



cool blue: baltic

Common Licensing Framework



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Author: Maija Viška, Anda Ikauniece

Contributors: Frederick Bruce, Jonas Harald, Joachim Hjerl, Erika Zavackienė, Josefine Larsson, Liisi Lees, Jakub Piotrowicz

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Common Licensing Framework

COOL BLUE BALTIC

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List of Abbreviations

CLF: Common Licensing Framework
CLLD: Community-led local development
EIA: Environmental Impact Assessment
FLAG: Fisheries Local Action Group
GES: Good Environmental Status
Ha: Hectare
HAB: Harmful Algal Bloom
IMTA: Integrated multi-trophic aquaculture
KER: Key Exploitable Result
MNSP: Multi-annual National Strategic Plan
MPA: Marine protected area
MSFD: Marine Strategy Framework Directive
MSP: Maritime spatial plan
RAP: Regenerative Action Plan
RAS: Recirculating Aquaculture System
ROF: Regenerative ocean farming
Tm: Metric tonnes

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Executive Summary

The following document is a deliverable of the EMFAF “COOL BLUE BALTIC” flagship project (“*Community Ocean Farms and Local Business Clusters in the Baltic Sea*”). The document presents a recommended common licensing framework as input and a discussion point for Baltic Member States to update their aquaculture licensing procedures to allow for more **diversification**, **innovation** and **new entrants** to the sector.

The objective of the project is to assess the interest and feasibility of setting up new so-called “regenerative ocean farms” or restoring coastal marine ecosystems. The long-term objective is to regenerate the Baltic Sea to Good Environmental Status (GES)¹ under the Marine Strategy Framework Directive (MSFD) via an innovative approach to aquaculture known as “regenerative ocean farming” (hereafter ROF). ROF refers to small- to medium-scale, zero-input, low-trophic aquaculture of predominantly macroalgae and/or bivalves, but also other species including halophytes, crustaceans, invertebrates, brackish and freshwater species in either single-species or integrated multi-trophic aquaculture (IMTA) systems, in coastal, near- or offshore environments around the Baltic Sea. ROF is a form of regenerative aquaculture which generally takes place in marine environments. Regenerative aquaculture is a broader term including both marine and freshwater aquaculture, defined as “a form of commercial aquaculture that supports initiatives to provide **direct ecological benefits** to the environment, leading to improved environmental sustainability and ecosystem services, in addition to the supply of seafood or other commercial products and **opportunities for livelihood**” (Mizuta et al, 2022).

The Common Licensing Framework is one of 6 “Key Exploitable Results” (KERs) in the project, alongside a data-sharing network, a multi-annual event, a funding mechanism, an online training platform and a vocational training programme. The Common Licensing Framework (hereafter CLF) is intended as a blueprint of a simplified, streamlined licensing procedure specifically for small-scale, low- or multi-trophic aquaculture. The intention is that the CLF can be adopted and customised by Member States as a model for aquaculture licensing, thereby allowing 1) **improved access to space and water**; and 2) **improved permitting and authorisation processes** (two of the five expected outcomes of the project call, see below) and ultimately the diversification and growth of the sector. The overall objective of the KERs is to create an enabling policy, technological, economic and social environment for ROF to be deployed across Europe at multiple scales as both a **socioeconomic as well as a bioremediation solution**, contributing directly to the EU Mission:Ocean to restore European oceans and waters by 2030 and international objectives such as the UN Sustainable Development Goals.

Input was gathered from project partners into their current national aquaculture licensing procedures (authorities, permissions, process, considerations). The results of findings show that of the eight Baltic Member States, Denmark, Sweden, Germany and Estonia show the most potential for the further development of regenerative ocean farming in the short term. Finland and Latvia also demonstrate positive steps to diversify their aquaculture production, while Lithuania and Poland show the least potential. All countries are hampered by complex licensing processes, which are simultaneously prohibitive for new entrants to the sector, while generating significant administrative burdens, often for multiple national authorities and regulators. The intention of Finland, Poland and to an extent Sweden to establish single national entities for aquaculture coordination is a welcome one that should be considered by all Member States to improve transnational cooperation. The purpose of this report is intended as **input for Member States to update their aquaculture licensing processes** and harmonise them with other Member States, while considering national priorities, socioeconomic and environmental nuances. The report will be made available on the coolbluefuture.org website and presented at the 2nd EU Algae Awareness Summit in Berlin in October 2025.

¹ https://environment.ec.europa.eu/topics/marine-environment/descriptors-under-marine-strategy-framework-directive_en

Introduction

The EMFAF “COOL BLUE BALTIC” and Horizon CSAs “COOL BLUE” and “C-FAARER” projects aim to assess the feasibility of so-called “regenerative ocean farming” – the cultivation of low-trophic species such as seaweeds and shellfish – as a future industry in Europe. The projects will evaluate technological, socioeconomic, environmental, regulatory and sociocultural aspects of “aquatic farming” in order to give an indication of the costs versus benefits from multiple stakeholder perspectives. The project aims to establish **where (both geographically and practically) ROF is most feasible**, including the key barriers and enablers in each country. These preliminary assessments show where efforts should be focused in order to create an **enabling environment** for ROF to flourish in Europe at multiple scales, as well as where the basic elements are already in place. Based on this input, the subsequent licensing framework (see application template) outlines what a shared licensing process could look like.

The COOL BLUE BALTIC regenerative action plan accompanies the feasibility assessment of ROF by the COOL BLUE BALTIC project partners through co-assessment workshops and questionnaires, providing feedback on the six KERs proposed at the proposal stage of the project. These six KERs will result in recommendations, frameworks and participation pathways being published on the coolbluefuture.org website. Beyond assessing feasibility, the objective is threefold: to **gauge support** of citizens and businesses in the topic; to create **participation pathways** to onboard new recruits and to create an **enabling environment** for ROF by providing evidence of support, feasibility as well as potential positive impacts.

C-FAARER is the sister project of COOL BLUE led by Trinity College Dublin, with a geographical focus on the Atlantic and Arctic sea basins, including partners mainly from Ireland and Norway. Both projects are already in close collaboration, with the intention of combining efforts, comparing results, aligning key policy messages and further developing the concept of ROF beyond the projects’ respective durations.



Background

Expected outcomes of the project call

As a concrete example of ecosystem restoration, this topic aims at reorienting fishers from extraction to ocean regeneration activities. It will support fishers and other interested stakeholders to assess the interest and feasibility of setting up new regenerative ocean farms or restoring coastal marine ecosystems, including by testing these approaches, if possible, in connection with marine protected areas. In line with the Strategic Guidelines for a More Sustainable and Competitive EU Aquaculture, the main themes to be addressed are:

- **Knowledge creation and sharing** and promotion of innovative approaches for regenerative ocean farming, including technical, economic, environmental and social aspects linked to the reorientation process
 - *(addressed in KER5 – Online Training Platform)*
- **Identification of skills and training needs**
 - *(addressed in KERs 5 & 6 – Online Training Platform + MPA Stewardship Programme)*
- **Access to space and water**, in particular in connection with marine protected areas
 - *(addressed in KERs 1 & 6 – Common Licensing Framework & MPA Stewardship Programme)*
- **Permitting and authorisation processes** for the installation of new regenerative ocean farms
 - *(addressed in KERs 1 & 4 – Common Licensing Framework & Data-sharing network)*
- **Demonstration activities** for setting and operating regenerative ocean farming.
 - *(addressed in KER3 – Multi-annual Festival)*

The proposals should focus on job maintenance and job creation for local communities, on reskilling needs and the development of future business opportunities that will both create added value while regenerating marine ecosystems.

Note: Finance is not included in the expected outcomes of the project call. However, it is deemed by the consortium to be a key enabler, especially in the first years of development, in order to maintain momentum gained through EU project funding. COOL BLUE BALTIC seeks to fill this gap with KER2: “(Crowd)funding mechanism to (co-)finance future ROF initiatives”.

