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Implementing the Strategic Guidelines for EU aquaculture
Regulatory and administrative framework for aquaculture

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DISCLAIMER: This document reflects only the views of the Commission and is not of a legally binding nature. It has been prepared according to the methodology described in Annex 1. It rests with the EU Court of Justice to provide a definitive interpretation of relevant EU legislation.

LIST OF ACRONYMS

AAC	Aquaculture Advisory Council
BMar	Balcão Electrónico do Mar (*Electronic one-stop shop of the sea)*
BMLFUW	Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management
DFMR	Department of Fisheries and Marine Research of the Republic of Cyprus
DGRM	Portuguese Directorate-General of Natural Resources, Security and Maritime Services
EER	Electronic Environmental Registry
EIA	Environmental Impact Assessment
EMP	Environmental Monitoring Programme
EQS	Environmental Quality Standards
FAO	United Nations Food and Agricultural Organization
JACUCON	Spanish National Advisory Board for Inland Farming
JACUMAR	Spanish National Advisory Board for Marine Farming
MNSPA	Multiannual National Strategic Plan for Aquaculture
OMC	Open Method of Coordination
SEA	Strategic Environmental Assessment
TAPAS	Tools for Assessment and Planning of Aquaculture Sustainability (Horizon 2020 project)

1. INTRODUCTION

In May 2021, the European Commission adopted a *Communication on strategic guidelines for a more sustainable and competitive EU aquaculture for the period 2021 to 2030*([1]) ('the Strategic Guidelines'). These guidelines set the vision for EU aquaculture to grow into an even more competitive and resilient sector and become a global reference for sustainability by 2030. They are the result of extensive consultation with EU Member State experts on aquaculture and the Aquaculture Advisory Council (AAC) as well as a public consultation.

The Strategic Guidelines cover all issues that are relevant for the sustainable development of aquaculture in the EU and provide concrete recommendations and proposals for action to the Commission, Member States and the AAC. Among other actions, they propose that the Commission develops guidance documents on good practices on various aspects of aquaculture activities.

The Strategic Guidelines recognise that the complexity of the regulatory framework for the sector and the complexity and lack of predictability of licensing procedures can be important barriers to growth. The guidelines provide some recommendations to address these challenges. Moreover, the Strategic Guidelines, in Annex I section 2.1.2, call for the Commission to '*consolidate a guidance document on good practices for administrative procedures*'.

This staff working document elaborates further and in greater detail on the key recommendations on good practices outlined in the Strategic Guidelines to address unnecessary regulatory and administrative burden in the aquaculture sector. Annex 1 describes the methodology for its preparation.

The document describes in more detail and **consolidates good practices and tools on the regulatory framework and administrative procedures** related to aquaculture and illustrates them with concrete examples from Member States and non-EU countries. It seeks to offer relevant authorities in EU Member States and other policymakers potential solutions to simplify and streamline the regulatory and administrative framework for aquaculture and remove unnecessary regulatory and administrative burden.

This document aims to offer a **direct link between problem and solution**, providing to the extent possible a tailored approach to solving a specific problem related to the regulatory framework and administrative procedures in aquaculture as identified in the Strategic Guidelines.

Aquaculture is a sector that is subject to continuous innovation and technological development to better meet existing and emerging challenges. Some examples of innovative approaches are integrated multi-trophic aquaculture (IMTA), the expansion of algae farming or the combination of offshore renewable energy and aquaculture farms. There are currently no tailor-made regulatory and administrative practices on these innovative approaches. The

(1) Communication from the Commission to the European Parliament, the Council, the European Economic and Social Committee and the Committee of the Regions on the strategic guidelines for a more sustainable and competitive EU aquaculture for the period 2021 to 2030 (COM/2021/236 final) (Aquaculture guidelines (europa.eu)).

good practices in this staff working document will therefore be updated in the future to match progress in this area. The Commission will provide these updates via the EU Aquaculture Assistance Mechanism website ([2]).

It is important to note that the hyperlinks in this document are valid at the time of its publication. Updates to these hyperlinks might be necessary in the future and will also be provided via the EU Aquaculture Assistance Mechanism website.

2. KEY BOTTLENECKS

As explained in the Strategic Guidelines, key bottlenecks in the regulatory framework and in administrative procedures that slow down or impede the proper development of the sustainable aquaculture sector in the EU relate to **three main areas**: 1) legislation and institutional framework; 2) licensing process; and 3) social licence. Bottlenecks in these areas are described below. Each area includes a description of each bottleneck and outlines the impacts it causes for the stakeholders in the sector.

2.1. LEGISLATION AND INSTITUTIONAL FRAMEWORK

Definition
The EU legislative framework for aquaculture is a **complex one.** With the exception of legislation on animal health([3]), food safety([4]), and markets([5]), most EU legislation applicable to aquaculture is not specific to the sector. Applicable EU environmental legislation consists of wide-ranging EU Directives (e.g. the EU Water Framework Directive([6]), the Habitats Directive([7]), the EU Marine Strategy Framework Directive([8])) that Member State authorities have to transpose into national, regional, and local regulations applicable to the sector. As a result, a large part of the regulatory and

(2) aquaculture.ec.europa.eu
(3) Regulation (EU) 2016/429 of the European Parliament and of the Council of 9 March 2016 on transmissible animal diseases and amending and repealing certain acts in the area of animal health (Animal Health Law)
(4) Regulation (EC) No 178/2002 of the European Parliament and of the Council of 28 January 2002 laying down the general principles and requirements of food law, establishing the European Food Safety Authority and laying down procedures in matters of food safety.
(5) Regulation (EU) No 1379/2013 of the European Parliament and of the Council of 11 December 2013 on the common organisation of the markets in fishery and aquaculture products, amending Council Regulations (EC) No 1184/2006 and (EC) No 1224/2009 and repealing Council Regulation (EC) No 104/2000
(6) Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy.
(7) Council Directive 92/43/EEC of 21 May 1992 on the conservation of natural habitats and of wild fauna and flora
(8) Directive 2008/56/EC of the European Parliament and of the Council of 17 June 2008 establishing a framework for community action in the field of marine environmental policy (Marine Strategy Framework Directive).

institutional framework for the sector is decided at national, regional or local level.

