

# Lillebælt Nature Park “Bælt i balance” (BIB), Denmark

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## **Is the project a case of...:**

- State-initiated co-creation
- Entrepreneur-driven co-creation
- Grassroots-based co-creation\*

\*For an elaboration of the typology, please consult the GOGREEN theoretical framework p. 25.

## **Integrated case analysis**

Before proceeding to the scoring of the GFs, please provide a *3–5 page case analysis* in which you describe the background, history, and national, regional, and local contexts of the case, the problems and goals addressed by the local collaboration, the participating actors and their relationships, the unfolding of the co-creation process, the most important governance factors (this may include factors other than those in focus in this project), and the generated outputs and outcomes. The conclusion may specify a few lessons learned from the case study.

### **1) Background, history, and national, regional, and local contexts of the case**

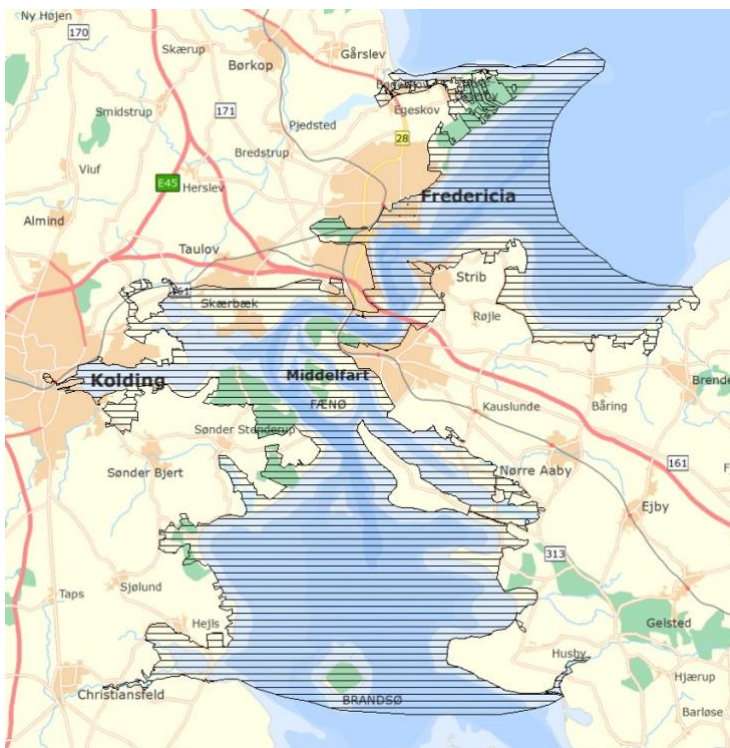
Lillebælt Nature Park is a nature park located in the Lillebælt strait, which sits between the Danish island of Funen and the mainland Jutland and connects the Kattegat Sea with the Baltic Sea. Lillebælt is home to a dense population of the world’s smallest whale and is one of Denmark’s most important breeding areas for coastal birds. Thus, the Lillebælt area is an important seedbed for marine biodiversity in Denmark. However, the living conditions for fish, whales, and the rest of the ecosystem in Lillebælt are under pressure, and the populations of fish in the sea are declining or largely absent. To increase the fish population and ensure sustainable biodiversity in the Lillebælt area, the BIB project brought together different stakeholders such as municipal representatives from Lillebælt’s surrounding municipalities, namely Middelfart, Kolding and Fredericia, local citizens, marine scientists, and local organizations and associations to improve the living conditions for the Lillebælt ecosystem.

The BIB project was a sub-project initiated by the Lillebælt Nature Park secretariat that includes multiple initiatives for environmental development and preservation in the Lillebælt area. The establishment of the secretariat took place in 2017 as a result of Lillebælt Nature Park’s obtainment of the Danish national park status in 2017. The Danish nature park designation is administered by the Danish Outdoor Council and

ensures long-term planning for the development and use of the natural resources of the nature park area.

To obtain the nature park status, a nature park should fulfil the following 10 criteria:

- a) Minimum 50 % of the nature in the nature park area should be protected
- b) The nature park should have a precise geographical demarcation
- c) The nature park should have an administratively responsible employee (in the BIB case, this is the project facilitator from the Lillebælt Nature Park secretariat)
- d) The nature park should have a nature park council
- e) The nature park should receive the necessary funding for the day-to-day running and development of the nature park, as well as the realization of the nature park plan
- f) The nature park and its delimitation should be a part of the local municipal plan or an appendix to the plan
- g) The nature park should ensure local anchoring through the involvement of local citizens and landowners
- h) There should be coordinated communication about the nature park to both its Danish and foreign visitors
- i) There should be at least one nature guide associated with the nature park
- j) The nature park should have a nature park plan that is politically accepted by the local municipality (in the BIB case, there are three municipalities: Middelfart, Fredericia and Kolding)



*Illustration of the geographical area of Lillebælt Nature Park by the Lillebælt Nature Park secretariat.*

Lillebælt Nature Park received funding from the budgets of its surrounding municipalities, Middelfart, Fredericia, and Kolding. In addition to this, the secretariat received funding from various private foundations, including funding from the VELUX and Nordea foundations for the BIB project (see GF 9 on blended financing for more).

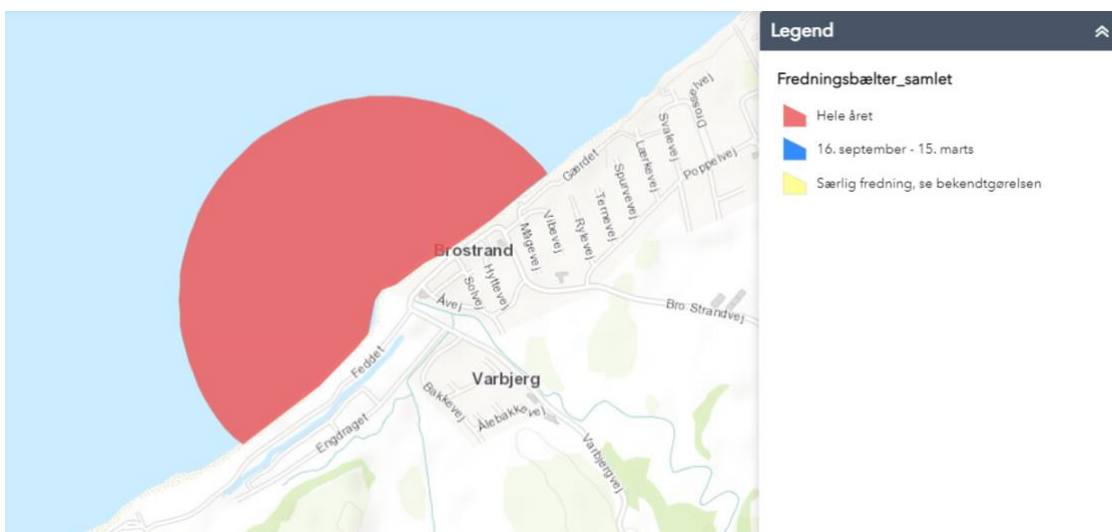
## 2) The aims of the project and the sustainability problems that it seeks to address

The Lillebælt Nature Park secretariat has initiated several projects to obtain the goals of its so far two existing nature park plans, the first running from 2017-2022 and the latest from 2023-2027. The case we call the BIB project was initiated by the secretariat in 2020. In the BIB project, the secretariat established a rocky reef to increase the population and performance of smolt (young brown trout) near Varbjerg Harbor in the Northwestern part of Funen. This rocky reef project is the focus of our case study, which forms a subset within the broader initiative “Bælt i Balance” (BIB), which is used as the name for this case study.