Excerpts from the project Grant Agreement and Regenerative Action Plan

Deliverable D3.1 – Cool Blue Common Licensing Framework

Deliverable Number	D3.1	Lead Beneficiary	7. LHEI
Deliverable Name	Cool Blue Common Licensing Framework		
Type	R — Document, report	Dissemination Level	PU - Public
Due Date (month)	18	Work Package No	WP3

Description
Webpage and short report detailing the licensing framework and application process

Original description

KER1: a Baltic-wide common licensing framework to improve access to space:

Access to space for coastal communities is a major hurdle to the development of the blue bioeconomy in Europe, since access is regulated on a national level and each country has very different regulations based on socioeconomic and geopolitical needs. Only very large companies have the administrative and financial resources to apply for a permit to operate in the Baltic Sea, and aquaculture operations of any kind are generally conceived as environmentally unsound. Over the last 15 years SUB has been instrumental in assisting all Baltic states to create marine spatial plans (MSP) through various EU-funded projects and has a unique overview of the MSP landscape in each Baltic EU member state. Together with national authorities, HAV has co-developed a one-page application form to allow local communities to apply for so-called ‘hobby sea allotment’ permits. These are non-commercial sites which demonstrate technical feasibility as well as concurrent socioeconomic and environmental benefits (e.g. social innovation, tourism, education). In CBB, partners will first lobby public authorities to **recognise a uniform definition of ROF as a legitimate marine activity** within and across their national institutions. They will then present the Danish case to responsible authorities from the other seven Baltic EU member states, aiming to make their own version of the application form, adapted to their respective national regulatory environments. **The framework will consist of a guideline for local and national authorities to generate bespoke application forms specific to low-trophic aquaculture for either non-commercial or small-scale commercial use.** Parameters may include the site’s geolocation; visibility of the site infrastructure (e.g. marked buoys with contact information); monitoring schedules; details of species cultivated etc. These application forms are vital to allow regenerative aquaculture to gain a foothold in national regulatory governance systems, as only *in situ* ROF sites will enable local communities to physically demonstrate the potentially positive impacts of such farms on local socioeconomic and ecological factors.

Task 3.2.1 Cool Blue Common Baltic Licensing Framework (SUB, HAV, LHEI, EUCC)

This task will collect input from the co-assessment workshops (T1.1) and any overlapping exploitation events to inform the final structure of the Common Baltic Licensing Framework (KER1), with adjustments made to meet regional nuances and regulatory requirements. This will result in a **framework which public authorities can use for licensing of new ROF sites in their respective countries.** The concept will be presented to policymakers to gather feedback and further fine-tune the framework before launch at the end of the project.

Feasibility

KER1: Common Licensing Framework will comprise a **template application form** (e.g. HAV “hobby sea allotment” application form) to be adapted by local, coastal or national authorities for their own regional

needs. This will be made available on the HAV website, with key requirements to meet EU legislation e.g. Water Framework Directive.

Expected Impact Contributions & Indicators

1. Elaboration of **good practice for permitting procedures** for local authorities and policy makers, including **recommendations for EU legislation: KER1/Common Licensing Framework**

Post-project frameworks

KER1 – Common Licensing framework: HAV and SUB will maintain information on the licensing framework on the HAV website. It will maintain **a list of country-specific licensing procedures for participating countries (or a link to the relevant public authority's website).**

KER1 Action Plan

The COOL BLUE, C-FAARER and COOL BLUE BALTIC partnership will, by 31.03.2025:

1. **Translate** the Danish Fisheries Agency hobby aquaculture application form and make it available on coolbluefuture.org as an example
→ **Achieved (see annex)**
2. Design an EU-level licensing framework or **application template**
→ **Achieved (see annex)**
3. Define a list of **farm types**
→ **Achieved (see annex)**
4. Define a list of **regenerative species**
→ **Achieved (see annex)**
5. Make the COOL BLUE application template available on coolbluefuture.org for interested parties to **register their interest**
→ **Achieved (see annex)**
6. Connect interested parties with COOL BLUE **national facilitators**, who will provide advice on national nuances in aquaculture legislation
→ **Achieved (see: <https://coolbluefuture.org/country-facilitators/>)**
7. **Present** the draft Common Licensing Framework and registrations to national authorities, with the objective of getting the application form adopted or adapted by national authorities
→ **Planned at 2nd EU Algae Awareness Summit, 16-17. October, Berlin 2025**

Common Licensing Framework

The Cool Blue Baltic Common Licensing framework is dedicated to simplifying regenerative ocean farming, making it easier to develop sustainable practices without harming the environment. The target of the common licensing framework is to develop more environmentally compatible production technologies while at the same time restoring degraded ocean ecosystems. Licensing is a tool ensuring that companies and other actors (e.g. NGOs) comply with environmental regulations. “Regenerative ocean farming” – a form of low- or multi-trophic aquaculture – can be complex, and the following common licensing framework aims to be a first step towards harmonising national and international policies and legislation. The following guide in licensing procedures across Baltic countries is a useful tool for both incipient farmers as well as national and transnational policymakers in understanding regional nuances and institutional interdependencies. Ultimately, the guide should shine a light on the barriers to growth that exist for regenerative ocean farmers. This is followed by a recommended common licensing framework (CLF) for Member States to adopt, thereby **increasing access for new farmers** while **minimising administrative workloads** for public authorities.

Licensing permits are necessary for compliance with environmental regulations and sustainable development within the jurisdiction of national authorities. Aquaculture licensing is administered by EU Member States, guided by the EU in a so-called “open method” of coordination, mainly via Multi-Annual National Strategic Plans (MNSPs)². These permits however depend on the type and scale of cultivation, the site in question, equipment used and the ultimate purpose of the installation. The licensing process should be proportionate to the scale of cultivation. Micro- or community-scale, non-commercial cultivation of native species is unlikely to have negative environmental impacts, thus generally do not require a licence. Regenerative aquaculture is also very likely to contribute to the 11 descriptors for Good Environmental Status (GES). However, permission should be gained from local authorities or private landowners before starting any cultivation.

The licensing process can be broken down to these steps:

1. Defining the **scope** of the project
2. Identifying required licenses – based on **location** and **activity** (e.g. mussel or algae cultivation)
3. **Contacting** regulatory authorities
4. Preparation and submission of **applications**
5. Following **compliance** rules – maintaining permits after approval process

Each country has different regulatory framework to apply for the licensing process. Every case is different, and a lot can be achieved with the help of experiment or research licence that is handled by local authorities. The environmental conditions also vary across the Baltic Sea, which determines what kind of regenerative ocean farming can be carried out in a particular region (species, equipment etc.). Descriptions of licensing frameworks in different countries are listed below, together with issues to be considered before starting regenerative ocean farming. Examples and best practices are also included where relevant to demonstrate the varying levels of regulation needed.

² An overview of MNSPs and the inclusion of ROF can be found in the annex

The Danish case as a success story in navigating licensing process

Denmark is taking an innovative approach to regenerative ocean farming by offering non-commercial cultivation options. The Danish non-governmental organisation Havhøst supports over 30 marine gardens, where communities cultivate seaweed, mussels and oysters. These initiatives promote sustainable ocean practices while reconnecting people with marine ecosystems. The Danish model provides a practical alternative to commercial finfish aquaculture. By establishing non-commercial cultivation, civil society groups can circumnavigate certain regulations, such as food safety laws, by taking responsibility for any risks associated with the cultivation, consumption or utilisation of regenerative species.

However, there is a significant gap between non-commercial cultivation and commercial cultivation. The COOL BLUE and COOL BLUE BALTIC projects jointly call for a **dedicated application processes for diverse forms of aquaculture at multiple scales**, ideally harmonised between Member States. This will allow new entrants to the sector, such as fishers looking to diversify their income streams, while avoiding prohibitively high costs or complexity. For example, a dedicated licensing process for commercial polyculture of low-trophic species up to e.g. 1 hectare would increase economic opportunities and access to water for entrepreneurs, while minimising the administrative burden for public authorities. Such a tiered system may look as follows:

- **0-1 hectare (non-commercial):** hobby licence required
- **0-1 hectare (commercial):** micro-enterprise licence required
- **1-5 hectare (commercial):** SME licence required
- **5-10 hectare (commercial):** full aquaculture licence required, incl. EIA



Figure 2: Source: Havhøst

Denmark

Regulatory Authorities:

- [Danish Fisheries Agency](#)
- [Danish Coastal Authority](#)
- [Danish Maritime Authority](#)
- [Danish Veterinary and Food Administration](#)

Key Permissions Required:

- Specific cultivation permit is available at the Danish Fisheries Authority for "[hobby farming](#)", defined as a mussel cultivation not exceeding 10 meters in length.