Furthermore, whilst this regulatory framework must be aligned with the above-mentioned EU legislation, it may not always be consistent among Member States or even among authorities within the same Member State. This causes uncertainty among operators over the applicable legislation (and related processes and documentation) in the territory they are interested in developing or investing in.

At Member State level, there is often a **lack of a specific or coordinated legislative framework** for aquaculture development. Regulation can come from different authorities – ministries, agencies, etc. covering issues such as production, environmental performance, aquatic animal health and welfare, product quality control or health and safety. In the absence of specific national legislation on aquaculture operations, the sector is often governed by regulations with a wider scope, including agricultural, environmental, fisheries, food, industrial and consumer regulations.

Governance of aquaculture in Member States therefore falls within the responsibility of **several authorities and agencies** that have different time periods for decision-making, operational processes and sometimes overlapping responsibilities.

Increasing **competition for space and access to water** with other sectors also adds to the complexity of aquaculture development. The identification of sites and licensing of aquaculture farms are also often handled at regional or local level. This may lead to a lack of consistency in the requirements for allocation of space and access to water for aquaculture farms even within an individual Member State. The Strategic Guidelines provide some recommendations on coordinated spatial planning for aquaculture activities and call on the Commission (Annex 2.1.1) to '*develop a more detailed guidance document on the planning for space and access to water for marine, freshwater and land-based aquaculture'*. Bottlenecks linked to access to space and water for aquaculture will be addressed in two documents: (1) on planning of space and access to water for marine aquaculture; and (2) on access to space and water for freshwater and land-based aquaculture.

Furthermore, the regulatory framework often does not allow for sufficient flexibility for more innovative ways of aquaculture production.

One of the remaining challenges is regulation of the algae farming sector. Certain Member States and regions currently include algae farming within the scope of aquaculture, while others treat it as a separate area of competence.

In general, operators often find legislation to be disproportionate considering the size and scale of aquaculture production businesses and associated impacts when compared to other food production sectors.

Impact

The impact of the complexity of the regulatory framework and administrative procedures on the aquaculture sector may include:

- uncertainties and lack of information about the applicable law and related procedures;
- excessive administrative burden for both authorities and operators;
- lack of clarity on legal rights and obligations;
- inconsistent decisions by the administration;
- increased legal, management or consultancy costs for existing and potential operators;
- delays in the licensing process;
- challenges in operational and financial planning (including budgets, costing, capital expenditure and forecasting) due to uncertainties over time frames for operational development and consistent farming cycles;
- reduced investment and increased risk profiles for operators, including through lack of legal security relating to issues such as rights of tenure.

2.2.LICENSING PROCESS

Definition

For the purpose of this document, the **licensing process** is understood as the steps to obtain or renew a licence to operate in the aquaculture sector (e.g. by establishing a new farm or for an existing farm to continue its activities).

The licensing process can prove **lengthy** and frequently requires the **provision of extensive data and modelling**, which is costly. Both the cost and logistics can prove challenging for all operators, but particularly for Micro and Small and Medium-sized Enterprises (MSMEs), which account for the majority of the sector in the EU([9]).

The application process for obtaining (or renewing) an aquaculture licence can last more than 12 months. When the decision is appealed, the process can last 25 months or more. Most of the Member States do not define minimum and/or maximum timelines for the application process.

Operators are often unable to **check the compliance level** of their license application and there is a lack of information on expected fees and costs before the application is submitted.

Licences are allocated for a **shorter period** when compared to other food production

(9) The majority of the enterprises in the EU aquaculture sector are micro-enterprises with less than 10 employees. For a full sector breakdown: https://aquaculture.ec.europa.eu/knowledge-base/reports/economic-report-eu-aquaculture-stecf-22-17.

sectors. The duration of the licence can be shorter than the time needed to start the operation and witness full production cycles([10]). The renewal of a license is not ensured even when circumstances are unchanged. Furthermore, once a licence is obtained, most of the time there are no rights to transfer the licence.

On **Environmental Impact Assessment** (EIA), certain aquaculture projects fall under Annex II of the EIA Directive([11]). For such projects, Member States have to determine whether the project is to be made subject to an environmental impact assessment, ideally already at a planning stage applying the provisions of the Strategic Environmental Assessment Directive (SEA) ([12]). **Member States have a different approach to this determination** - either through a case-by-case examination or according to thresholds or criteria. Furthermore, although not legally required, reference models, maps or tools developed to assess the combined environmental impact of aquaculture or quantify aquaculture's environmental risk could be useful but are rarely available. Access to existing relevant data is also often not possible for operators despite the provisions of the EIA Directive.