*The picture to the left shows a brown trout smolt, which will grow into a large sea trout as seen in the picture to the right. Large sea trout are targeted by many recreational fisheries (e.g., sport fishing). Photos: Jon Christian Svendsen.*

The aim of BIB is to improve the marine coastal environment through a dedicated effort to research-based interventions and science communication. The rocky reef project located in Varbjerg Harbour seeks to advance this overarching objective by increasing the population of smolt, which is realized by providing them a protective cover against predatory fish and birds. During their first month at sea, the smolts move from the fresh water, where they are born, to the salt water, where they will continue their lives. This transitional phase is critical, as they will have to adapt to 1) the new marine surroundings, and 2) the salt level of the sea water. The rocky reef aims to provide a safe hiding and feeding place for smolt in this critical time, allowing them to grow and survive, which, in turn, is was expected to enhance the population of trout in the Lillebælt area.



*Illustration of the area of Varbjerg Harbour protected from fishing, where the smolt reef was constructed, by Jon Christian Svendsen.*



*Illustration of the smolt reef by Bo Mammen Kruse (HavNatur) and Marie Hartlev Frausing (DTU Aqua). The reef is shaped like a horseshoe surrounding the river mouth.*

The smolt reef was developed as a collaboration between the Lillebælt Nature Park secretariat, local citizens, local fishermen associations, and marine scientists from Technical University Denmark (DTU). The marine scientists investigated the reef effects, conducting measurements in the water and testing if the reef provided good living conditions for smolt. Local citizens participated both as volunteering boaters, as they help boating the marine scientists to their measurement locations, as well as representatives from local fishing and boating associations, ensuring that the reef allows boating in the area. The collaboration was coordinated by the Lillebælt Nature Park secretariat, who oversaw the construction of the smolt reef as well as the collaboration between the different stakeholders in the project.

### **3) Project participants**

The BIB project was initiated and facilitated by the Lillebælt Nature Park secretariat, which represents Middelfart, Kolding and Fredericia municipalities. In the project, the Lillebælt Nature Park secretariat was represented by the Project Facilitator. Project participants included local citizens, a biodiversity consultant, nature guides, fishermen associations, boating associations, and marine scientists from Technical University of Denmark (DTU Aqua). The project was funded by the VELUX Foundation and the Nordea Foundation, in addition to the working hours put in by the Lillebælt Nature Park secretariat that were financed by Middelfart, Kolding and Fredericia municipalities.

The role of the different project participants was as follows. The Project facilitator oversaw the project's progression and the dialogue with internal and external project stakeholders. The biodiversity consultant proposed different locations for the smolt reef, based on their expertise within marine biodiversity, and the project facilitator chose Varbjerg as the final location. The DTU Aqua marine scientists conducted tests of the

local marine environment and provided the technical knowhow that the smolt reef is based on. The local boat owners volunteered to transport the marine scientists to their research sites and provided local knowledge and inputs to the project along with local fishermen and other citizens. Due to their close collaboration with the marine scientists, they also disseminated knowledge about the project to the local community. Moreover, local fishermen contributed with their knowledge about the local fish stock and its living conditions in Varbjerg. Finally, the municipal nature guides were responsible for communicating the knowledge obtained in the project about the marine environment to local schools, institutions and citizens, as well as Danish and foreign visitors to Lillebælt.

#### **4) How often do they meet, and do they communicate between meetings?**

The interaction between participants was largely driven by the project facilitator, who worked for the Lillebælt Nature Park secretariat. Formal meetings between the Lillebælt Nature Park secretariat and the DTU Aqua scientists took place regularly online. Meetings with citizens were not held regularly, but during the project's lifetime, there have been meetings between the project facilitator and citizens at least every 2-3 months. The constellations of participating actors varied between meetings: some meetings took place between the project facilitator and local fishermen or landowners, and other meetings were more open to everyone in the local area who were interested in the project. Meetings took place in various forms, including formal in-person or online meetings, and informal conversations in person or over the phone. The central actor in the meetings was the project facilitator, who made sure to regularly meet with and talk to all the project participants. In sum, the BIB project had a star-shaped pattern of communication with the project facilitator in the middle.

#### **5) The role and forms of knowledge sharing, coordination and joint problem-solving**

The joint problem-solving in BIB was based on knowledge-sharing and coordination between the Lillebælt Nature Park Secretariat representing Middelfart, Fredericia and Kolding municipalities, DTU marine scientists, municipal nature guides, and local citizens, of whom some represented the local fishermen association and boating association. The funding from the VELUX foundation and the Nordea foundation was obtained by the Lillebælt Nature Park secretariat and DTU Aqua based on a promise to improve the Danish marine environment through collaborative problem-solving processes between scientists and practitioners (requirement of the VELUX foundation to develop research-based, real life contributions to marine biodiversity) and to disseminate knowledge about this effort to local citizens and tourists, as well as to encourage them to benefit from the nature on the Danish coasts (requirement of the Nordea foundation to focus on dissemination). Thus, knowledge-sharing, coordination and joint problem-solving lied at the heart of the BIB project. The DTU marine scientists spearheaded the inputs to the design of the smolt reef based on their technical knowledge and conduct measurements on the marine biodiversity development in the area. However, the development and establishment of the smolt reef was also conducted based on the knowledge and input from local citizens, especially boat owners. This has enabled local boat owners to continue their activities in the harbor despite the establishment of the smolt reef, as the reef was partially adapted to their needs.

#### **6) The relation between consensus and conflict and the handling of the latter**

There was a broad consensus among project participants about the necessity of taking action for increasing marine biodiversity in Varbjerg in particular, and Lillebælt in general. Many local citizens who have lived in

the Varbjerg area for decades and enjoy using the harbor for boating, fishing and diving have been able to observe the local fish stock decline over time with their own eyes. This resulted in a sense of urgency that motivated local actors to contribute to the improvement of the marine environment. However, there have also been some potential sources of conflict in the project. For the local boat owners and fishermen, the establishment of the rocky reef entailed a narrowing of the area where they can boat and fish. Moreover, the DTU marine scientists have been dependent on volunteers from the local boating associations to be transported to research sites in Varbjerg harbor, asking them to dedicate a certain amount of time as volunteers, which in some cases could lead to frustration. However, our interviews indicate that no full-scale conflicts have taken place in the BIB project because emerging conflicts have been nipped in the bud by the project facilitator. Whenever there have been rumors about discontent or frustrations about the BIB project, the project facilitator has reached out to the relevant stakeholder(s), talked and listened to them, and tried to accommodate their concerns in the project.

#### **7) The role and form of leadership: lead actor, steering group and/or collective leadership**

The visible, day-to-day leadership in the project was conducted by the project facilitator, who works for the Lillebælt Nature Park secretariat. The project facilitator followed the official plan for Lillebælt Nature Park, which was developed by the steering group of the nature park, namely the Nature Park Council. In addition to developing this plan, the mandate of the council is to oversee that Lillebælt Nature Park meets its overall objectives. The council consists of political representatives from the city councils of Middelfart, Fredericia and Kolding, as well as representatives from associations that represent key stakeholders to the marine environment in Lillebælt. This includes the Danish Ornithological Association, the Danish Sports Fisherman Association, the Danish Environmental Preservation Association, Bælternes Fiskeriforening, Kolding Herreds Farming Association, the Danish Hunting Association, Fredericia Museums, the Danish Environmental Protection Agency, the Danish Nature Agency Funen and Trekantsområdet, Fritidsfiskerne, Visit Middelfart/Visit Fredericia/Destination Trekantsområdet (local tourist associations), and a local business partner of the nature park. Moreover, Lillebælt Nature Park has an executive committee consisting of one local politician from each of the participating municipalities (Middelfart, Fredericia and Kolding). The executive committee's mandate is to manage the project's political communication and ensure sustained political support for it in the city councils of Middelfart, Fredericia and Kolding. Nevertheless, in the project investigated was led by a lead actor since both the council and the steering group belongs to the big parent project,

#### **8) The temporal unfolding of the co-creation process: major shifts and ups and downs**

While Lillebælt Nature Park has existed since 2017, the BIB project in Varbjerg only began in 2020. The project facilitator from the Lillebælt Nature Park secretariat first reached out to the participating marine scientists from DTU in 2016 to ask if they wanted to participate in a joint application to the VELUX foundation for funding for a marine biodiversity project. While their first application was rejected for being too much “pure science”, meaning it was not applied enough, a later application that was more applied, and testing actual solutions, was accepted. This granted the project the funding to build the smolt reef in Varbjerg, among other projects, and the BIB project leg in Varbjerg began in 2020.