Application Process:

- For hobby farming, the process is very simple: To register a hobby farm one simply fills out a one-page online form and waits 4-6 weeks for the registration to be complete. Larger cultivation sites are applied for based on what species are to be grown. Mussels and oysters are applied for at the Danish Fisheries Authority, whereas cultivation of algae is handled by the Danish Coastal Authority. One should expect the process to take 6-8 months. During the regulatory processing, several public authorities and NGOs (including Nature Conservancy) are consulted. If the application is approved, the Danish Maritime Authority is applied to for setting up corner markers – this process usually takes less than 2 weeks. If the crops are to be grown for commercial purposes and sold, the farmer needs to be registered in the CHR-register and with the Danish Veterinary and Food Administration. Permissions are usually granted for a period of 10 years.

Special Considerations:

- The Danish Maritime Spatial Plan (MSP) has designated a range of activities to specific areas in Danish waters (cultivation for non-profit purposes are exempt). One such activity is cultivation of molluscs, which can – as a starting point – only take place in the areas designated to this specific activity. Cultivation of algae remains on such a low level today, that the Danish authorities have for now made this activity exempt to the MSP. Cultivation in MPAs is possible today, but a range of extra precautions need to be taken in the application process directly addressing the designating basis (species, nature types) for the marine protected area in question.

Sweden

Regulatory Authorities:

- Swedish Agency for Marine and Water Management
- Swedish Board of Agriculture
- Local Municipality
- County Administrative Board
- Swedish Food Agency
- Lantmäteriet (Swedish mapping, cadastral and land registration authority)
- Swedish Maritime Administration

Key Permissions Required:

- Farms smaller than 0.3 hectares require only a notification of water operations, while larger farms require a permit and an Environmental Impact Assessment (EIA). Applicants must demonstrate rights to the water area (either through a lease for private waters or an agreement for public waters). Food safety registration is needed if edible species are cultivated.

Application Process:

- The process varies depending on the size of the farm and the species cultivated. The first step is to identify the location and determine the water rights (private or public).
- For small-scale farms (under 0.3 hectares), the activity can be started after notifying the County Administrative Board.
- Larger farms require an EIA and a more extensive permit application, either to the County Administrative Board or, in complex cases, to the Environmental Court.
- Additional steps may include seeking exemptions from shoreline protection, registration as a food producer, and compliance with species protection rules.
- Multiple authorities may need to be consulted, and the applicant is expected to use the best available techniques to minimise environmental impacts.

Special Considerations:

- The current permit processes do not accommodate non-commercial or small-scale farming, nor do they address the diversity of potential species that could be farmed.
- The Swedish licensing process is complex, with large ecological variations along the coast making it difficult to generalise.
- The process may involve up to 10 different institutions, and no streamlined framework currently exists for small-scale or regenerative seaweed and mussel farming. However, support materials such as "*Havsbondens handbok*" are available online (in Swedish), and authorities are aware of the need for adapting existing systems to better accommodate regenerative practices.
- The permits themselves are important, but the processes and types of permits could be adapted and updated

Finland

Regulatory Authorities:

- **Application authority:** Centre for Economic Development, Transport and Environment (ELY)
- **Granting authority:** Regional State Administrative Agency (AVI)
- **Evaluation authorities:**
 - ELY, Centre for Economic Development, Transport and Environment
 - MMM, Ministry for Agriculture and Forestry
 - AVI, Regional State Administrative Agency
 - Väylävirasto, Finnish Transport Infrastructure Agency
 - Ruokavirasto, Finnish Food Authority (safety and quality regulations for food, feed or fertiliser)
 - Municipal Authorities
- **Regulation:**
 - Water Act
 - Environmental Protection Act
 - Marine Spatial Planning
 - Municipality planning

Key Permissions Required:

There is no specific licensing system for macroalgae cultivation in Finland. However, aquaculture in general falls under the Water Act and Environmental Protection Act.

- Fish farming permit
- Water area usage permit (by ownership or contract; private, municipality, state)
- Environmental permit (under specific conditions)
- Building and land use permits

Application Process:

The process is not clearly defined for regenerative ocean farming. The applicant might follow these steps.

- Identify water area and confirm access rights (via ownership or lease)
- Contact ELY to determine if a permit is needed
- If environmental risk exists, submit an environmental permit application to AVI
- If in a Natura 2000 area, conduct a nature impact assessment
- Coordinate with Finnish Transport Infrastructure Agency to ensure no conflict with sea traffic
- If growing food products, consult the Finnish Food Authority

Special Considerations:

Challenges:

- Approval processes in Finland do not recognise seaweed or other forms of low-trophic cultivation.
- No specific regulation.
- Undefined licensing process.
- Unsuitable application form.
- Undefined responsible authorities.

Estonia

Regulatory Authorities:

- Estonian Ministry of Climate
- Estonian Environmental Board
- Consumer Protection and Technical Regulatory Authority

Key Permissions Required:

- Environmental Registration or Permit
- Superficies licence

Application Process:

Environmental Registration or Water Permit (<https://www.riigiteataja.ee/en/eli/508102019001/consolide>) from Environmental Board.

- If your **annual production is under 1 tonne**:
 - Only **registration** is required (no state fee)
 - This applies to low-risk activities (e.g. mussels, seaweed) under §196 (6) of the Water Act
- If your **production exceeds 1 tonne*/year**:
 - You must apply for a **water permit** under §187 (15) of the Water Act.
- Additional permits may be required if:
 - The area is a **protected zone**
 - You plan to use **non-native species**

** In future, a permit will be required if more than 100 tons of seaweed or mussels are cultivated per year. For farms under 100 tons, a so-called "mini permit" or registration must be applied for instead. This process is shorter than the full permit procedure and does not include reporting or monitoring obligations. Additionally, there is no state fee, unlike the environmental permit, which requires a payment of €1,990. The regulation is expected to enter into force on September 1, 2025.*

Superficies licence (<https://www.riigiteataja.ee/en/eli/508102019001/consolide>) from Consumer Protection and Technical Regulatory Authority (TTJA).

- Required for any structure placed in public water not connected to the shore.
- Based on the Building Code, Section 3.
- Valid for up to 50 years.

Applications must:

- Be in free form, following §113³ of the Building Code.
- Include detailed information on the planned structure and location.
- Clearly explain the purpose and environmental context.

Process:

- TTJA initiates proceedings and publicly announces the intent to issue a permit.
- A 30–60 day period allows others to submit competing applications. If multiple applicants, an auction is held.
- Final decision made within 90 days after the announcement or auction.
- State fee: €2800 (according to State Fee Act §215¹³).

Special Considerations:

Estonian Marine Spatial Plan (MSP) at <https://www.agri.ee/sites/default/files/documents/2023-06/maritime-plan-memorandum-2021.pdf> can be used to identify zones for various marine uses — including areas specifically allocated for aquaculture.

