Centrum VZW	Organisation	Environmental Quality & Ecosystem Services	Nature Restoration/ Conservation	High Sustainability	Yes	Yes	Individual	1 - Inform
Climaxi	Organisation	Environmental Quality & Ecosystem Services	Nature Restoration/ Conservation	High Sustainability	Yes	Yes	Individual	3 - Involve
Gidsenkring Lange Nelle Oostende	Organisation	Tourism	Coastal and Maritime Tourism	Low Sustainability	Yes	Yes	Individual	1 - Inform
FMDO Oostende	Organisation	No label	Variable Topic	Low Sustainability	No	Yes	Individual	3 - Involve
Klein Verhaal	Organisation	No label	Variable Topic	Low Sustainability	No	Yes	Individual	3 - Involve
Horizon Educatief	Organisation	Literacy & Citizen Science	Ocean Literacy	High Sustainability	Yes	Yes	Individual	1 - Inform
TUA West	Organisation	Blue Valley	Sustainable Blue Economy	Low Sustainability	Yes	Yes	No	1 - Inform
CEPS	Organisation	Spatial Planning & Policy	Think Tank	Low Sustainability	No	No	No	0 - No participation

d) events matrix (non-exhaustive)

Name	Type	Administrative/ governmental level	Starting Year	Thematic cluster	Topic label	Sustainability	Link coastal area	Participatory approach	Citizen involvement	Score (level of interaction) - IAP2 (Bammer, 2019)
VMSD	Event	National	2001	Blue Valley	Sustainable Blue Economy	Low Sustainability	Yes	Yes	No	1 - Inform
Café de Zee	Event	Provincial	2020	Blue Valley	Sustainable Blue Economy	High Sustainability	Yes	Yes	Individual	1 - Inform
Grote Schelpenteldag	Event	Flanders	2022	Literacy & Citizen Science	Citizen Science	Low Sustainability	Yes	Yes	Individual	3 - Involve
Kustforum	Event	National	2009	Blue Valley	Sustainable Blue Economy	Low Sustainability	Yes	Yes	No	1 - Inform
BESS	Event	Flanders	2021	Blue Valley	Sustainable Blue Economy	Low Sustainability	Yes	Yes	No	1 - Inform

6.3. Annex III: Coastal Backbone distribution



6.4. Annex IV: Shortlist of most relevant participatory processes of the Blue Economy in Flanders

Name	Administrative/ governmental level	Starting Year	Thematic cluster	Topic label	Sustainability level	Citizen involvement	Score (level of interaction) - IAP2 (Bammer, 2019)
Coastal	European (H2020)	2018	Spatial Planning & Policy	Policy Strategy	High Sustainability	Collective	5 - Empower/Co-creation
D4PV	Flanders	2019	Climate Change Adaptation	Coastal protection	High Sustainability	Collective	5 - Empower/Co-creation
GAP & GAP2 project	European	2011	Spatial Planning & Policy	Policy Strategy	High Sustainability	No	4 - Collaborate
Kustvisie	Flanders	2017	Climate Change Adaptation	Coastal protection	High Sustainability	Collective	5 - Empower/Co-creation
MARBEFES	European (H2020)	2022	Environmental Quality & Ecosystem Services	Environmental Monitoring	High Sustainability	No	5 - Empower/Co-creation
Metropolitaan Kustlandschap 2100	Flanders	2012	Climate Change Adaptation	Coastal protection	High Sustainability	No	4 - Collaborate
PLUXIN	Flanders	2020	Environmental Quality & Ecosystem Services	Environmental Monitoring	High Sustainability	Collective	4 - Collaborate
SeaChange	European (H2020)	2015	Literacy & Citizen Science	Ocean Literacy	High Sustainability	Individual	5 - Empower/Co-creation
SOPHIE	European (H2020)	2017	Human Health	Human Health	High Sustainability	Individual	4 - Collaborate
Star2C's	European (ERDF)	2017	Climate Change Adaptation	Climate Services	High Sustainability	Individual	5 - Empower/Co-creation
SUMES	Flanders	2020	Climate Change Adaptation	Climate Services	High Sustainability	No	4 - Collaborate
SYMAPA	Flanders	2019	Blue Food	Aquaculture	High Sustainability	No	5 - Empower/Co-creation
Think Tank North Sea	National	2017	Spatial Planning & Policy	Think Tank	High Sustainability	Collective	5 - Empower/Co-creation
ULTFARMS	European (H2020)	2023	Blue Food	Aquaculture	High Sustainability	Collective	5 - Empower/Co-creation