Having a wide range of authorities involved in the licensing procedures (see section 2.1) entails **numerous and sometimes unclear requirements**. This causes uncertainty among operators, who often lack guidance or support to understand the steps to be followed or the documents to be submitted when applying for an aquaculture licence.

Impact

The impact related to the licensing process on potential operators includes:

- large degree of uncertainty over and lack of clarity on the timeline and outcome of the application process;
- increased costs in multiple steps of the process, presenting budgeting challenges:
    - significant legal, management or consultancy costs, at times duplicated and recurring;
    - increased costs of data provision as there is not always access to existing data;
    - increased costs linked to the requirement of environmental impact assessments, due to the absence of a standardised model or format.
- lengthy delays to the licensing procedure;
- creation of potential barriers for new entrants to the sector and operational challenges to MSME producers;

(10) In Sweden, licenses are granted for 10 years. With licensing processes taking up to 5 years to complete, operators are in a near permanent cycle of licensing, which makes planning, investment and development challenging. Considering growth cycles may take 2-3 years (and longer for other species, e.g. Atlantic halibut, turbot), this leaves only a limited number of production cycles per site licence.
(11) Directive 2011/92/EU of the European Parliament and of the Council of 13 December 2011 on the assessment of the effects of certain public and private projects on the environment. Annex II lists, among others, "intensive fish farming".
(12) Directive 2001/42/EC of the European Parliament and of the Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment.

- preventing strategic business planning, which challenges business development, affects the operators' risk and investment profiles and results in investment in the sector being less attractive than in other economic sectors;
- preventing the sector from embracing innovative ways of production.

2.3.SOCIAL LICENCE

Definition

Social licence([13]) **of aquaculture activities** is an important aspect in the sustainable development of the sector. However, there is often limited engagement between aquaculture production businesses and competent authorities, stakeholder groups and the public. This leads to the general public having a low level of knowledge of the sector and how it is managed, as well as a lack of awareness of the importance and potential of the sector as part of the broader economy and the wider food system. This lack of understanding and awareness may contribute to a negative perception of the sector and unjustified concerns about its impact on the economy, health, the environment, etc.

Some stakeholder groups consider that aquaculture development is in conflict with their interests. This is the case for example for riparian owners (with watercourses on, next to or under their property) and coastal owners or the commercial tourism sector (fearing that the landscape will be affected and their property will lose value), fishers (fearing competition) or sport fishing/angling societies (fearing that migratory wild fish stocks will be affected). These groups are therefore often opposed to the development of the aquaculture sector and might also promote a negative perception of the sector.

There is therefore a need to establish mechanisms to bring the public and other actors closer to the origin of the product and the farms and improve their knowledge and understanding of the sector.

An unfavourable perception of the aquaculture industry by interested groups and even by society at large inevitably affects the licensing process.

Guaranteeing transparency and share precise information and results is essential to support the development of the aquaculture sector. As recognised in the Strategic Guidelines, communication on aquaculture benefits and value is key to achieving social recognition and acceptance of the sector.

(13) 'Social licence' refers to a general understanding and acceptance on the part of the public of the need for and benefit of any given sector, i.e. an acknowledgement of a positive cost/benefit impact.

Impact

The impact on the aquaculture sector includes:

- delays in the licensing process due to opposition by other stakeholders during this process;
- perpetuation of a negative image of aquaculture production businesses and sites;
- low synergies with existing activities (e.g. fisheries, tourism, the processing industry) and protected areas;
- failing to optimise production potential and use sites within areas allocated to aquaculture production.

3. GOOD PRACTICES

This section describes in more detail relevant good practices and tools to implement the recommendations in the Strategic Guidelines to overcome bottlenecks related to the regulatory framework and administrative procedures. An overview of these good practices and tools is provided in the table below.

Table 1. Overview of regulatory and administrative procedures in aquaculture

BROAD BOTTLENECK AREA COVERED	GOOD PRACTICE	EXAMPLES	COUNTRY
Legislation and institutional framework	Harmonisation of legislation under a single law	Adoption of Law 4282/2014 'Development of Aquaculture and Other Provisions'	Greece
		Adoption of Law N.117(I)/2000 'The Aquaculture Act'	Cyprus
		Adoption of Law NN 130/2017 'The Aquaculture Act'	Croatia
	Establishment of a single national aquaculture entity	Establishment of the National Aquaculture Council	Greece
		Establishment of the Aquaculture Advisory Committee	Cyprus
		Establishment of the National Advisory Boards for Marine Farming (JACUMAR) and Inland Farming (JACUCON)	Spain
Licensing process	Creation of a one-stop shop for licensing procedures	Application of the 'one-stop shop' principle to each decentralised administration under the coordination of the Ministry of Rural Development and Food through the Directorate of Aquaculture	Greece
		Establishment of a one-stop shop at the County Council	Norway

BROAD BOTTLENECK AREA COVERED	GOOD PRACTICE	EXAMPLES	COUNTRY
	Flexible licensing	Permission for the use of novel or experimental equipment	Ireland
		Eco-technology/green licenses	Norway
	Preparation of an aquaculture licensing guidance document	Guidance document for the construction and operation of aquaculture facilities	Austria
		Guide on the procedures required for securing a 'Licence for the Establishment and Operation of a Fish Farm'	Cyprus
		Guide on the administrative procedures and requirements applicable to operators wishing to set up a business in the aquaculture sector	Lithuania
		List of guidance documents and summary cards on the main procedures for the authorisation of aquaculture farming in each Autonomous Community	Spain
	Facilitating compliance with environmental and water protection requirements	Adoption of a framework for the instalment, development and operation of sustainable marine offshore aquaculture units	Cyprus
		Adoption of Regulation No. 17 for aquaculture on 'The water protection requirements for aquaculture as well as the limit values for pollutant concentration of effluent water from aquaculture and the requirements for	Estonia