Latvia

Regulatory Authorities:

- Ministry of Agriculture
- Cabinet of Ministers
- State Environmental Service
- Ministry of Economics

Key Permissions Required:

- There is no specific licensing for regenerative ocean farming
- License or permit for the use of the sea, issued by the Cabinet of Ministers (issued for a period of time not exceeding 30 years)

Application Process:

- The applicant submits an application and information to the Ministry of Agriculture
- Ministry of Agriculture evaluates submitted documents (30 days)
- Ministry of Agriculture prepares draft order on announcing area for tender (60 days)
- Cabinet of Ministers reviews and approves order (30 days)
- Ministry of Agriculture announces tender (30 days)
- Tender (30-60 days)
- Evaluation of application (30 days), announcement of winner
- Winner submits application to the State Environmental Service for EIA application if require
- Ministry of Agriculture prepares draft order on acceptance of activity and allocation of area (30 days)
- Cabinet of Ministers examines and approves order (30 days)
- Ministry of Agriculture notifies winner of allocating area (30 days)
- Winner pays state fee for use of licensed area at sea
- Ministry of Economy issues license to winner (30 days).
- The overall process could take at least approx. 400 days

Special Considerations:

- Maritime spatial planning (MSP)
- Marine protected areas (MPAs)
- Compliance with EU Regulations
- Local Community Engagement

Lithuania

Regulatory Authorities:

- Ministry of Agriculture
- Fisheries Service under the Ministry of Agriculture
- Ministry of Environment
- Environmental Protection Agency
- State Food and Veterinary Service

Key Permissions Required:

Lithuania lacks a licensing framework for activities related to regenerative ocean farming, which integrates aquaculture with environmental restoration. While specific permits depend on the nature of the involved activities, key permits may include:

- **Permit for Special Fishing in Marine Waters:** Issued by the Fisheries Service under the Ministry of Agriculture, this permit is necessary for activities such as scientific research, stock enhancement, or other non-commercial fishing purposes.
- **Environmental Impact Assessment (EIA):** Depending on the scale and potential environmental impact of the project, an EIA may be required. The Ministry of Environment oversees this process to ensure that proposed economic activities comply with environmental regulations.

Application Process:

- Preparation of documentation (gather necessary documents, including project plans, environmental assessments, and any agreements with third parties involved in the project)
- Submit Application: (apply for the Permit for Special Fishing in Marine Waters through the Fisheries Service)
- Submit applications for Water Abstraction and Wastewater Discharge Permits to the Environmental Protection Agency
- Obtain the Veterinary Approval Number from the State Food and Veterinary Service
- Conduct Environmental Impact Assessment (if required)

Special Considerations:

- Compliance with EU Regulations
- Local Community Engagement
- Sustainability Practices

Germany

Regulatory Authorities:

- Nature conservation authority of the district
- Local level water authorities
- Waterways and Shipping Office WSA

Key Permissions Required:

- Permission issued under environmental law
- Permission issued under water law
- Licence from the river and shipping police

Application Process:

- There are differences in the planning and implementation of ROFs in the German Baltic Sea between the federal states of Schleswig-Holstein and Mecklenburg-Vorpommern. It also depends on where the system is to be implemented and whether it is in municipal waters. In any case, the local nature conservation authority is the most important point of contact that must be consulted. It then usually coordinates the other authorities and authorisation processes.
- The CBB workshop showed that the private farming (for personal use) of algae in near-shore areas may only have to be reported but not authorised. This does not apply to the farming of mussels. No results are available for the application for and authorisation of private farming in Mecklenburg-Western Pomerania. So far, there are only facilities for research purposes.

Special Considerations:

- In order to get the permission issued under environmental law it is obligatory to commit to solely use native emergent species. According to §29 (1) NatSchAG M-V physical structures in coastal waters are not allowed to be constructed within a distance of 150m land and seaward from the mean waterline. An exception can be made for structures that serve nature protection goals: §29 (3) 3 Nat-SchAG M-V. The aim of the construction to remove nutrients and thereby improve the local water quality is in line with the national nature protection goals as well as with the EU Water Framework Directive targets.

Poland

Regulatory Authorities:

- Ministry of Agriculture and Rural Development (Fisheries Department)
- Maritime Office (Urząd Morski)
- General Directorate for Environmental Protection
- Chief Veterinary Inspectorate

Key permissions:

There is no specific legislation for regenerative ocean farming (ROF) in Poland to date. ROF is regulated under general aquaculture and maritime laws, requiring compliance with existing permits, environmental assessments and standards for finfish aquaculture. Depending on the project different permits might be required. The key permissions required include:

- A permit to use maritime space from the regional Maritime Office
- Registration and approval of the aquaculture operation from the Fisheries Department at the Ministry of Agriculture and Rural Development
- Approval of an environmental impact assessment from the General Directorate for Environmental Protection especially for larger or sensitive projects
- Food safety approval from the Chief Veterinary Inspectorate if the farm involves edible species

These permissions ensure legal use of sea areas, compliance with aquaculture regulations, environmental protection, and food safety standards.

Application process

- Develop a project plan, including species and location, ensuring the site is aligned with the Marine Spatial Plan
- Obtain permits from the Maritime Office for sea space use
- Register the aquaculture operation at the Ministry of Agriculture
- Obtain a permit from the Environmental Protection Directorate for environmental assessment,
- Obtain a permit from the Chief Veterinary Inspectorate if food production is involved
- Possibility to apply for EU funding (if relevant)
- Once approved, the farm can be built and operated with ongoing monitoring and regulatory compliance ensured.

Special Considerations

Regenerative ocean farming in Poland requires compliance with the national Marine Spatial Plan to avoid conflicts with shipping lanes, military zones and protected Natura 2000 areas. Environmental impact assessments are required for larger or sensitive projects to protect marine biodiversity and water quality. Species selection and farm design must consider local salinity and temperature conditions. Coordination with Polish Maritime Offices, the Ministry of Agriculture and Rural Development, and environmental authorities is essential to obtain permits and ensure compliance. Legal aspects include obtaining all necessary permits for maritime space use and aquaculture operations, adhering to environmental protection laws and following veterinary and food safety regulations when farming edible species. Strict compliance with these legal requirements is critical to operate within the framework of Polish and European Union maritime and aquaculture legislation.

REGISTRATION OF A HOBBY FARMING FACILITY

to the Fisheries Inspectorate in select department for the year [insert year]

Applicant's name, address, telephone number and email:

Name of applicant:

Street and no.:

Postcode and city:

Telephone number:

E-mail address:

Reserved for the Danish Fisheries Agency

Case no.:

Registration no.:

Received on date:

*1 Section 11 of Executive Order no. 1456 of 24 June 2021 on the farming
of mussels and oysters in the water column*

Important information:

- The hobby farming facility must not be set up until you have received a registration number from the Danish Fisheries Agency.
- All hobby farming equipment must be labelled in a visible place above the water with a secure, fixed, yellow tag with registration number, name and address of the user. Letters and numbers must be 1 cm high.
- If poles or stakes are used, the tag must be placed at least 1.2 metres above the water.
- Only one hobby farm can be registered per person.
- Hobby farming may only be carried out by catching naturally occurring spat of native species.
- The lines used for collecting spat must not exceed a total length of 10 metres.
- No feed or chemicals may be used in the facility.

The colour of the squares corresponds to the departments' control area on the map, which can be found on the back of this registration form.

■ Department in Frederikshavn
Sandholm 10, 9900 Frederikshavn

■ Department in Nykøbing Mors
N.A. Christensensvej 40, 7900 Nykøbing Mors

■ Department in Hvide Sande
Vesterhavsvej 302, 6830 Nørre Nebel

■ The branch in Ringsted
Frejasvej 1, 4100 Ringsted, Denmark
*Ringsted receives all registrations from the following
departments in Inspectorate East:*

- Department in Randers
Haraldsvej 60, 2nd floor, 8960 Randers SØ.
- The department in Kolding
Eltangvej 230, 6000 Kolding
- The department in Rønne
Munch Petersens Vej 8, 3700 Rønne

Species grown in the hobby farming facility:

☐ Mussels ☐ Oysters ☐ Other species: [*name species*]

The area number can be found on the map on the back of this application form.

The facility's geographical location of the facility:

Position:

Area no.

East Longitude: *2 decimal places° 2 decimal places.3 decimal places'*

Position is given in WGS-84 Datum, which is written in degrees, minutes and 1/1000 minutes.