6.5. Annex V: Expert interviews questionnaires

a) Shortlist

1. Intro

a) Please briefly describe the tasks you executed in the shortlisted project.

b) Could you give a description of the applied approach:

➔ *What were the involved stakeholder groups?*

➔ *Were the involved stakeholders direct or indirect affected by the project? (community of practice vs community of place)*

➔ *How were the participants selected and contacted? (different communication strategies or framing?)*

➔ *What was the participation rate of this outreach (contacted SH's vs participants)*

➔ At what stage of the project did these engagements take place?

➔ *What was the level of engagement?*

➔ *What engagement method(s) were applied?*

➔ *What was the geographical scope?*

2. Perceptions on participation

c) What was/were the principal aim(s) for applying a participatory approach in the project?

➔ *Link with social support creation or sustainability?*

d) Were these aims/goals achieved?

➔ *Which parts of the application do you consider as a success? Which not?*

e) Was there an evaluation of the participatory approach?

➔ *Internal and/or external?*

3. Best practices & lessons learned

f) What was the biggest obstacle during your participatory process?

g) Did you experience public opposition to the project's plans?

➔ ***If yes**: How did you cope with these conflicting views?*

h) Were there any adjustments of the planned approach during the project because of these obstacles?

b) Advisory Board

1. Intro

a) What is your most recent project or experience with a participatory approach?

b) Please briefly describe the tasks you executed in this project/case/plan.

c) Could you give a description of the applied approach:

➔ *Who were the involved stakeholder groups?*

➔ *Were the involved stakeholders directly or indirectly affected by the project? (community of practice vs community of place)*

➔ *How were the participants selected and contacted? (different communication strategies or framing?)*

➔ *What was the participation rate of this outreach (contacted SH's vs participants)*

➔ *At what stage of the project did these engagements take place?*

➔ *What was the level of engagement?*

➔ *What engagement method(s) were applied?*

➔ *What was the geographical scope?*

2. Perceptions on participation

d) What was/were the principal aim(s) for applying a participatory approach in the project?

➔ *Link with social support creation or sustainability?*

e) Were these aims/goals achieved?

➔ *Which parts of the application do you consider as a success? Which not?*

f) Was there an evaluation of the participatory approach?

➔ *Internal and/or external?*

3. Best practices & lessons learned

g) What was the biggest obstacle during your participatory process?

h) Did you experience public opposition to the project's plans?

➔ ***If yes**: How did you cope with these conflicting views?*

i) Were there any adjustments of the planned approach during the project because of these obstacles?

4. Future

*j) **For policymakers:** Do you see any participatory projects/cases/processes in the pipeline where you'll have certain engagement challenges?*

➔ *What kind of challenges will be coming up?*

***For industry:** Are there any future projects/initiatives where there's a need for public support creation?*

6.6. Annex VI: Identified obstacles and barriers during expert interviews

Predefined subcategory	*Code (open coding)*
Obstacles	Contextual differences
	Strategic preferences
	High costs (staff/effort)
	Convincing of approach
	(limited) timeframe of project
	Online high engagement meetings
	Staff shifts (political, industrial, policy)
	added value for participants
	Shifting preferences
	Create sense of urgency
	Stakeholder fatigue
Best practices	Bilateral scoping + updates
	Ownership
	Scenario thinking
	Informal moments
	individual quick wins
	Evidence-based approach
	Reference framework (co-created)
	Technical expertise
	Digital tools