The project started with the conducting of feasibility studies conducted by a biodiversity expert, who assessed the biology and geology of the area as well as its potential prehistoric sites to determine whether a



rocky reef could be established in the area. When the feasibility of the project was established in 2021, the project facilitator applied for the necessary governmental approvals for the project. These approvals were granted in 2022, and the DTU Aqua marine scientists subsequently began their investigation of the conditions for smolt in the area (near the river mouth of the Stor Å river), assisted by local volunteering boat owner who transported them to marine sites. This research activity, conducted by DTU Aqua, and engaging international students, documented smolt behavior in the area before the smolt reef was installed. By mapping the juvenile trout (the smolts) in 2022 while there was no smolt reef, the researchers have before-reef observations to compare with the upcoming after-reef conditions. The after-reef data will be collected in 2025 for comparison. With this crucial comparison, DTU Aqua will estimate the expected positive influence of the reef on the smolt performance after the smolt reef is installed. Completing the 2022 before-reef data collection was a major effort lasting a few months.

Between 2020 and 2023, a series of meetings took place between the project facilitator and participants to communicate about the project's progress and respond to local citizens' concerns. The procurement process for the establishment of the smolt reef took place in the end of 2022, and final smolt reef was built in the spring of 2023. The smolt reef in Varbjerg was inaugurated in October 2023 with more than 200 participants in the inauguration.



*Photo by Jon Christian Svendsen of local volunteering boat owner collaborating with international students (from Austria and Spain) collecting data at Varbjerg during the spring 2022 DTU research. The partners collected data in the Varbjerg area (near River Stor Å) before the smolt reef was installed to document the smolt conditions prior to the installation of the smolt reef. Details are available here: [Link 1](#) and [Link 2](#)*

## **9) The most important governance factors (may include factors other than those in focus in this project)**

### **GF1**

The perceived importance of biodiversity was a major lever for mobilizing the collaborating stakeholders, as they all recognized the importance of protecting the coastal environment. The strong consensus around the importance of biodiversity showcases how it was prerequisite for creating a joint vision and, in turn, a willingness to find collaborative solutions to the issue of vulnerable fish populations.

### **GF 2**

The requirements for the project deriving from its status as a Danish nature park has had a significant importance in the success of the BIB project. First, it has secured broad political ownership over the project in the three participating municipalities. Second, it has generated municipal funding and a clear mandate to work with marine biodiversity preservation and development. Third, it has incentivized the project to include all relevant and affected stakeholders in the project and collaborate and consult with them in every step of the project.

### **GF 9**

In the BIB project, blended finance consisting of financial support from Middelfart, Fredericia and Colding municipalities, the VELUX foundation and the Nordea foundation has not only served the purpose of financing the project's day-to-day activities but has also incentivized the project to live up to a broad range of criteria. For instance, there has been a funding requirement for the project facilitator to collaborate with local associations and municipalities, and to ensure a broad communication of the project to relevant and affected actors. Thus, blended finance has ensured a broad inclusion of relevant and affected actors and strengthened the project's communication and accountability towards these stakeholders.

### **GF 11**

A consensus formed around the notion that the success of the project was greatly influenced by its inclusivity. This inclusivity not only facilitated the mobilization of volunteers for its implementation but also garnered extensive public support by empowering local interest groups in decision-making processes. This empowerment played a crucial role in fostering a sense of collective ownership among the stakeholders, a sentiment clearly demonstrated by the significant turnout during the inauguration of the smolt reef.

### **GF 16**

From our interviews, the project facilitator has played a central role in the project's success through their exercise of facilitative leadership. It was pointed out that the project facilitator has a strong collaborative mindset and has been aware of including all relevant and affected stakeholders from the project's start. Moreover, the project facilitator's continuous interactions with these stakeholders have served as a strong conflict prevention, as all stakeholders have felt informed, seen, and heard.

## **10) The generated outputs and outcomes**

The project's generated output is a smolt reef in Varbjerg harbour that is adapted to the needs of local citizens as well as the needs of the local marine environment. The smolt reef was built in the spring of 2023 using stone that was transported from Norway and some local stones. Future research will document the expected positive effects of the smolt reef for the fish population in the local River Stor Å near Varbjerg. As



part of the BIB, DTU Aqua will compare the before-reef (2022) conditions with the after-reef (2025) conditions. The local smolts' performance is expected to be greatly improved by the deployed reef. The documentation for this conjecture will be available in 2026. To document the project's outputs, we have attached a scientific report written by the DTU researchers that estimates the expected positive effects of the rocky reef.

### **11) Lessons learned about the conditions for co-creating green solutions**

The findings from this case point to the importance of establishing a legal and financial mandate for project facilitators to involve relevant and affected stakeholders in the co-creation of green solutions from an early stage in co-creation processes. They also point to the importance of strong local leadership, where the project facilitator believes in the importance of involving a broad range of stakeholders in co-creation projects and can communicate constructively and effectively with these stakeholders, even in times of conflict and disagreement.

## **Scoring and analysis of governance factors**

### **1. Perceived importance of biosphere conditions**

QCA score:

0

0.33

0.66

1

Scoring confidence:

Low confidence

Medium confidence

High confidence

Data sources:

Interviews

Documents

Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

Informants and documents uniformly report that the severity of biosphere conditions is the main motivation for collaboration in the project. Many of the local citizens, public servants, fishermen and boat owners that we interviewed have had the opportunity to observe the marine environment in Varbjerg harbor over time, as they have continuously used it for swimming, fishing, and boating. As people have seen a decline in fish stock and a general exacerbation of marine environment problems over time, including the decline of oxygen levels, the different stakeholders in the project feel an urgency to mobilize and act. To this end, there is a broad agreement among the project participants and project stakeholders that collaboration is the way forward, as the marine environment in Varbjerg has multiple stakeholders with different interests who all need to be mobilized to make the rocky smolt reef happen. For example, the local fishermen have expressed a great concern and awareness of the challenges facing the fish population, as their fishing activities depend on the sustainability thereof. An additional factor is the goal of communicating Lillebælt as an attractive place to visit and live, to develop tourism, and to accommodate the demographic development of the region. However, this goal is secondary to biosphere conditions.

## **2. Legislation, programs, and formal goals**

### QCA score:

- 0  
 0.33  
 0.66  
 1

### Scoring confidence:

- Low confidence  
 Medium confidence  
 High confidence

### Data sources:

- Interviews  
 Documents  
 Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

Lillebælt Nature Park obtained its national park status from the Danish Outdoor Council in 2017. Concretely, having the status of nature park in Denmark means that at least 50% of the nature in the nature park should be protected, and that the nature park secretariat makes a plan for how they will do this in practice. The nature park status entails an explicit expectation from Danish Nature Parks that the nature park secretariat works with local citizens and associations to obtain its goals. As Denmark's biggest nature park, and one out of only two marine nature parks in Denmark, Lillebælt's attainment of the national park status has generated funds from the Danish National Budget for its secretariat and for working with nature management and the establishment of rocky reefs in particular. Thus, the formal acknowledgement of Lillebælt as a nature park and the accompanying legislation that comes into effect has given the project facilitator the financial support, legitimacy, and mandate needed to solve sustainability and marine biodiversity issues through collaboration with local stakeholders. This has supported the collaborative process of BIB, as it has incentivized the project facilitator to continue their work with collaborative problem-solving. Moreover, the project is relevant for the biodiversity strategies of the three participating municipalities, which strengthens the project's mandate to work with biodiversity.

The general support for nature parks also dovetails with Danish Marine Strategy Framework, the purpose of which is to maintain or establish a so-called good environmental status in all European marine areas by 2020. Another legal precedent is the Natura 2020 plans, which were developed as part of the Danish Marine Strategy Framework, which designated 97 areas at sea as Natura 2000 areas. A Natura 2000 area refers to a location inhabited with endangered and valuable animal and/or plant species. Several areas in the Lillebælt area are designated as Natura 2000 areas, which contributed to its subsequent qualification as a nature park.