Example: North latitude: 56° 26.233' - East longitude: 09° 15.036'

Signature:

Place:

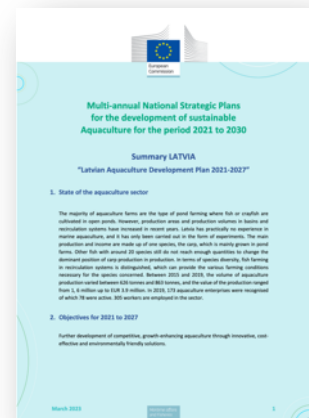
Date:

Annex II

Review of Baltic Multi-Annual National Strategic Plans (MNSPs) in the context of regenerative aquaculture development potential

Latvia

Latvian aquaculture to date is mainly pond-based carp or crayfish aquaculture, with only experimentation undertaken in marine areas. Between 2015 and 2019, the Latvian sector produced around 800 tonnes with a value up to 3.9 million € between 78 active companies with around 300 employees. The only objective is “further development of competitive, growth-enhancing aquaculture through innovative, cost-effective and environmentally friendly solutions”. The Latvian MSP does not restrict aquaculture, with decisions to be taken on a case-by-case basis. This includes operations on land. Administrative capacity for inland aquaculture is deemed to be sufficient, with no need for additional capacity. It also states that “appropriate investments should be encouraged to increase the added value of the products produced and to expand the range of aquaculture products and market outlets”. This includes encouraging “initiatives to develop the production of exported species and to expand the range of products offered on the **local market**”. Organic aquaculture, consumer awareness, education measures and local production are also mentioned. In terms of knowledge and innovation, pilot projects, data collection and “cooperation between scientific and aquaculture enterprises for the implementation of innovative solutions and methods in aquaculture” are also mentioned.



In summary, the impression given is that Latvia is “open for aquaculture business” both on land and at sea. However, it is at a very early stage of development, so innovation should come primarily from public-private research projects. The COOL BLUE BALTIC partners find that the Latvian MNSP shows potential and therefore scope for the development of regenerative aquaculture in land-based or marine locations. For example, *Fucus* restoration efforts are already being undertaken in the Gulf of Riga, and efforts are being made to develop so-called “sea gardens”, once funding can be secured.

Lithuania

The Lithuanian plan aims to promote a sustainable, smart, resilient, and **diversified** aquaculture sector, ensuring the supply of fish products and meeting environmental and climate objectives. In terms of growth targets, The volume of aquaculture production to be achieved in 2030: 8500 Tm (up from 4368 Tm in 2020) with a value of 26,5 million € (up from 13,2 million € in 2020). The organic aquaculture production will rise up to 1200 Tm and the number of enterprises in the aquaculture sector will be 75. However, **no significant expansion of aquaculture ponds through the establishment of new ponds is foreseen**. Similarly, **the development of marine aquaculture is not planned** “due to the ecological state of the Baltic Sea and other conditions state of the Baltic Sea”. Nonetheless, “well-managed” aquaculture is promoted, as well as aquaculture providing circular economy, energy efficiency and ecosystem services. **Producer Organisations** and marketing plans are also promoted to showcase Lithuanian aquaculture production, food sustainability and quality



control. Aquaculture for climate adaptation, mitigation and “environmental functions” and the stocking of public water bodies (such as sturgeon or *Acipenser oxyrinchus* in the Nemunas basin, or the EU’s Eel Recovery Plan) is also promoted. Restoration of biodiversity, organic aquaculture, **microalgae farming**, circular use of fish waste, **short supply chains**, **local production**, **low- and multi-trophic systems**, cross-border cooperation, “**algae technologies**”, investment and innovation are also mentioned, but only in vague terms. Many of these topics are well aligned with the concept of regenerative aquaculture but are lacking in clarity or direction.

Overall, the plan makes clear that no expansion of aquaculture on land or at sea is foreseen until 2030. Despite this, a wide range of measures are identified to support and promote aquaculture, many of which are well aligned with regenerative aquaculture. The MNSP therefore signals a contradiction in terms, with **no specific measures to foster aquaculture innovation** (such as integration into spatial plans). The impression is that aquaculture should be “promoted” and “supported”, but not developed, with a focus on small sustainability and efficiency gains. The COOL BLUE BALTIC partners find this plan to be inconsistent, inadequate and prohibitive, significantly lacking in ambition and ignoring the innate potential of aquaculture to contribute to economic growth and achieve environmental targets. Despite this, the mentioning of algae and low-/multi-trophic aquaculture are very welcome, though regenerative aquaculture may initially be confined inland or as an industrial symbiosis (e.g. IMTRAS) concept.

Poland

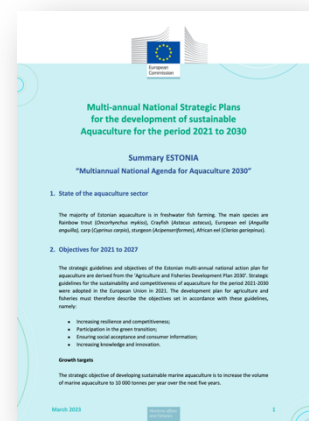
The Polish aquaculture sector is dominated by pond and RAS farming facilities, with a reported 39,600 Tm of biomass sold in 2021. The main objective is to increase and modernise production. Domestic production, processing and consumption are emphasised, alongside diversification, research, education and training to meet “new market criteria”. Restocking and introduction of “new” fish species are also mentioned, as well as “preserving the water retention and environmental potential of extensive/low-intensive aquaculture”. The plan aims to increase inland production to 50,000 Tm, of which 40,000 (80%) should go to domestic markets and 30,000 (60%) should be processed domestically, with wider domestic consumption (1.1kg/per capita) and a doubling of organic aquaculture by 2030. There are no measures in Poland's Strategic Plan for the key areas listed in the EU Strategic Guidelines. Improved spatial planning and mapping of areas suitable for aquaculture are identified as needs. In terms of administration, there is a need to set up “a **national aquaculture unit** working with all stakeholders (e.g. an aquaculture agency acting as a national contact point for all stakeholders, whose role would be to coordinate a one-stop shop for operators interested in aquaculture activities”. Also, “amending the law to create conditions conducive to the development of aquaculture (lower fees for water abstraction, removing problems with the definition of water discharged from production reservoirs, improving the carrying out of environmental impact assessments and issuing water permits, facilitating investment processes related to the construction of new facilities or their renovation. Under both animal welfare and climate adaptation, only mitigation measures for fish farming and promotion of RAS are mentioned. There is also a need for Polish practitioners to participate in national and international platforms. In terms of diversification, “investments in the implementation of innovative fish farming methods, the improvement of the quality of aquaculture products and the development of rearing and forward-looking fish species” is mentioned. For environmental performance, resource-efficient aquaculture, **subsidies for biodiversity**, water quality improvement, circular use of waste, innovative methods of fish farming, “**conservative**” **aquaculture of threatened species** and research on impacts are identified as needs. Improvements in distribution and sales is also mentioned, as well as increased **domestic consumption from artisanal producers** and improving the public image of aquaculture. Better coordination of data collection is indicated as a need to improve official statistics, as well as channelling training and research efforts to the aquaculture sector.



In summary, the Polish MNSP is focused exclusively on inland aquaculture. The suggestion to appoint a national contact point for aquaculture is welcome. However, the plan does not acknowledge the wide range of opportunities both inland and in marine environments for both economic and environmental development, such as multi-trophic aquaculture, algae cultivation or aquaculture for bioremediation such as nutrient uptake or wetland restoration. The COOL BLUE BALTIC partners find this plan to be lacking in both ambition and scope, also ignoring the full potential and versatility of aquaculture to meet economic and environmental targets. This indicates significant effort is required to make authorities aware of regenerative aquaculture. Nonetheless, there is scope for the development of regenerative aquaculture in Poland, especially inland.

Estonia

The Estonian aquaculture sector is dominated by freshwater aquaculture of trout, crayfish, eel, carp, sturgeon and catfish. The MNSP is derived from the Estonian “Agriculture and Fisheries Development Plan 2030” and the objectives are aligned with the EU strategic guidelines for aquaculture. In terms of targets, the strategic objective of developing **sustainable marine aquaculture** is to increase the volume of marine aquaculture to 10 000 Tm per year over the next five years. The Estonian MSO is well defined and includes maintaining a **good status of the marine environment is a cross-cutting principle**. Production and marketing plans shall be drawn up to enable **producer organisations**, through collective action, to direct their members towards more sustainable production. This will allow for increased market power and better planning of the production process if sufficient production capacity is available. In terms of environmental performance, water permits issued include **compensatory measures** for pollutants such as nutrient loading, as well as a detailed environmental impact assessment for each project. This is exemplified by the Red Strom fish farm, which includes co-cultivation of algae and mussels as a compensatory measure. The Estonian Ministry of Rural Affairs promotes increased domestic consumption of aquaculture products (“Fish well” campaign). The Fisheries Information Centre collects, analyses and shares information on aquaculture and the processing and marketing of aquaculture products.