BROAD BOTTLENECK AREA COVERED	GOOD PRACTICE	EXAMPLES	COUNTRY
		discharge of such water into a recipient and monitoring'	
		Revision of the environmental monitoring programme and development of environmental quality standards	Malta
	Digitalisation of services (provision of information, support and technical assistance)	Establishment of the Flemish Aquaculture Platform	Belgium
		Establishment of a website for Sweden's aquaculture and creation of a digital licensing registration checklist	Sweden
		Setting up of the 'Balcão Electrónico do Mar' (BMar) *(the electronic one-stop shop of the sea)*	Portugal
		Creation of the Electronic Environmental Registry (EER)	Greece
		Establishment of REPAMO, the online network for monitoring the state of health of marine molluscs in France	France
Social licence	Consultation of local stakeholders	The Clyde Regional Marine Plan	United Kingdom (Scotland)
	Launch of a national aquaculture communication campaign	Launching of the communication campaign 'Aquaculture of Spain'	Spain
		Development of the national communication campaign 'Farmed in the EU'	Lithuania

BROAD BOTTLENECK AREA COVERED	GOOD PRACTICE	EXAMPLES	COUNTRY
		Promotion of aquaculture through ‘Ryba domácí- Fish at Home’, the ‘Ryba na talíř- Fish on a plate’	Czechia
		Adoption of the programme for the promotion of domestic fish	Finland

3.1. LEGISLATION AND INSTITUTIONAL FRAMEWORK

3.1.1. HARMONISATION OF LEGISLATION UNDER A SINGLE LAW

Description

The Strategic Guidelines recommend streamlining and harmonise, to the extent possible legislation and administrative guidance by "***adopting a single piece of national legislation gathering all relevant aspects***"

Good practices show that this single piece of legislation could include:

- a description of how the aquaculture sector fits into broader policies and strategies (e.g. sustainable food systems, blue economy, marine strategies, river basin management plans, protection of the (marine) environment) and contributes to broader objectives;
- a definition of aquaculture-related concepts;
- clear objectives (e.g. sustainable development of the sector) and scope (e.g. type(s) of aquaculture covered by the law) of the legislation;
- a regular update/revision of the multi-annual national strategic plan for aquaculture (MNSPA);
- the procedures and requirements for determining and allocating suitable space and access to water for aquaculture activities;
- the competent authorities and institutional support involved in licensing procedures, specifying their time frames for dealing with applications for new licences or the renewal of existing licences;
- the procedures and requirements to grant and renew licences to establish aquaculture activities, including the introduction of a pre-application phase and/or establishing a one-stop shop for licensing procedures ([14]);
- where appropriate, establish more flexible licensing procedures and requirements for aquaculture activities with a proven lower environmental impact and/or which offer environmental services (e.g. low trophic aquaculture, aquaculture associated with ecosystem service maintenance, integrated multitrophic aquaculture, licences for using ecotechnology or green licences)([15]);
- the duration of licences for aquaculture activities;
- conditions for long-term licensing, with regular monitoring, *ad hoc* control checks

(14) See factsheet on 'Creation of a one-stop shop for licencing procedures' (section 3.2.1).
(15) See factsheet on 'Flexible licensing' (Section 3.2.2).

and sanctions for non-compliance with established conditions (including revocation);

- the establishment of a national aquaculture entity (e.g. board, council) ([16]);
- the requirements for operating aquaculture facilities, including those related to environmental protection, animal health and welfare, and water use;
- inspection services and their responsibilities, as well as enforcement procedures to impose administrative sanctions where necessary;
- obligations on data collection and reporting ([17]).

According to regulatory good practices, the drafting process of this legislation should involve the sector and relevant stakeholders through targeted consultations at an early stage, via multiple public presentations, or any other way suitable for the national, regional or local situation.

When drafting legislation, the experiences of other countries in drafting legislation on aquaculture and, where necessary, technical assistance could be sought to ensure all aspects of aquaculture are well dealt with.

Examples of application	
Greece 	In 2014, Greece adopted and enforced **Law 4282/2014 'Development of Aquaculture and Other Provisions'** amended by Laws 4711/2020 (Article 1) and 4691/2020 (Article 13). It establishes the basic law of the country's aquaculture sector under one single piece of national legislation.
Cyprus 	In 2000, Cyprus adopted and enforced **Law N.117(I)/2000 'The Aquaculture Act'** amended by Laws N.189(I)/2002 and N.18(I)/2010. It establishes the framework for installing, developing, and operating marine offshore aquaculture units.
Croatia 	In 2018, Croatia adopted and enforced **Law NN 130/2017 'The Aquaculture Act'** amended by Laws NN 111/2018 and NN 144/2020. It establishes the legal framework of the country's aquaculture sector.

(16) See factsheet on 'Establishment of a single national aquaculture entity' (section 3.1.2).

(17) In some cases, for very specific requirements on aquaculture, it might be enough to make a cross-reference to a specific provision in another piece of legislation.

Benefits/impact

Having a single piece of legislation for a country's aquaculture sector facilitates transparency and understanding of legal requirements and applicable procedures for both operators and authorities, while reducing the burden and time of licensing procedures as well as associated costs.