## **3. Relative openness of public governance paradigms**

### QCA score:

- 0  
 0.33  
 0.66  
 1

### Scoring confidence:

- Low confidence  
 Medium confidence  
 High confidence

### Data sources:

- Interviews  
 Documents  
 Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

Lillebælt Nature Park's plan, which was signed by the mayors of the three participating municipalities, declares that collaboration with local citizens, associations and companies is a key vehicle to achieve the goals of the nature park. The three municipalities all display a commitment to new public governance principles, as they have sought to act as a platform that provides non-state actors with the institutional avenues to contribute to local decision-making processes. For example, all the municipalities have declared a commitment to the SDGs, for example SDG 17 that focuses on cross-sectoral partnerships. Collaborative and partnership-based solutions have particularly been present in social welfare areas, related to schooling, recreational activities, and so on. Within the context of BIB, the openness of the public governance paradigms has also been affirmed by the project facilitator (representing the three municipalities), who stated that "we need to do collaborative projects, because we cannot make rules or just do something on our own. We always need to do it together with the local citizens". According to different project participants, including nature guides, local citizens and representatives from local associations, this is also followed through in practice. Particularly, the project facilitator, who represents the governance system, actively seeks input from local actors and incorporates these inputs into the project.

#### **4. Formalized institutional channels for citizen participation and community mobilization**

QCA score:

0

0.33

0.66

1

Scoring confidence:

Low confidence

Medium confidence

High confidence

Data sources:

Interviews

Documents

Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

Within the context of Danish municipalities in general, there are several channels for citizen participation enshrined in the municipal law. For example, municipalities make use of user boards, participatory budgeting, town hall meetings, and so-called §17.4 special committees whereby local citizens can perform advisory functions for the municipality. All these institutional channels suggest that a panoply of mechanisms is at the disposal of the municipalities for mobilizing local communities and citizen inputs. However, the BIB project has not been shaped by these formalized channels, as it primarily mobilizes local citizens primarily through reaching out to them informally. The project facilitator has put a large effort into reaching out to all relevant and affected actors in the local area and has interacted with them through both formal meetings and informal phone calls. However, according to the project participants, the formal meetings do not directly draw upon existing formalized institutional channels, as public hearings are largely perceived as "grievance channels", although they do mirror some of their properties. Thus, while the institutional landscape of Danish municipalities has shaped the project in a significant way, they have not been directly integrated in the project's operations and, in turn, improved its collaborative processes.

## **5. Mechanism for ensuring top-down government and bottom-up social accountability**

### QCA score:

- 0  
 0.33  
 0.66  
 1

### Scoring confidence:

- Low confidence  
 Medium confidence  
 High confidence

### Data sources:

- Interviews  
 Documents  
 Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

There are both top-down and bottom-up accountability mechanisms in the project, primarily between the project facilitator and local citizens, associations and companies (bottom-up), between the project facilitator and the participating municipalities (top-down), and most importantly between the project facilitator and the Danish Outdoor Council (top-down). First, the project facilitator regularly communicates about the project's progress, or lack thereof, to local actors to keep them informed. Second, the project facilitator reports regularly back to a steering committee consisting of leaders from the three participating municipalities, namely Middelfart, Fredericia and Kolding municipalities. Third, the project facilitator is required to report back to the Danish Outdoor Council, who grants nature park status, about the achievements of Lillebælt Nature Park once a year. This entails reporting on collaboration with local actors, among other things, as the Danish Outdoor Council has established local collaboration as a key requirement for Danish nature parks. Overall, these mechanisms for ensuring accountability have been significant levers for building trust and support for the project, as all project participants have voiced their appreciation of the clear channels of communication and the continuous updates they have received. Accountability has thus functioned as a source of collaborative integration, raising the overall awareness of the local community in the project and, in turn, has improved the willingness for local interest groups to remain committed. In consequence, there is a discernible mechanism through which the feedback provided through these bottom-up and top-down accountability mechanisms has improved the collaborative processes of the project.

## **6. Strategic agenda-setting by means of translation**

### QCA score:

- 0  
 0.33  
 0.66  
 1

### Scoring confidence:

- Low confidence  
 Medium confidence  
 High confidence

### Data sources:

- Interviews  
 Documents  
 Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

SDG 14 is the focal SDG of the project, relating to marine biodiversity, and SDG 12 is the secondary SDG of the project, relating to sustainable tourism. The project facilitator and the municipal nature guides have made particular efforts to translate these SDGs to make them relevant for local problems. This has particularly been an advantage vis-à-vis the contact with local companies, for instance when asking local contracting companies for stone donations for the smolt reef, as these companies also work with the SDG framework. The translation of SDGs has also helped communicate the project to local school pupils.

However, from the perspective of the involved citizens, the project does not work with the SDGs, or at least “it is not something we think about” according to a citizen. Therefore, the translation of the SDGs has mainly had an appeal towards more external stakeholders to the project such as contracting companies and school pupils but has not played a role in supporting collaboration between the Lillebælt Nature Park secretariat and the internal participants in the project, namely local citizens and associations. Still, since the translation of the SDGs played a key role mobilizing some actors, although not all of them, the governance factor has been scored 1.

**7. Construction of narratives about successful multi-actor collaboration**

- |                                       |   |  |
|---------------------------------------|---|--|
| <u>QCA score:</u>                     | <u>Scoring confidence:</u>                          | <u>Data sources:</u>                           |
| <input type="checkbox"/> 0            | <input type="checkbox"/> Low confidence             | <input checked="" type="checkbox"/> Interviews |
| <input type="checkbox"/> 0.33         | <input type="checkbox"/> Medium confidence          | <input type="checkbox"/> Documents             |
| <input type="checkbox"/> 0.66         | <input checked="" type="checkbox"/> High confidence | <input type="checkbox"/> Observations          |
| <input checked="" type="checkbox"/> 1 |   |  |

Please elaborate on the reasoning behind your scoring for this governance factor:

The Lillebælt Nature Park Secretariat has 10 years of experience with collaborating with local citizens, associations and private companies in relation to biodiversity and green transition projects. The experiences from these collaborations are primarily positive, and the project facilitator actively draws on the learnings from previous collaborations to improve the collaborative process of the current project. This includes allocating time for preparing and conducting meetings and workshops, inviting all relevant and affected actors to participate in the project from the beginning and mapping their needs, and continuous communication with all project participants. According to the project facilitator, this helps preventing conflicts and ensuring a strong and broad ownership over the project. Moreover, several respondents report that there is a strong collaborative tradition in the local area, and that local citizens participate actively in their community through extensive volunteering. This supports collaboration in the BIB project, as citizens bring in a collaborative mindset.

**8. Building or harnessing institutional platforms and arenas**

- |                                       |   |  |
|---------------------------------------|---|--|
| <u>QCA score:</u>                     | <u>Scoring confidence:</u>                          | <u>Data sources:</u>                             |
| <input type="checkbox"/> 0            | <input type="checkbox"/> Low confidence             | <input checked="" type="checkbox"/> Interviews   |
| <input type="checkbox"/> 0.33         | <input type="checkbox"/> Medium confidence          | <input type="checkbox"/> Documents               |
| <input type="checkbox"/> 0.66         | <input checked="" type="checkbox"/> High confidence | <input checked="" type="checkbox"/> Observations |
| <input checked="" type="checkbox"/> 1 |   |  |

Please elaborate on the reasoning behind your scoring for this governance factor:

The project utilizes different digital and physical platforms for its collaborative process, such as Facebook, Teams, e-mail, and accessible local physical venues in Varbjerg (clubhouses, schools, etc.). As different participants prefer using different platforms, this helps the project facilitator to reach out to everybody in their preferred manner. The project facilitator has a strong focus on meeting the citizens “where they are”.

By meeting in local venues, it also creates a sense of familiarity for the participants, which has potentially made participants more susceptible to collaborating. When meeting the citizens, the project facilitator is focused on showing up well-prepared and with a clear agenda. This has supported the collaborative process, as people feel seen and heard when being met in their preferred arena, and when meeting a project facilitator who is well-prepared to answer their questions.