Overall, the plan to expand marine aquaculture in Estonia is welcome and could enable the emergence of regenerative ocean farming, as well as the formation of Producer Organisations for better coordination of production. However, the COOL BLUE BALTIC co-assessment found that even the terminology for regenerative aquaculture in the Estonian language is missing. This partly explains why algae, bivalves, low- or multi-trophic systems are not mentioned in the plan. It also suggests that there are significant awareness-raising efforts to be made in order to bring regenerative aquaculture onto the political agenda. Nonetheless, the plan indicates potential for the development of ROF in Estonia.

Finland

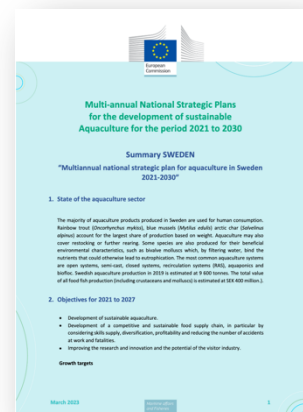
Finland produced around 14 400 Tm at a value of 73,3 million € between 237 companies in 2021. The main species is rainbow trout, with some other salmonids and pike-perch, as well as significant restocking efforts. There is significant offshore aquaculture as well as RAS. The objective is to increase production to 25 000 Tm, increase domestic consumption by 50% and raise the value to 146 million € by 2030. Finland plans to introduce “position management” and “**sea basin**” plans. It also calls for a “**single national entity** that brings together national and regional public authorities dealing with aquaculture”, currently fulfilled by an “Aquaculture Development Group”, which brings together public authorities and operators in the sector. Training for authorities on animal welfare including **shellfish** (which may apply to crustaceans and/or bivalves) is mentioned, as well as guidelines in the Standing Committee on Agricultural Research (SCAR-Fish). R&D and investment aid is also identified to **diversify aquaculture production**. In terms of environmental performance, developing sensitivity mapping of **species and habitats** to aquaculture pressures is identified, as well as determining the environmental **carrying capacity** of sites according to objective criteria and developing agreements and schemes for **site rotation and area management to reduce emissions** of nutrients and organic matter. The plan also supports the **diversification** of EU aquaculture to species with a higher environmental performance, by ensuring an appropriate policy framework and the use of EU funds to increase the value of this type of aquaculture in the market and throughout the value chain. In terms of climate adaptation, the plan calls for training of aquaculture practitioners and mitigation measures. Self-regulatory initiatives are also promoted, as well as **local consumption** in the Åland region. The plan also promotes the integration of the aquaculture sector in **local communities** and the development of synergies with other sectors. It aims to set up a framework of cooperation bringing together public authorities, industry, research and educational institutions to promote the development of **clusters for aquaculture**. Furthermore, it supports “research and development projects for the piloting of new technologies, innovation including new forms of cultivation and species such as **algae farming**, and monitoring/follow-up”.



In summary, the Finnish plan shows good potential for the integration of regenerative aquaculture innovation. This can mainly be achieved through research and development projects. The introduction of a single national entity for aquaculture coordination is also welcome. It could also be promoted as a compensatory environmental “add-on” to mitigate the impacts of finfish farming. However, low- and multi-trophic systems are not mentioned, and it is not clear whether shellfish refers to crustaceans such as crayfish or bivalves. Also, due to the low salinity, especially in northern Finnish waters, regenerative aquaculture of freshwater species such as duck mussels, freshwater microalgae or aquatic plants may be prioritised, while algae species such as *fucus* can be cultivated in the south, subject to viable business models.

Sweden

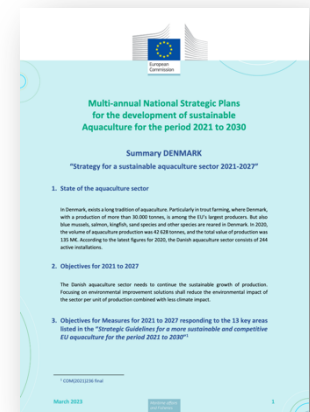
Sweden produced 9 600 Tm in 2019 at a value of ca. 36 million €. The main species are trout, mussels and arctic char, as well as some restocking efforts. Objectives include diversification and an increase of 5% per year up to 21 803 Tm by 2030, alongside 23 384 Tm for restocking of fish and crayfish. The plan aims to “**localise**” **aquaculture production** and including aquaculture designations in the next MSP cycle. In terms of administration, “**national coordination of permit and supervision processes**” shall help avoid duplication of examination and achieve shorter, time-limited processing times, as well as increased coordination of permit and supervision processes. The Swedish Agency for Economic and Regional Growth, the Swedish Board of Agriculture and the National Food Agency have developed a prototype of a **service for collective information on aquaculture**. The aim of the service is to enable entrepreneurs to conduct all dialogues with authorities, from initial to ongoing reporting on a common platform. In terms of climate adaptation, the Action Plan for the Development of Swedish Aquaculture 2021-2026 highlighted four measures related to climate change. The measure “*Environmental impact and benefits of aquaculture*” aims to reduce the negative environmental impact of aquaculture while at the same time exploiting the **environmental benefits** of more sustainable Swedish aquaculture throughout the value chain. Measures such as “*Digitalisation of Swedish aquaculture production*”, “*Development of production techniques and species*” and “*Nutrition and feed development*” are also linked to efforts to develop aquaculture towards greater climate adaptation. The plan also mentions “investments can also be made in **algae** that contribute to increased carbon removals”, including support for start-ups. Under the Maritime Fisheries and Aquaculture Programme, support will be provided for setting up aquaculture **producer organisations**. Regarding environmental performance, “the Maritime, Fisheries and Aquaculture Programme will offer support opportunities for projects developing new solutions to reduce the negative environmental impact or **increase the positive environmental impact** of aquaculture. Support will also be provided for the development of more environmentally friendly technologies in open systems and for investment in these technologies”. The action “*Development of production techniques and species*” proposes activities aimed at identifying new ones and supporting the development and establishment of aquaculture technologies and species with high potential based, inter alia, on **environmental viability**. The “*Training and Upskilling*” action includes a number of training and upskilling measures aimed at the general public. The Swedish strategy also promotes research that improves the understanding of **natural processes and their interactions**, as well as pressures and impacts on the environment and climate as well as the **productive capacity of ecosystems**.



In summary, both bivalves and algae are mentioned in the Swedish plan, which are both relevant to the development of European regenerative aquaculture. The integration of aquaculture into national MSP, with localised production is also promising. Also, there is a strong focus on positive environmental benefits of aquaculture, training and upskilling of both authorities and practitioners. This correlates with the current number of regenerative aquaculture initiatives emerging in Sweden in recent years, thanks to an enabling policy landscape. However, efforts are required to drive forward the concept of regenerative aquaculture and further define farming systems, species, governance and business models. For example and as described above, the aquaculture licensing process in Sweden is still fragmented and cumbersome for entrepreneurs and should be streamlined for the multiple different forms of aquaculture besides only finfish. The service prototype described may go some way to alleviating this barrier to growth.

Denmark

Denmark is one of the largest trout producers at ca. 30 000 Tm. In total, it produced 42 628 Tm in 2020 including mussels, across 244 enterprises. Objectives include reducing the environmental impact of the sector, such as “investments in climate solutions and purification technology to reduce the climate footprint of the aquaculture sector and emissions of **nitrogen, phosphorus and organic matter**”. There are currently no producer organisations in the aquaculture sector in Denmark, but the sector has the possibility to set up one or more **producer organisations**, with public funding available for this purpose. The plan specifically mentions the development of **low-trophic** and organic aquaculture, as well as **commercial seaweed production** and a new approach to **shellfish farming** by 2030. The plan also includes training and development projects, including “demonstration and testing projects for the green transition of aquaculture”.