In the case of Greece, the main benefit of harmonising the legislation into a single law was to simplify licensing procedures and procedures for renewing a licence.

In addition, a single piece of legislation creates a ripple effect on other non-administrative aspects. Among other things, it i) provides potential entrepreneurs and operators with legal certainty on the conditions for engaging in aquaculture activities; ii) attracts more investment to the sector as it clarifies the framework for private and public funding; and iii) boosts sector competitiveness, among other things by ensuring that a place for the sector among other competing activities on the coast or, on freshwater (e.g., urban development, fishing, ports, tourism) encourages the expansion of the aquaculture market and strengthens the position of companies in the market.

Implementation challenges

Establishing the appropriate legal framework to promote the sustainable, socially acceptable, and financially viable development of aquaculture was particularly challenging for the Cypriot government. It aimed to provide an investment-friendly environment, while at the same time answering the general public's concerns about the sector's environmental footprint. This was overcome by examining other countries' legislation as well as the assistance provided by the UN Food and Agricultural Organization (FAO) to complement the in-house expertise of its Department of Fisheries and Marine Research (DFMR).

Harmonising the legislation of different competent authorities and adopting a single law takes up time and resources. Greek authorities, for instance, took more than 4 years to reach a common solution. This exercise allowed them to simplify their licensing procedures and improve other administrative aspects of the sector.

Countries that choose to implement this good practice may also encounter governing and coordinating challenges related to reconciling the different requirements and points of view from all relevant aquaculture actors. This is why it is important to involve stakeholders early in the process.

Further information

- Law 4282/2014, Development of Aquaculture and Other Provisions (2014), Greece: http://www.alieia.minagric.gr/sites/default/files/basicPageFiles/%CE%A6%CE%95%CE%9A%20182%20%CE%91%20%CE%BD4282%20_2014.pdf

- The Aquaculture Act of 2000 (117(I)/2000) (2000), Cyprus: http://www.moa.gov.cy/moa/dfmr/dfmr.nsf/All/13FAF5D9629CB0AC42257D5800391B51/$file/N.117(I).2000.pdf?OpenElement

- Aquaculture Act NN 130/2017 (2017), Croatia: https://narodne-novine.nn.hr/clanci/sluzbeni/2017_12_130_2983.html

3.1.2. ESTABLISHEMENT OF A SINGLE NATIONAL AQUACULTURE ENTITY

Description

The Strategic Guidelines recommend Member States to establish "***a single national aquaculture entity gathering all the different relevant authorities with responsibilities for aquaculture***". The goal of this entity would be to **address/overcome challenges and assess opportunities/prospects** for the sustainable development of the sector. It would be responsible for:

- facilitating and coordinating the work of the authorities involved in the planning, licensing and monitoring of aquaculture activities;
- providing advice on policy development in the field of aquaculture;
- discussing matters related to aquaculture involving those directly affected.

The national authority mainly responsible for the sector could lead this entity. As recommended in the Strategic Guidelines, it should involve other authorities responsible for aspects related to the sector and relevant stakeholders, if and when needed, to discuss and integrate their views in a timely manner. Examples of relevant members could be:

- representatives of the regional/local authorities in charge of aquaculture;
- representatives of other competent authorities linked to or affected by the aquaculture sector (e.g. planning, development, conservation and management of coastal and inland areas, environmental, water, coastal, rural, animal health and welfare authorities, food safety, markets);
- industry representatives not only from aquaculture but also from other relevant industry sectors where necessary (e.g. technology or feed producers, processors,

retailers);

- representatives of environmental, consumer and coastal and rural development organisations;
- scientists from research and educational institutions.

For this entity to be effective, it could meet (in person and/or online) at least once a year to discuss matters relating to aquaculture and exchange views on other issues.

While the decisions do not have to be binding, members would be expected to be committed to them. Decisions are therefore expected to influence institutions and stakeholders. This could result in institutional and administrative adjustments as well as actions in relation to government policy, especially where specific measures might be identified.

Examples of application	
Greece 	The Aquaculture Law (Law 4282/2014 'Development of Aquaculture and Other Provisions' amended by Laws 4711/2020 (Article 1) and 4691/2020 (Article 13)) establishes a **National Aquaculture Council** to provide advice to the Minister of Rural Development and Food on matters of policy development in the field of aquaculture. The Council is chaired by the Secretary General of the Ministry of Rural Development and Food, and the Head of the Directorate-General for Fisheries of the Ministry is one of its members. Other Council members include representatives of other relevant Directorates of the Ministry; the Ministry of Environment, Energy and Climate Change; industry representatives; the Geotechnical Chamber of Greece; environmental and consumer organisations; scientists from research and educational institutions; and other field experts.
Cyprus 	The Aquaculture Act (Law N.117(I)/2000 amended by Laws N.189(I)/2002 and N.18(I)/2010)) established an **Aquaculture Advisory Committee** to promote policies on aquaculture and set requirements for obtaining licences, as well as for the proper functioning of an aquaculture farm. The Committee is chaired by the Director of the Department of Fisheries and Marine Research and is composed of a representative of the Director-General for European Programmes, Coordination and Development; a representative of the Ministry of Energy, Commerce, Industry and Tourism; a representative from the veterinary services and animal protection and welfare services; four representatives of aquaculture farmers appointed by the Minister, in consultation with their professional organisations; four representatives of rural organisations appointed by the Minister; and a representative of the Cyprus Association of professional fishers, also appointed by the Minister.