6.7. Annex VII: Influencing factors of stakeholder landscape

Influencing factor	*Outcomes*	*Description*
Needs of organiser *Why does the organiser implement an engagement process?*	Strategic	Risk reduction and/or benefit improvement
	Pragmatic	Conflict resolution and/or consensus building
	Moral	Creating trust, legitimacy and fairness
Needs of user(s) *Why does the user want to be involved in the engagement process?*	Information	Receiving information about the project's intentions, decisions, implementation and results
	Satisfaction	The project's outcome needs to meet or exceed the expectations of the user
	Involvement	Seeking to be take actively part in shaping the outcome of the project
Societal *Which underlying environmental values influence the objectives of the project*	Intrinsic	The value of the environment in itself prevails, which makes nature independent of human needs or benefit.
	Instrumental	The values are attributed to the benefits that the environment provides.
	Relational	These values reflect preferences coming from people's relationship with the environment and their responsibility towards it.
Policy *What is the policy-goal of the project?*	Thematic policy context of project	The policy objectives that are present in the context of the project, for example: sustainability, economic feasibility, …
Innovative culture *What is the engagement goal of the project's innovations?*	Vision-driven	These innovations are developed to meet with a long-term vision. They explore future possibilities and produce more sustainable alternatives.
	Involvement-driven	These innovations aim on developing new ideas through intensive collaboration and teamwork in. The focus is on engaging as much stakeholders as possible for a broader social licence to operate.
	User-driven	These innovations let the external users of the innovation influence and inspire the final form of their concepts, services, etc.
Sectoral *Are there established local networks on the topic of the engagement?*	Existing local networks on topic	The potential networks that already exist regarding the topic of the project.

6.8. Annex VIII: The stakeholder engagement continuum

The stakeholder identification results in the listing of 583 different coastal stakeholders (non-exhaustive). They are distributed among the various stakeholder groups as follows (see figure 18): 257 policy stakeholders (44%), 157 research stakeholders (27%), 148 industrial stakeholders (25%) and 21 civil society stakeholders (4%).

Where possible, the stakeholders of this comprehensive group were linked to the BLUE BALANCE themes. For 27% of stakeholders, there was a link to one of the themes, with the following distribution: 7% are linked to Blue Food, 13% to Coastal Protection and 7% to Coastal Tourism. Within the stakeholder groups policy industry and civil society, coastal protection is the theme in which most stakeholders work. Within research, the greatest expertise lies in blue food (see figure 19).

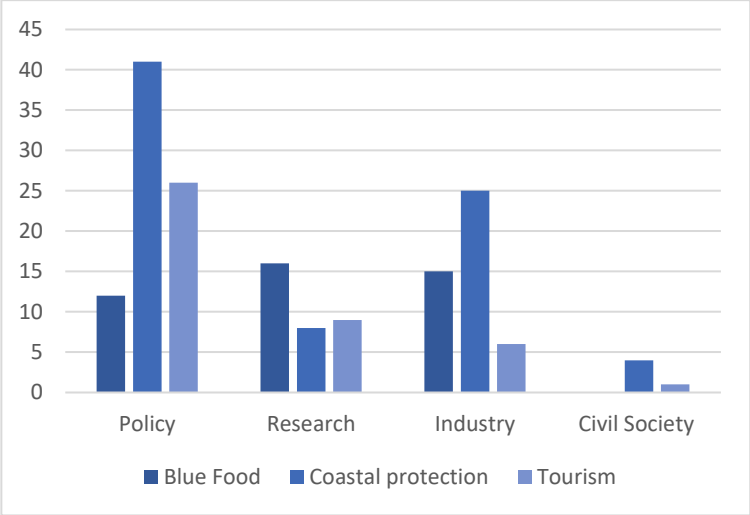


Figure 18: Distribution of stakeholders across BLUE BALANCE topics

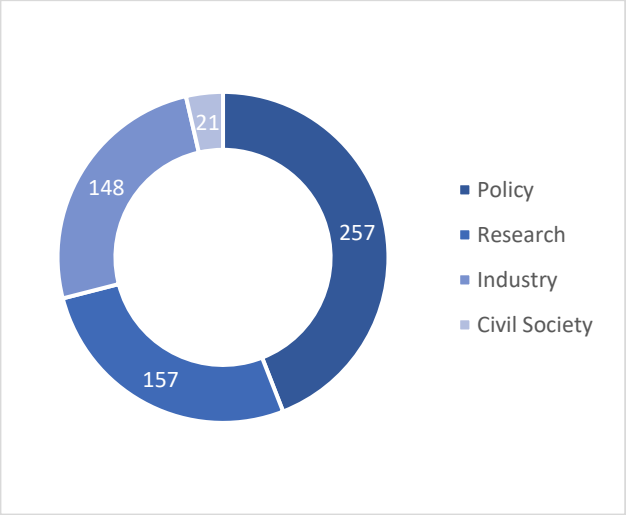


Figure 19: Distribution of stakeholders across stakeholder groups