### **9. Provision of access to blended financing**

QCA score:

- 0
- 0.33
- 0.66
- 1

Scoring confidence:

- Low confidence
- Medium confidence
- High confidence

Data sources:

- Interviews
- Documents
- Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

The project is funded by the Danish state and Middelfart, Kolding and Fredericia municipalities through salaried working time for the Lillebælt Nature Park secretariat, as well as by the VELUX foundation and Nordea foundation. These funding sources finance salaried working time for the Lillebælt Nature Park secretariat, the DTU marine scientists, and the local nature guides, as well as the establishment of the smolt reef (purchasing smolt, building the stone reef and putting smolt). The funding from the Danish state and the three municipalities comes with the requirement that Lillebælt Nature Park lives up to its overall mandate as a nature park. The VELUX and Nordea funding requirements are more specifically tied to the BIB project, as the VELUX foundation has a particular focus on rocky reefs, and the Nordea foundation has a particular focus on communication of the project's activities. The funding from the VELUX foundation has supported collaboration by requiring that the project collaborates with research partners, local municipalities, and local citizen associations, thus incentivizing the project facilitator to include a broad range of relevant and affected stakeholders. There is also a requirement from the VELUX foundation that the project establishes visible results so that the local community can see them with their own eyes. The funding from the Nordea foundation requires the project to communicate its activities towards local citizens, stakeholders, and tourists. This requirement has supported collaboration by keeping local stakeholders continuously informed about the project, which has prevented conflicts and ensured a broad ownership and positive spirit throughout the collaboration.

### **10. The capacity to leverage support from authorities to enable local collaboration**

QCA score:

- 0
- 0.33
- 0.66
- 1

Scoring confidence:

- Low confidence
- Medium confidence
- High confidence

Data sources:

- Interviews
- Documents
- Observations



Please elaborate on the reasoning behind your scoring for this governance factor:

The project facilitator has occasionally reached out to higher-level authorities. For instance, to establish rocky reefs, a permission from the Danish Coastal Authorities must be obtained, which requires a large amount of work that the project facilitator has taken on. However, our interviewees do not mention any steady attempts to cultivate relations with higher-level authorities, and the higher-level authorities have not assisted the project in removing red tape legal issues or supporting specific needs beyond giving a formal permission to establish a rocky reef.

According to the project owner, the project immediately realized that red tape on a national governmental level is often cumbersome and time-consuming to remove, and it has subsequently not made any efforts to remove the red tape that is relevant for the project. Thus, while it is possible to hypothetically leverage support from the higher-level authorities to solve potential administrative or legal barriers, the project has avoided doing so unless necessary. This reflects the trade-off between using resources to leverage support from the authorities versus adjusting the project according to ensure its independent operation.

**11. Inclusion and empowerment of relevant and affected actors**

QCA score:

0

0.33

0.66

1

Scoring confidence:

Low confidence

Medium confidence

High confidence

Data sources:

Interviews

Documents

Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

The project facilitator has from the project's early stages had a strong focus on inclusive collaboration with a broad range of local citizens and associations. Among relevant actors, the project facilitator has included a consultant with expertise in marine biodiversity and marine scientists from DTU Aqua, who possess and produce important knowledge that informed the establishment of the rocky reef and monitors its effects. Among affected actors, the project facilitator has included local citizens who fish and boat in Varbjerg in their spare time, as well as local boating and fishing associations, but also more peripheral affected actors such as local summer house owners. The project facilitator has been in constant dialogue with all stakeholders during the project's lifetime. Several information campaigns have been organized throughout the project with the aim of empowering the local citizens, especially with the local interest group organizations, which were updated about the aims of the project and its ongoing progress. Another notable example is how a public event was organized as part of the inauguration of the smolt reef, which sought to inform the local citizens about the implications of the project for the local marine ecosystem. The project's collaborative process has been supported by this broad and active inclusion of relevant and affected stakeholders, as it has helped to include their knowledge and needs into the final smolt reef and has pre-empted conflicts.

## **12. Clarification of interdependence vis-à-vis common problem and joint vision**

### QCA score:

- 0  
 0.33  
 0.66  
 1

### Scoring confidence:

- Low confidence  
 Medium confidence  
 High confidence

### Data sources:

- Interviews  
 Documents  
 Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

There is a clear feeling of interdependence in the project, albeit more by some actors than others. However, this interdependence emerged spontaneously from the enduring interactions between the participating stakeholders, as the project facilitator did not systematically raise awareness about their reciprocal interdependence. In particular, the project facilitator and the DTU marine scientists have been heavily dependent on local boat owners to voluntarily transport them around in Varbjerg harbor to do site visits, as neither the Lillebælt Nature Park secretariat nor DTU have the funds to pay for boating services. The project facilitator and DTU scientists also depend on local fishermen to oversee the site during weekends. Formally, the project facilitators also depend on the collaboration with local citizens and associations due to requirements put forward by the VELUX foundation and the Danish Outdoor Council. The local fishermen and boat owners feel that they get something out of participating in the project in terms of science-based knowledge about the local marine environment and fish stock. Similarly, an informal interdependency exists on the local political level between the three municipalities of Middelfart, Fredericia and Kolding. The broad participation of the local community organizations has thus been indispensable for the overall implementation of the project. It has also increased a sense of local ownership over the project, which according to both the DTU scientists and the project facilitator has been important for ongoing engagement of the residents in the project. In conclusion, while the project facilitator did not directly seek to clarify interdependence, the sustained interactions among the stakeholders and their enduring collaborative interactions resulted in the acknowledgment that they were interdependent.

## **13. Trust-building and conflict mediation**

### QCA score:

- 0  
 0.33  
 0.66  
 1

### Scoring confidence:

- Low confidence  
 Medium confidence  
 High confidence

### Data sources:

- Interviews  
 Documents  
 Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

From our interviews, we gather that the project facilitator has made significant efforts to build trust and mediate conflicts through regular communication with all the participating stakeholders in the project. The project facilitator has arranged meetings with citizens and project participants to ask for their input about the collaboration, what they like about it and what could be improved, so that they could voice their concerns. Moreover, the project facilitator has regularly made individual calls to project participants so that they could voice concerns one-on-one. Consequently, trust-building has been proactively pursued

through systematic and routinized practices with the aim of continuously building rapport with the participating stakeholders. According to several interviewees, this has helped pre-empting conflicts in the project before they fully occurred, which has supported the project's collaborative process significantly. According to one of the DTU scientists, the project received no complaints when in its implementation phase, which is "highly unusual" for this type of projects.

**14. Use of experimental tools for innovation**

QCA score:

- 0
- 0.33
- 0.66
- 1

Scoring confidence:

- Low confidence
- Medium confidence
- High confidence

Data sources:

- Interviews
- Documents
- Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

There was no use of prototyping or user-centered design during the collaborative process.

**15. Ongoing critical self-reflection and learning (i.e., process and/or developmental evaluation):**

QCA score:

- 0
- 0.33
- 0.66
- 1

Scoring confidence:

- Low confidence
- Medium confidence
- High confidence

Data sources:

- Interviews
- Documents
- Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

The project has undertaken at least one substantive evaluation during its lifespan before the project was finished. This evaluation was initiated by the project facilitator and conducted collaboratively between the project facilitator and the participating local citizens and associations, with a focus on the quality of the project's collaboration. Inputs from the evaluation were used to advance the project's collaborative process. For instance, through the evaluation, it became clear that some of the local boat owners who had volunteered to transport the project facilitator and DTU marine scientists to their site visits felt that the project facilitator had drawn a little too much on their goodwill, which they were discontent with. This was subsequently adjusted by the project facilitator, who acknowledged the tension and sought to mend relations. In this case, the process evaluation has allowed the project to improve the collaborative process to pre-emptively address potential tensions from escalating, ensuring the continued progress of the project.

In addition, to the big formative evaluation, there were also ongoing evaluations where the project facilitators spoke one to one with project participants about what could be improved in the project. This facilitated a more developmental evaluation.