Spain 	To ensure and promote shared and harmonised criteria among the Spanish Autonomous Communities in performing their responsibilities in the aquaculture sector, Article 27 of Law 23/1984 on marine farming established the **National Advisory Board for Marine Farming (JACUMAR)**. This Board, together with the **National Advisory Board for Inland Farming (JACUCON)**, acts as a stable tool for cross-cutting collaboration and serves as a basis for improving cooperation between administrations, sectoral organisations and other actors involved in the aquaculture sector. JACUMAR is presided by the General Secretary for Fisheries. The General Director of each Autonomous Community with responsibilities in aquaculture are also advisory members.

Benefits/impact

Establishing a single national aquaculture entity helps establish a 'culture of cooperation', improve communication and information flow between authorities with responsibilities in aquaculture while boosting their cooperation and coordination with sectoral organisations and other stakeholders. As a result, decision-making processes as well as the search for solutions to aquaculture challenges are simplified. In addition, existing data and information can be more easily shared among different authorities and actors, avoiding duplication of data and knowledge collection.

For instance, through its advisory boards JACUMAR and JACUCON, Spain has intensified the level of involvement of all parties in joint work and the fluid exchange of knowledge, especially when it comes to the development of the Marine Spatial Plan for Aquaculture. This was done in a highly coordinated manner with all Autonomous communities, which had a very positive effect on the final proposal agreed.

Implementation challenges

When setting up a national aquaculture entity, it can be difficult to decide which representatives from the competent authorities to include, as there are authorities that are difficult to link to a specific industry but may be relevant for some aspects of aquaculture. One solution could be to invite them to meetings and discussions at the request of members of the national aquaculture body, when necessary.

This good practice may also take up time and resources as it requires the cooperation of many relevant stakeholders driven by different interests and concerns. It may therefore be difficult to schedule meetings convenient enough for all to attend and provide enough time for all to participate and give their opinions. Nevertheless, this can be overcome with good planning.

Further information

- Law 4282/2014, Development of Aquaculture and Other Provisions (2014), Greece: http://www.alieia.minagric.gr/sites/default/files/basicPageFiles/%CE%A6%CE%95%CE%9A%20182%20%CE%91%20%CE%BD4282%20_2014.pdf

- The Aquaculture Act of 2000 (117(I)/2000), Cyprus: http://www.moa.gov.cy/moa/dfmr/dfmr.nsf/All/13FAF5D9629CB0AC42257D5800391B51/$file/N.117(I).2000.pdf?OpenElement

- JACUMAR (1984), Ministry of Agriculture, Fisheries and Food, Spain: https://www.mapa.gob.es/es/pesca/temas/acuicultura/junta-asesora-de-cultivos-marinos/

3.2. LICENSING PROCESS

3.2.1. CREATION OF A ONE-STOP SHOP FOR LICENSING PROCEDURES

Description

The Strategic Guidelines refer to "***setting up a 'one-stop shop' system for aquaculture licences, which facilitates both transparency on the licensing process and interaction between the applicant and the decision-making authorities***". This system helps standardise and streamline aquaculture licensing procedures and allows operators to submit all required documents to renew or apply for a licence in one place. The creation of a digital platform accompanying this one-stop shop makes it easier to submit documents (see section 3.2.4 'Digitalisation of services').

When possible, the one-stop shop could be responsible for:

- a pre-application phase in licensing. The introduction of this phase allows to initiate discussions with licensing authorities and ensure that accurate information is available to them before submitting the full application, identify complex issues, and provide advice to operators to enable a more efficient and focused application. The more natural place for this phase to be performed is therefore the one-stop shop.

- deciding on most simple/straightforward applications or, if not possible, it could perform a pre-screening of applications on behalf of the competent authorities, which would then take a decision on that basis.

Therefore, the tasks to be performed by the single one-stop shop may be the following:

- centralise the licensing process;
- coordinate the agencies involved, check for coherence and prevent potential overlaps

in the process;

- compile and consider the application and the required documentation;
- assess the application and/or decide on it. When necessary, it also forwards the application to other authorities relevant to the assessment of specific aspects, such as environmental impact or land/sea utilisation requirements;
- communicate the final decision to the applicant in one document covering all aspects and within a single timeline across all authorities involved.

The benefits of a one-stop shop would be best ensured if there are: i) indicators to monitor the annual impact/progress of the licensing process (e.g. number of licences issued, average time for processing licence applications, etc.); ii) maximum timelines for the application process; and iii) clear procedures for appeals.

As much as these are characteristics common to every good licensing procedure, it is of utmost importance that they are clear for the one-stop shop to generate trust and confidence among users.

Examples of application

Greece 	The adoption of Law 4282/2014 **'Development of Aquaculture and Other Provisions'** in 2014 introduced the establishment of one-stop shops for licensing procedures for the installation of aquaculture units. Since then, operators submit all required documents to apply for an approval for the establishment of an aquaculture unit to the single authority of the decentralised administration in which the unit is to be located.
Norway 	The **Aquaculture Act** entered into force in 2006. It designated the **County Council** as the authority responsible for receiving licence applications. The County Council functions as a one-stop shop responsible for coordinating the comments from all the authorities involved in the assessment of an application and is the body that makes the final administrative decisions. The Norwegian one-stop shop model creates a single-point licensing system under which all the requirements of the procedure are covered: environmental standards, land utilisation, registration, transfer, and mortgaging of licences, as well as control and enforcement.