In summary, Denmark shows the most fertile ground for the development of regenerative aquaculture of all the Baltic Member States. Dedicated initiatives for seaweed, shellfish and other low-trophic aquaculture are welcome, as well as the opportunity to establish a Danish Producer Organisation. Judging by the increasing number of existing commercial and non-commercial enterprises in Denmark combined with a long coastline and maritime cultural heritage, there is great potential for regenerative aquaculture to be further developed in Denmark. Barriers remain in the licensing process, as well as social acceptance of property owners in coastal areas. The cultivation platforms developed by COOL BLUE BALTIC partner HAV are a good practice example of how to drive social acceptance of regenerative aquaculture, in both urban as well as rural coastal environments. Also, a stronger business case is needed for regenerative aquaculture at multiple scales, as explored in the COOL BLUE Horizon CSA deliverable D1.4: “*Market analysis and business model canvas for each pilot region based on small-scale, low- or multi-trophic regenerative aquaculture*”.

Germany

Germany has a relatively small aquaculture industry despite its population size, comprising mainly inland diverse enterprises from aquaponics to pond culture and RAS (mainly carp and trout). The most significant marine aquaculture subsector is mussel farming, producing 19 400 Tm in 2019. Objectives include balancing economic growth with public welfare, enhancing local aquaculture products via regional marketing and climate adaptation. Inland objectives include improved planning processes and integration into building regulations. For the North Sea coast, the objective is to safeguard designations for **shellfish farming**. For the Baltic Sea coast, objectives include **designations for marine aquaculture** through dialogue with relevant federal institutions. Administrative plans for the Baltic Sea include “planning and legal certainty for investors and approval authorities”, namely the development of a water law “authority standard” for the approval of **IMTA**, as well as the designation of **shellfish production areas** between the states of Schleswig-Holstein and Mecklenburg-Vorpommern. In terms of climate adaptation, retrofitting existing facilities is mentioned, as well as adapted water management. The plan also mentions the establishment of an “**association of producers** in the processing of aquaculture products” to exploit “the synergy effects of **common processing structures** (machinery, personnel) and producing a stable and wide range of products”, as well as the establishment of **regional producer groups**. Certification is also mentioned, alongside increasing promoting initiatives to **diversify aquaculture businesses** and the “development of systems for the evaluation and restoration of the environmental performance of aquaculture”. Consumer awareness campaigns are included, as well as



increasing the value of **local aquaculture products** to domestic consumers. The plan also highlights support for FLAGs in which LEADER actors [...] can feed into local development processes and regional value chains, as well as integration of aquaculture actors into local development-processes (e.g. including FLAGs through the **CLLD principle**) and regional value chains. **Higher education, vocational and professional training** for aquaculture are also foreseen.

Overall, the prospects for regenerative aquaculture in Germany are generally positive. Plans for marine aquaculture in the Baltic Sea, in particular IMTA, are promising, as well as the multiple training opportunities and scope for regional Producer Organisations supported by CLLD. However, algae are not mentioned in the plan, though this may be implicit in IMTA. The plan encourages diversification of aquaculture businesses and adaptation to climate change, which offers an entry point for regenerative aquaculture moving forward.

In conclusion, the Baltic Member States demonstrating the most potential for the development of regenerative aquaculture are **Denmark, Sweden, Germany and Estonia**. Latvia and Finland also demonstrate openness to research and development. Poland and Lithuania seem to be the least open to the development of regenerative aquaculture in the Baltic Sea, though inland, freshwater or RAS-based regenerative aquaculture may present more opportunities. In all cases, development is hampered primarily by complex and fragmentary licensing processes, lack of definitions and administrative capacities. The plans of Finland and Poland and partly Sweden to create a **single national entity** for aquaculture coordination is a welcome step forward. The common licensing framework suggested below can be used by Member States as a baseline or reference to better understand the scope and breadth of aquaculture opportunities, while beginning to harmonise licensing procedures in line with national priorities and environmental contexts.

Annex III

Application template

Common EU application form for a regenerative aquaculture facility



Funded by
the European Union

The following form will be submitted to the COOLBLUE country facilitators, in order for applicants to be connected with the relevant authorities in their given country.

Rules

1. The aquaculture facility must not be set up until you have received a **registration number** from the relevant authority.
2. **All equipment used on site must be labelled** in a visible place above the water with a secure, fixed, yellow tag with registration number, name and address of the user. Letters and numbers must be at least 1 cm high.
3. If poles or stakes are used, the **contact information must be fastened at least 1.2 metres above the water.**
4. **Only one facility can be registered per person.** in the case of a company with multiple cultivation or restoration sites, there must be one manager per site. In the case of a cooperative, one responsible person must be nominated for each site.
5. **All employees or site visitors must be adequately insured and receive a safety briefing** before they access the site for the first time. This safety briefing must be repeated on a biannual basis (every 6 months)
6. Cultivation or restoration activities may only be carried out using seed material, spat or strains of native species **sourced within a radius of 10km of the cultivation site.** Seed material from the cultivation site may then be used in subsequent seasons to accommodate selective breeding.
7. **The total size of the facility may not exceed 5 hectares** (10.000 square metres)
8. **No feed, chemicals, pesticides or antibiotics may be used in or around the facility.**

Applicant's Name

First Name

Last Name

Occupation/Job Title of Applicant

Phone Number

Please enter a valid phone number.

Email

example@example.com

Date of Birth

MM-DD-YYYY



Date

Legal Entity / Name of Company

Legal Entity Address

Street Address

Street Address Line 2

City

State / Province

Postal / Zip Code

Please Select 

Country

Legal Signatory

Responsible authority



Species information (please give Latin species name)

- ☐ Macroalgae
- ☐ Bivalves
- ☐ Invertebrates
- ☐ Gastropods
- ☐ Crustaceans
- ☐ Coastal plants
- ☐ Integrated multi-trophic aquaculture (IMTA)
- ☐ Other (please specify)

Please indicate your business type:

- ☐ Charity
- ☐ Cooperative
- ☐ Non-profit
- ☐ Private company
- ☐ Other (please specify)

Intended activities or service provided (please specify)

- ☐ B2C consumer products
- ☐ B2C services (e.g. health services)
- ☐ B2G services (e.g. social services, monitoring and surveying)
- ☐ B2B products
- ☐ Ecosystem restoration services
- ☐ Environmental remediation services

Cultivation site location (coordinates)

Number of employees working on site

What is your anticipated annual turnover (€)

e.g., 23

What is size of the site?

e.g., 23

Type of moorings

- ☐ Helical / screw anchors
- ☐ Concrete blocks
- ☐ Mushroom anchor
- ☐ Other (please specify)

Farm design

- ☐ Single-line array
- ☐ 5-line array
- ☐ Catenary array
- ☐ Lantern nets
- ☐ Ear hanging
- ☐ Off-bottom / peg and line
- ☐ Gabions / cages
- ☐ Coastal platform / pontoon
- ☐ Other (please specify)

Do you have a seagoing vessel?