**16. Exercise of facilitative leadership:**

QCA score:

- 0
- 0.33
- 0.66
- 1

Scoring confidence:

- Low confidence
- Medium confidence
- High confidence

Data sources:

- Interviews
- Documents
- Observations

Please elaborate on the reasoning behind your scoring for this governance factor:

The project is formally led by the project facilitator, who works for the Lillebælt Nature Park secretariat. There is a broad consensus among our interview informants that the project facilitator's leadership successfully drives the collaborative process forward by including a broad range of relevant and affected actors from an early stage, arranging regular meetings and workshops, and communicating regularly with project stakeholders to ensure their continued support for the project. The project facilitator has been a key factor in the collaborative success of the BIB project, as all informants have expressed great enthusiasm about their trustworthiness and competent leadership. One of the key strengths of the project facilitator has been their ability to center the collaborative process around the inputs of the project participants during the deliberations. Consequently, all stakeholders felt that they were empowered in the collaborative process and were reassured that their interests were accommodated.

**Outcome variable: Successfully co-created green transitions**

The outcome variable 'co-created green transitions' will be scored in two parts. First, 'co-creation' will be scored based on an assessment of whether the participants in the initiative, project or process engaged in collaborative problem-solving that fostered creative ideas and innovative solutions (data will consist of survey data combined with interviews and documents). Next, 'green transitions' will be scored based on an assessment of whether the initiative, project or process has fulfilled or is expected to fulfill its green goals, ambitions and aspirations (data will consist of survey data combined with interviews and internal and/or external evaluation reports, including scientific publications).

*The scoring of this variable is done in two parts:*

1. *Is the developed solution based on collaborative problem-solving spurring creativity and innovative solutions?*
2. *Does the developed solution engender a green transition?*

*This scoring should be conducted based on both the survey and complementary green outcome evaluations. Please consult Sections 4.4 and 6.10 in the Research Protocol for more details.*

**1. Is the developed solution co-created?**

QCA score:

- 0
- 0.33
- 0.66
- 1

Scoring confidence:

- Low confidence
- Medium confidence
- High confidence

Data sources:

- Survey
- Interviews
- Documents
- Observations

Please elaborate on the reasoning behind your scoring for this part of the governance factor, including the data sources used for the scoring.

The positive average for all survey items related to collaboration, collaborative creativity and innovation, with the one exception of survey item 6 related to creativity (mean 0.11), indicates that the developed smolt reef is collaboratively developed, creative, and innovative. This is supported by interviews, which confirms that the rocky reef was a result of close collaboration between relevant and affected stakeholders. The innovative aspect of the smolt reef relates mostly to social innovation, as there is little technological innovation in the project. Thus, the adaptation of the smolt reef to the local context in Varbjerg, including the needs and wishes of local citizens, was the innovative aspect of the green solution in this case.

If possible, please insert your survey responses in the table below (in % for each response), including the mean/average % for each survey item.

	Strong. dis.	Dis.	Slight. dis.	Neither agr/dis	Slight. agree	Agree	Strong. agree	Don't know	Mean
1. Problem-solving mobilized different experiences, and/or ideas and/or forms of knowledge to develop new perspectives	0 %	0 %	0 %	9 %	9 %	27 %	55%	0 %	2.27
2. Through the collaborative problem-solving process, different experiences and/or ideas and/or forms of knowledge have been mobilized to search for unconventional solutions	0 %	0 %	0 %	9 %	0 %	36 %	45 %	9 %	2.3
3. The collaborative problem-solving process mobilized different experiences, and/or ideas and/or forms of knowledge to search for solutions that go beyond standard/text-book solutions	0 %	0 %	0 %	18 %	0 %	18 %	55 %	9 %	2.2
4. The co-created solution breaks with established practices	0 %	0 %	9 %	9 %	0 %	36 %	45 %	0 %	2

5. The co-created solution disrupts conventional wisdom	9 %	9 %	0 %	18 %	0 %	27 %	18 %	18 %	0.78
6. The co-created solution offers new ideas to address the green transition problem	9 %	18 %	0 %	36 %	0 %	0 %	18 %	18 %	-0.11
7. I'm supportive of the co-created solution	0 %	0 %	0 %	0 %	0 %	9 %	91 %	0 %	2.9
8. I'm content with the overall collaborative process of the project	0 %	0 %	0 %	0 %	9 %	18 %	73 %	0 %	2.63
9. I feel the multi-actor collaboration process was a prerequisite for the success of the project	0 %	0 %	0 %	0 %	0 %	36 %	64 %	0 %	2.63
10. I'm satisfied by the results of the co-creation effort in terms of expected impact on the welfare of the community	0 %	0 %	9 %	36 %	0 %	0 %	36 %	18 %	1.2
11. The collaborative interaction in the project has led to an innovative solution	0 %	0 %	0 %	27 %	9 %	9 %	45 %	9 %	1.8
12. The actors involved in the project are engaged in collaborative interaction that stimulated creative problem-solving	0 %	0 %	0 %	9 %	18 %	27 %	27 %	18 %	1.9
13. The co-created solution meets the proposed goals of the project	0 %	0 %	0 %	18 %	9 %	27 %	36 %	9 %	1.9
14. The co-created solution will be durable and robust in the long run	0 %	0 %	0 %	9 %	0 %	27 %	55 %	9 %	2.4
15. The co-created solution is expected to significantly improve sustainability for the whole community	0 %	9 %	0 %	36 %	9 %	0 %	18 %	27 %	2.6



## 2. Does the developed solution engender a green transition<sup>1</sup>?

### QCA score:

- 0
- 0.33
- 0.66
- 1

### Scoring confidence:

- Low confidence
- Medium confidence
- High confidence

### Data sources:

- Survey
- Interviews
- Documents
- Observations

Please elaborate on the reasoning behind your scoring for this part of the governance factor, including the data sources used for the scoring:

The positive average of survey item 15 indicates that the developed solution engenders a green transition. The green outcomes of the developed solution are also corroborated by an independent scientific report prepared by researchers at the Technical University of Denmark (DTU), as appended right below.

### GOGREEN – scientist report

Authors: [Marie H. Frausing](#), [Henrik Baktoft](#) & [Jon C. Svendsen](#), Technical University of Denmark (DTU)

### The world's first smolt reef is expected to help young brown trout

Many brown trout smolt (*Salmo trutta*) die during their migration from freshwater to saltwater. A smolt is a young brown trout. The world's first smolt reef has been built in Denmark recently. It is designed to provide new shelter and - over time - a food source for smolt. This is expected to help the fish while they are migrating from River Storå and into the sea (Båring Vig) in central Denmark. By providing shelter and food resources, the smolt reef is forecasted to increase local smolt presence.



Figure 1 – Illustration of the established stone reef in front of River Storå. The yellow markings illustrate location of the stones. Fish migrating from the river and into the sea will encounter the reef (the yellow markings) and likely benefit from elevated shelter availability and extra food resources in the area.

<sup>1</sup> By "green transitions", we mean objectives and aspirations that correspond to at least one of the Green SDGs (SDG 6, 7, 11, 12, 13, 14, 15). The project does not have to refer explicitly to the green SDGs, but the project's green objectives

### **The reef is designed to benefit smolt**

A key factor in brown trout mortality is smolt predation by several species. The other species are foraging on the smolt to a degree where the fish populations are threatened. In particular, this includes a predatory bird called great cormorant (*Phalacrocorax carbo sinensis*), but also species such as heron, zander, and other fish. Mammals as seals, mink and otters are likewise potential smolt predators (Jepsen et al. 2014, Källo et al. 2020).

The coastal seabed in Denmark lacks rocky reefs. Rock removal from coastal areas and transportation to land started hundreds of years ago and was legal until 2009. Between 1900 and 2000 alone, about 55 km<sup>2</sup> of rocky reef were extracted from the Danish seabed. The extracted rocks have been used for structures on land along the coasts such as harbor piers. Almost none of the lost rocky reefs have been re-established and are today missing on the seabed. This means that many coastal areas, like the area around the River Storå estuary, consist of a bare and sandy seabed with little to no structure. This results in a poor availability of shelter for smolts that enter the marine environment and generates a high exposure to predators like the great cormorant.