Benefits/impact

The establishment of the model of a one-stop shop to process and complete the licensing procedure promotes communication and coordination between authorities and facilitates interaction between operators and authorities.

It avoids unnecessary difficulty and confusion for operators, reduces administrative burden and cost, and speeds up decision-making. The time frame in Norway for processing applications is 26 weeks for straightforward applications.

In Greece, the previous institutional framework for aquaculture approval licences was characterised by heavy administrative burden and delays requiring the involvement of around 10 to 14 authorities with overlapping responsibilities. After the establishment of a one-stop shop model, licensing processes have been delegated to a single authority, which has streamlined procedures.

Implementation challenges

The establishment of one-stop shops may present some difficulties to Member States. For example, one of the challenges encountered by Greece is the compliance of all competent authorities with time limits.

Moreover, if the licensing procedure is decentralised to the regional authorities, this may raise governance challenges in terms of coordination among involved authorities or deciding at which territorial/competence level this one-stop shop should be established (national, regional, local).

Further information

- Law 4282/2014 Development of Aquaculture and Other Provisions (2014), Greece: http://www.alieia.minagric.gr/sites/default/files/basicPageFiles/%CE%A6%CE%95%CE%9A%20182%20%CE%91%20%CE%BD4282%20_2014.pdf

- The Norwegian Aquaculture Act (2005): https://www.regjeringen.no/globalassets/upload/kilde/fkd/reg/2005/0001/ddd/pdfv/255327-l-0525_akvakulturloveneng.pdf

3.2.2. FLEXIBLE LICENSING

Description

The Strategic Guidelines stress the need to bring innovation to the aquaculture sector. Therefore, good regulatory practices should be enabling and not impede or prevent innovation. Specific provisions could facilitate innovation which adds value beyond existing practices (e.g. in terms of environmental performance).

Flexible licensing allows for adaptability and adjustments in aquaculture operations. It requires a specific governance approach where the design of different types of licence incorporate environmental regulation, allow industry growth and ensure the efficient use of resources.

Some key aspects to take into account include i) periodic reviews; ii) adaptive management (this means that if unexpected issues or environmental concerns arise, changes can be made to the licence); iii) transferable licences; iv) performance-based criteria; and v) contingency plans.

In practical terms, authorities can opt for an annexed structure to the regular aquaculture licence. This option can fulfil all the objectives:

- The principles and parameters of the licence are clearly defined in the central terms of the licence document. These are separated from the Technical Annexes, which are annexed to the licence.
- The Technical Annex details the parameters within which there is flexibility to adjust the licence, following approval by the regulator.
- Annexes can be amended (the procedure to be defined by the Member States) without the need to fully amend the licence itself.

When this document was being prepared, it was not possible to identify an example of good practice in the implementation of this type of flexible licence. However, there are some examples of eco-technology/green licences.

Eco-technology/green licences ([18]): These licences are designed as an industrial-scale 'proof of concept' either for new rules or for new technology standards that could become part of the normal production licence at a later stage. The goal is to encourage the adoption of environmentally friendly practices and technologies. They need to be distinguished from research licences. Some of the features of the process related to eco-technology/green licences are described below:

- licences are awarded by auction or through competitive bidding;
- a threshold for discharge criteria (e.g. zero discharge of eggs and sea lice and minimum threshold of sludge) is established;
- a threshold for maximum allowable biomass is established;
- the licence has a specific duration, with requirements on rate of technology use and time;
- there are criteria to assess the innovation of applications (e.g. 'innovation points' related to specific environmental impacts).
-

(18) Eco-technology, also known as eco-friendly technology or green technology, refers to the use of environmentally sustainable and responsible practices and innovations.

Examples of application	
Ireland 	Section 67B of the 1997 Fisheries (Amendment) Act allows permit licence holders to use novel or experimental equipment within the licensed area for a specified period of time. Permission can only be granted under Section 67B if, after consultation with scientific advisers the Marine Institute, and on the basis of technical advice from the Department's Marine Engineering Division, the Minister is satisfied that the use of the novel or experimental equipment will have no greater environmental or visual impact than that which existed before it was introduced and used.
Norway 	Norway has experienced a progression of green licences. They incorporate rules to reduce the environmental impact of salmon farming, but also encourage sector growth based on technical advances. Green licences (2013) allowed producers to expand production if they adopted new solutions to reduce sea lice and escapes. Development licences (2015) facilitated the development of technology that solved environmental and area challenges. This was a temporary scheme for projects that involve significant innovation and investments, such as the prevention of escapes. Eco-technology licences (2021) differ from the two previous licences in that they promote technology that can reduce several environmental impacts and can be a yearly arrangement. They have specific criteria such as: • they can be awarded by auction (with a prequalification) or through an innovation competition; • the regulations require zero discharge of eggs and sea lice as well as a minimum of 60% accumulation of sludge/discharge; • 15 000 tonnes maximum allowable biomass can be awarded in the first round, and the licences are limited to 20 years, but require that the technology must be in use for a third of the biomass within 3 years; • applications are assessed by 'innovation points' related to specific environmental impacts – collection of sludge (degree of; 0–6 points), electrification of feed barge (1 point), no use of copper (1 point), and fish labelling for traceability (1 point).
Benefits/impact	
This approach recognises that aquaculture is a dynamic industry. It incentivises the development of the sector and its adherence to innovative technologies and methods that, among others, could improve efficiency, reduce environmental impact, and improve the sustainability of activities.	