- ☐ Yes
- ☐ No

Vessel Information

	Model	Make	Year	Color	Type	License Plate #
1						
2						
3						

Duration of site lease

Season start (seeding)

MM-DD-YYYY



Date

Season end (harvest)

MM-DD-YYYY



Date

Applicant's Signature

Sign Here 



Clear

Date Signed

MM-DD-YYYY



Date

Annex IV

List of farm types

The below is taken from the recent EU4lgae report *“Business case and project recommendations on the development of regenerative ocean farming as a bioremediation measure in Europe”*:

Non-commercial biomass production	Commercial biomass production	Non-/commercial bioremediation services	Commercial support services
Small-medium non-commercial farm or “community sea garden” growing algae for research, education, citizen science or private use	Small-medium commercial farm growing algae for B2B/C	Restoration site growing seagrass as a public or private service	Enterprise producing biochar for carbon credits (e.g. in biostimulants)
Small-medium non-commercial farm or “community sea garden” growing bivalves for research, education, citizen science or private use	Small-medium commercial farm growing bivalves for B2B/C	Restoration site growing halophytes as a public or private service	Enterprise producing biogas from contaminated biomass
Small-medium non-commercial farm or “community sea garden” growing other molluscs (gastropods, polychaetes, echinoderms etc.) for research, education, citizen science or private use	Small-medium commercial farm growing other molluscs (gastropods, polychaetes, echinoderms etc.) for B2B/C	Restoration site with nature-based solutions (artificial reefs, mussel/oyster reefs, bioblocks, living sea walls, living breakwaters, wetland restoration etc.) as a public or private service	Enterprise growing and/or processing algae for nutrient credits (e.g. in feed or biostimulants)
Small-medium non-commercial farm or “community sea garden” growing halophytes or salt-tolerant plants for research, education or private use	Small-medium commercial farm growing halophytes or salt-tolerant plants for B2B/C	Restoration site supporting coral growth as a public or private service	Enterprise collecting and/or processing waste shells for valorisation (e.g. in feed or biostimulants)
Small-medium non-commercial farm or “community sea garden” growing 'novel food' species for research, education, citizen science or private use	Small-medium commercial farm growing single species for B2B/C	Restoration site restoring kelp or maerl beds (e.g. green gravel method) as a public or private service	Enterprise producing CaCO₃ from waste shells (e.g. for biomaterials, enhanced weathering or biostimulants)

Small-medium non-commercial mixed farm or “community sea garden” growing multiple species (IMTA) for research, education, citizen science or private use	Small-medium commercial mixed farm growing multiple species (IMTA) for B2B/C	Restoration site growing bivalves (e.g. native oysters) as a public or private service	Enterprise providing monitoring services for B2C/B/G
	Large-scale farm growing algae for B2B/C	Restoration site growing threatened or endangered species for ecosystem restoration (i.e. restocking)	Enterprise providing other support services (e.g. equipment, hatcheries, marine logistics, technology providers, coastal engineering, insurance, surveys, licensing, sales & marketing)
	Large-scale farm growing bivalves for B2B/C	Restoration site growing algae, mussels or other species for strategic decontamination, desalination, nutrient uptake or coastal resilience as a public or private service	
	Large-scale farm growing other molluscs (gastropods, polychaetes, echinoderms etc.) for B2B/C		
	Large-scale farm growing halophytes or salt-tolerant plants for B2B/C		
	Large-scale mixed farm growing multiple species (IMTA) for B2B/C		

Annex V

List of regenerative species for cultivation or restocking (non-exhaustive)

Species	Common name	Regenerative function(s)	Cultivability	Marketability
Seaweeds				
<i>Saccharina latissima</i>	Sugar kelp	Nutrient uptake pH regulation Shelter Food source	High	Medium
<i>Fucus vesiculosus</i>	Bladderwrack	Nutrient uptake pH regulation Shelter Food source	Medium	Medium
<i>Ulva sp.</i>	Sea lettuce	Nutrient uptake pH regulation Shelter Food source	Medium	Medium
<i>Chorda filum</i>	Sea lace	Nutrient uptake pH regulation Shelter Food source	unknown	unknown
<i>Palmaria palmata</i>	Dulse / Dillisk	Nutrient uptake pH regulation Shelter Food source	Low	Medium
<i>Porphyra sp.</i>	Nori / Laver	Nutrient uptake pH regulation Shelter Food source	Low	Medium
<i>Alaria esculenta</i>	Wakame / Dabberlocks / Winged Kelp	Nutrient uptake pH regulation Shelter Food source	High	Medium
Bivalves				
<i>Mytilus edulis</i>	Blue mussel	Nutrient uptake Turbidity HAB prevention Food source Reef formation	High	High
<i>Mytilus galloprovincialis</i>	Mediterranean mussel	Nutrient uptake Turbidity HAB prevention Food source Reef formation	High	High
<i>Magallana gigas</i>	Pacific oyster	Nutrient uptake Turbidity	Medium	High

		HAB prevention Food source Reef formation		
<i>Ostrea edulis</i>	Native oyster / flat oyster	Nutrient uptake Turbidity HAB prevention Food source Reef formation	Medium	High
<i>Anodonta sp.</i>	Duck mussel / Freshwater mussel	Nutrient uptake Turbidity HAB prevention Food source	Low	Low
<i>Cerastoderma edule</i>	Cockle	Nutrient uptake Turbidity HAB prevention Food source	Medium	High
<i>Ensis sp.</i>	Razor clam	Nutrient uptake Turbidity HAB prevention Food source	Low	Medium
<i>Pecten maximus</i>	King scallop	Nutrient uptake Turbidity HAB prevention Food source	Medium	High
<i>Aequipecten opercularis</i>	Queen scallop	Nutrient uptake Turbidity HAB prevention Food source	Medium	High
<i>Ruditapes decussatus</i>	Palourde clam	Nutrient uptake Turbidity HAB prevention Food source	Medium	Medium
Plants				
<i>Salicornia sp.</i>	Marsh samphire Sea asparagus	CO2 removal Nutrient uptake Sediment stabilisation	High	High
<i>Zostera sp.</i>	Sea grass	CO2 removal Nutrient uptake Sediment stabilisation	Medium	Medium
<i>Beta vulgaris</i>	Sea spinach	CO2 removal Nutrient uptake Sediment stabilisation	High	Low
<i>Crimbe maritima</i>	Sea kale	CO2 removal Nutrient uptake Sediment stabilisation	High	Low
<i>Hippophae rhamnoides</i>	Sea buckthorn	CO2 removal Nutrient uptake Sediment stabilisation	High	Medium
<i>Typha sp.</i>	Bulrush / Common reed	CO2 removal Nutrient uptake	High	Medium

		Sediment stabilisation		
<i>Mertensia maritima</i>	Oyster leaf	CO2 removal Nutrient uptake Sediment stabilisation	High	Low
<i>Tripolium pannonicum</i>	Sea aster	CO2 removal Nutrient uptake Sediment stabilisation	High	Low
<i>Halimione portulacoides</i>	Sea purslane	CO2 removal Nutrient uptake Sediment stabilisation	High	Low
<i>Soda inermis</i>	Agretti	CO2 removal Nutrient uptake Sediment stabilisation	High	Medium
Detritivores / Echinoderms				
<i>Hediste sp.</i>	Polychaete worm / Lugworm	Nutrient uptake Food source	Medium	Low
<i>Holothuria sp.</i>	Sea cucumber	Nutrient uptake Food source	Medium	High
<i>Echinus esculentus</i>	Sea urchin	Nutrient uptake Food source	Medium	Medium
Gastropods				
<i>Patella vulgata</i>	Limpet	Organic matter uptake Food source	Medium	Low
<i>Haliotis tuberculata</i>	Abalone	Organic matter uptake Food source	Medium	High
<i>Buccinum undatum</i>	Whelk	Organic matter uptake Food source	Medium	High
Crustaceans				
<i>Astacus astacus</i>	European crayfish	Organic matter uptake Food source	Medium	Medium
<i>Nephrops norvegicus</i>	Norway lobster / Dublin Bay prawn / langoustine	Organic matter uptake Food source	Low	High

Annex VI

Expression of interest form

Express your interest

Yes, I want to know more about regenerative ocean farming in my country. My primary area(s) of interest are:

- ☐ Commercial cultivation
- ☐ Community-based cultivation (nonprofit)
- ☐ Educational activities

If you see yourself as a future ocean farmer (commercially or for nonprofit purposes), do you have any idea what kind of species you would like to cultivate?

- ☐ Blue mussels
- ☐ Oysters
- ☐ Seaweed
- ☐ Other (describe)

Describe other species if relevant

Name *

Country *

Email *

Do you have any additional stuff you would like to share with us?

- ☐ Would you like to receive our (very seldomly) sent newsletter?
- ☐ Yes, please contact me. Your message will be forwarded to the national Cool Blue Facilitator in your country, who will get back to you as soon as possible.

Submit