Smolt are particularly vulnerable when they leave the freshwater and enter the saltwater. Their bodies must adjust to the higher levels of salt while arriving in a new and unknown environment. The River Storå smolt reef is designed in a horseshoe shape in front of Storå (see Figure 1). The shape of the reef prevents smolts from leaving Storå without passing the reef and provides immediate shelter in the saltwater. The shelter from the smolt reef is expected to give the smolts better chances against predators during the first critical time in the marine environment. The smolt reef also provides a structure on the seabed where organisms such as mussels and seaweed can settle upon and grow on. Over time, this can create a foundation for seaweed forests and mussel aggregations that can house millions of small organisms including small crustaceans. The small organisms can provide a significant food source for smolt that seek shelter at the new reef.

### **DTU Aqua is using advanced tracking technology to determine the effects of the smolt reef**

DTU Aqua is studying the effect of the reef on smolt behaviour and presence via aquatic acoustic telemetry. The idea behind aquatic acoustic telemetry is that marine organisms are tagged with transmitters that emit signals. Hydrophones are deployed underwater and can register signals from transmitters (hence, tagged animals) nearby. Data that are registered on hydrophones can afterwards be used to uncover the behavior and presence of tagged animals (see Figure 2).

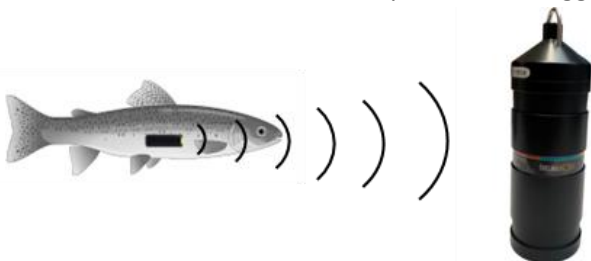
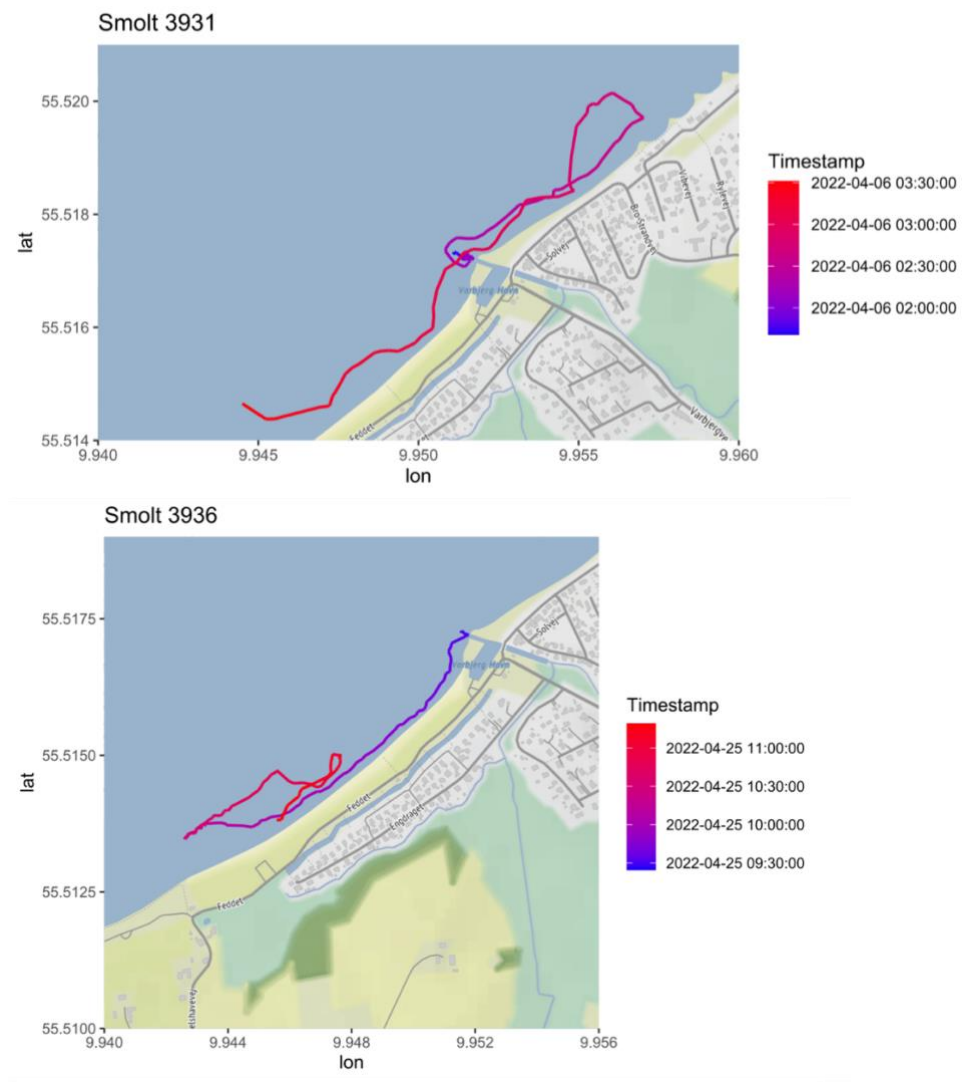


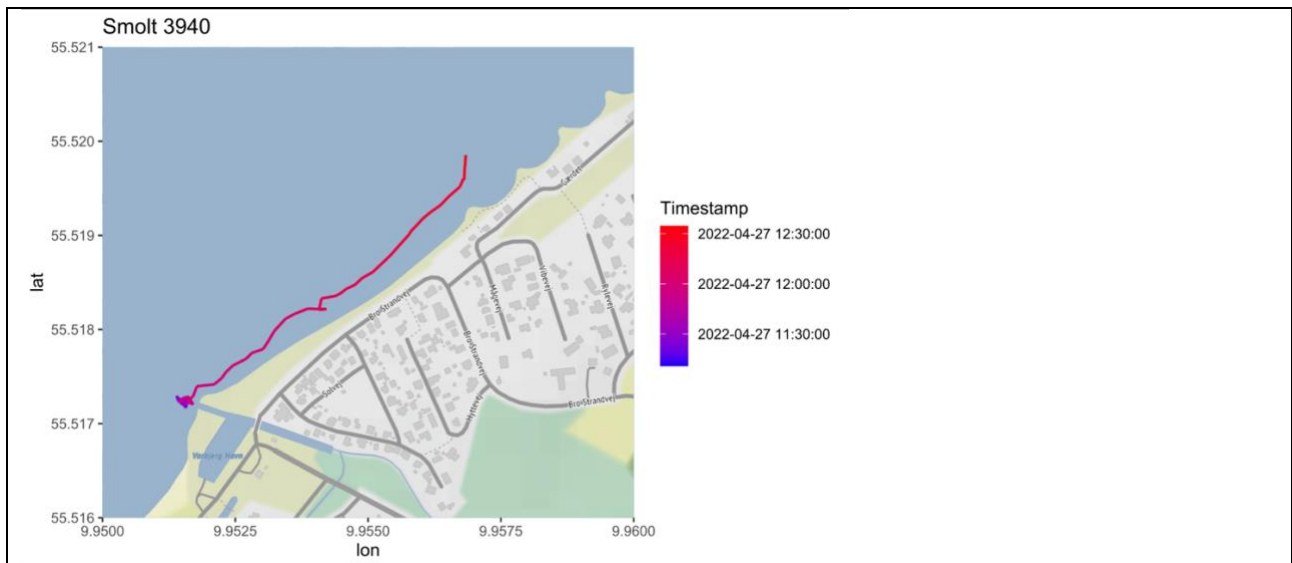
Figure 2 – Illustration of the concept behind acoustic telemetry. In this example, a trout has been tagged with a transmitter. The transmitter emits signals that travel through the water. A nearby hydrophone registers the signal from the transmitters. Registered data from the hydrophone are subsequently offloaded and analyzed. The fish cannot hear the signal.

In this study, acoustic telemetry is applied to collect before-and-after data. This means that data collected **before** the smolt reef was established will be compared to data that are collected **after** the smolt reef is established. The comparison allows DTU Aqua to reveal the effect of the smolt reef on smolt performance. Before-data were collected in 2022 when 78 wild smolts were captured from River Storå, tagged with transmitters, and returned to the stream. The transmitters emitted a uniquely coded signal every minute. Upon release, the tagged smolts were able to continue their migration downstream in River Storå towards the marine environment. A hydrophone array consisting of 34 hydrophones was deployed in the River Storå estuarine area prior to fish tagging. When tagged smolts moved into the hydrophone array, the hydrophones would register the signals from the transmitters. DTU Aqua is currently analyzing the registered data from the hydrophones. Data will be used to generate accurate smolt tracks and map the general fish presence and migration routes.

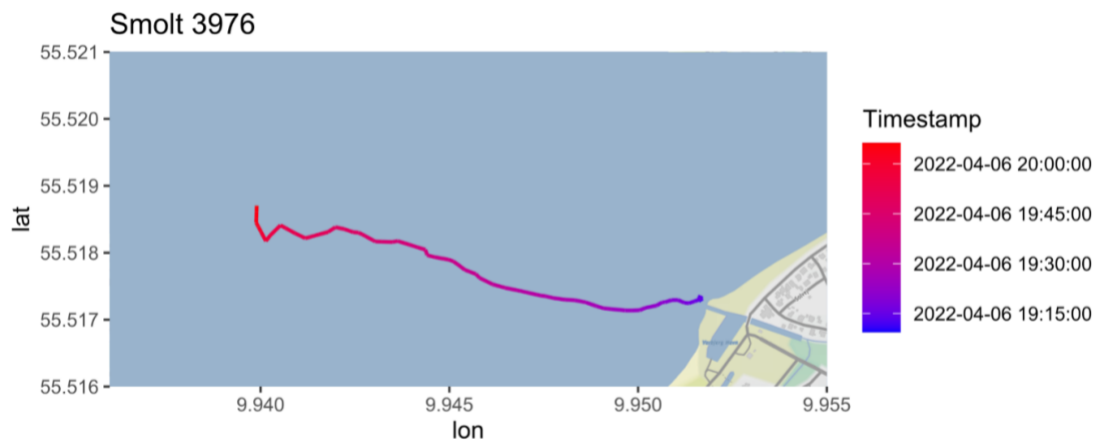
### Estuarine smolt prefer shallow water

Preliminary data analyses demonstrate that smolt prefer to move along the coastlines in the shallow water after leaving River Storå. The full data analysis is not yet complete, but only a few of the available tracks show smolts moving far away from the coastline. Below are some examples of tracks from tagged smolt in 2022:





Only a few tracks depict smolts that swim into the deeper waters away from the coastline. Below is an example:



The preliminary data suggests a trend where the tagged smolts prefer to remain near the coast in the shallow waters (usually < 1 m). It is likely that smolts experience less predation near the coastline. There are also more rocks and less sand near the coastline. It is therefore expected that after-data will demonstrate a relatively high smolt presence on and around the smolt reef.

After-data will be collected in 2025 which will enable comparison between before-and-after data (i.e. data before and after reef deployment). DTU Aqua expects to have all results ready during 2026.

**References:**

Jepsen, N., Skov, C., Pedersen, S. & Bregnballe, T. (2014) Betydningen af prædation på danske ferskvandsfiskebestande - en oversigt med fokus på skarv. DTU Aqua-rapport nr. 283-2014. Institut for Akvatiske Ressourcer, Danmarks Tekniske Universitet. 78 pp.

Källo, K., Baktoft, H., Jepsen, N. & Aarestrup, K. (2020) Great cormorant (*Phalacrocorax sinensis*) predation on juvenile down-migrating trout (*Salmo trutta*) in a lowland stream. Ices Journal of Marine Science. Volume 77:2, pp. 721-729.

If possible, please insert your survey responses in the table below (in % for each response).

1. The project:	Yes	No	Don't know
...has produced a green transition solution	82 %	9 %	0 %
...is expected to produce/has produced a green transition solution aiming to avoid a worsening in the status quo	64 %	18 %	18 %
...is expected to produce/has produced a green transition solution aiming to maintain the status quo	64 %	18 %	18 %
...is expected to produce/has produced a green transition solution aiming to improve the status quo	82 %	0 %	18 %

**Please list all the informants you have interviewed for the case study (list project role + interview date):**

Project facilitator, 14.10.2022  
 Project participant (biodiversity consultant), 04.11.2022  
 Project participant (DTU scientist), 07.11.2022  
 Project participant (DTU scientist), 14.09.2023  
 Project participant (local citizen and fisherman), 16.03.2023  
 Project participant (local citizen and boat owner), 24.03.2023  
 Project participant (local citizen and chairman of the motor boat club), 25.09.2023  
 Project participant (nature guide), 25.09.2023  
 Project participant (environmental consultant in the Danish sports fisherman association), 02.10.2023  
 Project participant (municipal biology consultant), 05.10.2023  
 Project owner (city council member in Middelfart and member of the Nature Park Council and executive council), 05.12.2023

**Please list all the observations you have made (type of meeting/workshop/etc. + observation date):**

Site visit to the inauguration of the smolt reef in Varbjerg on October 15, 2023.

**Please list all the documents you have analyzed (document name + source + year):**

Lillebælt Nature Park website: <https://naturparklillebaelt.dk/>  
 Lillebælt Nature Park Plan: [https://naturparklillebaelt.dk/wp-content/uploads/2022/05/Naturparkplan-2023-2027Forslag\\_web.pdf](https://naturparklillebaelt.dk/wp-content/uploads/2022/05/Naturparkplan-2023-2027Forslag_web.pdf)  
 Mandate of the Lillebælt Nature Park Council: <https://naturparklillebaelt.dk/wp-content/uploads/2022/06/Kommissorium-for-Naturparkraadet-2022.pdf>  
 Mandate of the Lillebælt Nature Park executive committee: [https://naturparklillebaelt.dk/wp-content/uploads/2022/01/Naturpark-Lillebaelt\\_Forretningsorden\\_UnderskrevetJan2022.pdf](https://naturparklillebaelt.dk/wp-content/uploads/2022/01/Naturpark-Lillebaelt_Forretningsorden_UnderskrevetJan2022.pdf)  
 Danish Nature Parks website: <https://dansenaturparker.dk/>  
 Friluftsrådet on Danish nature parks: <https://friluftsradet.dk/dit-friluftsliv-rig-natur-er-vigtig-for-os/maerkningsordninger-for-gode-friluftsoplevelser/danske-0>  
 TV2 articles about financial support for Lillebælt Nature Park: <https://www.tv2fyn.dk/tv-2/delaftale-om-groen-energi-paa-plads-lillebaelt-bliver-marin-nationalpark>

<https://www.tv2fyn.dk/middelfart/millioner-paa-vej-til-genopretning-af-livet-i-lillebaelt>

Fyens articles about Lillebælt Nature Park:

<https://fyens.dk/middelfart/vil-styrke-havmiljoet-nationalpark-i-lillebaelt-slut-med-at-trawle-i-lillebaelt-storebaelt-og-langelandsbaelt>

<https://fyens.dk/middelfart/snart-kan-du-se-store-skibe-og-kraner-ved-kysten-flere-tusinde-ton-sten-sejles-fra-norge-til-lillebaelt>

<https://fyens.dk/middelfart/se-video-17-meter-hoej-kran-smider-tonsvi-af-sten-i-havet-til-fordel-for-dyrelivet>

About citizen participation channels: <https://naturparklillebaelt.dk/nyt-forslag-til-naturparkplan-2023-2027-i-hoering-5-maj-til-30-juni/>

**Please note the response rate for the survey/measurement of outcome variable:**

13 survey responses = 81% response rate (the survey was sent to 16 people).