It allows regulators to approve amendments that do not require full review to the existing licence.

In the short term, this could be a good solution to allow algae production on current licences for fish and shellfish. This could help to promote the development of multi-trophic aquaculture.

Eco-technology/green licences allow for full-scale production volume while implementing the updated environmental rules. In this way, they not only provide industrial-scale technology validation, but also allow growth in the production sector.

Implementation challenges

Several key questions and associated challenges arise with this type of licence, including the type of criteria and requirements to be set, whether they are adapted to the specific circumstances, are standard, or a mix of both. The decision takes into account the administrative burden for the authority and the applicant. Some of the questions that an authority might face include:

- is this licensing available only for lower production volume/density?
- what should be its cost compared to full production licences?
- should they be restricted to applications within an allocated zone for aquaculture?
- what criteria should be used for the length of the licence? number of production cycles? duration?
- given that product might go to market, should there be limits (and fixed prices) on production?
- what insurance mechanisms (or other system) should be attributed for loss in production?

When this document was being prepared, there were not enough examples of implementation of this type of licence to provide a standardised response to these questions.

Further information

- IMPAQT policy brief: https://impaqtproject.eu/wp-content/uploads/2022/01/IMPAQT-IMTA-Policy-Brief-FINAL.pdf

- Ireland: Aquaculture and Foreshore Management Division: https://www.gov.ie/en/publication/fcd20-aquaculture-foreshore-management/

- Norway: Aquaculture policy: Designing licences for environmental regulation. Osmundsen (2022). https://www.sciencedirect.com/science/article/pii/S0308597X22000252?via%3Dihub

3.2.3. PREPARATION OF AN AQUACULTURE LICENSING GUIDANCE DOCUMENT

Description

The Strategic Guidelines stress the need for transparency and clarity when it comes to legislation and administrative procedures applicable to aquaculture. Potential operators involved in the licensing process can be supported by a concise guidance document. This can describe the steps to be taken to get started in the aquaculture sector, clearly presenting all the different phases and requirements of the licensing process for operators, from the pre-application phase to the decision phase. This document could also:

- provide information on the authorities involved at each step of the way;
- specify the time frame of the process;
- include details on the financial costs to be incurred;
- include a checklist of all requirements related to the operation, including those related to environmental protection and water use, and additional authorisations required (e.g. if the operations involve building infrastructure on land). Where existing, it should take into account guidance documents published by the European Commission on relevant EU requirements ([19]);
- provide information on useful tools to support operators during the various phases of the licensing process, including site selection, impact assessment or monitoring;
- provide an application form/template together with a list of documents to be submitted;
- include at the end of the document a flow chart summarising all the procedures for the licence concession.

For it to be useful and practical, the guidance document should be short and concise, compile all the information, be well structured and aligned with the different phases, written in user-friendly language, and presented in a visually appealing way. Flow charts indicating the actors involved and the time limits for each procedural step are a very useful tool to present procedures in an easy manner. The relevant authority may upload this document in its official site to make it easier to access.

(19) For example, European Commission, Directorate-General for Environment, *Guidance on aquaculture and Natura 2000 – Sustainable aquaculture activities in the context of the Natura 2000 Network*, Publications Office, 2019, https://data.europa.eu/doi/10.2779/34131

Examples of application	
Austria 	In 2012, the Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW) issued a **guidance document for the construction and operation of aquaculture facilities**. Drawn up by a large group of experts, the document aims to support planners and operators design their aquaculture facility projects.
Cyprus 	In 2021, the Cypriot Department of Fisheries and Marine Research (DFMR) of the Ministry of Agriculture, Rural Development and Environment issued on their website a **guide describing the procedures required for securing a licence for the establishment and operation of a fish farm**. This guide aims to inform interested parties of the procedures and licences required for establishing and operating offshore and onshore aquaculture farms.
Lithuania 	The Lithuanian Ministry of Agriculture issued on their website a **guide detailing the administrative procedures and requirements applicable to operators wishing to set up a business in the aquaculture sector**. This document aims for a clearer and better understanding of the legislation and therefore details the steps to be taken to get started in the sector.
Spain 	The Spanish General Secretariat for Fisheries of the Ministry of Agriculture, Fisheries and Food, together with the regional authorities responsible for aquaculture, issued on their website a **list of guidance documents and summary cards on the main procedures** for the authorisation of aquaculture farming in each Autonomous Community. These provide detailed information per region on the processes, documentation and requirements for authorising marine and inland aquaculture establishments.

Benefits/impact
A guidance document makes it easier for authorities and users to understand the aquaculture licensing process. It facilitates communication between both parties. It also helps implement procedures more effectively. This helps shorten the time involved in the licensing procedure by avoiding delays linked to the submission of an incomplete application and increasing the number of processed applications and licences issued. It allows operators to carefully plan for their investment and to know when operations can start.

Implementation challenges
Preparing a licensing guidance document may entail some challenges related to governance.

For instance, Austria's water legislation for the authorisation of a farm is implemented at district administrative authority level. This posed a structural challenge that could only be solved by merging the various procedures into a harmonised guidance document for the construction of aquaculture facilities/fish facilities issued by the BMLFUW and applied uniformly by the district administrative authorities.

Spain has published the procedures for the authorisation of an aquaculture farm in each autonomous community on the website of the Ministry of Agriculture, Fisheries and Food, which serves as a guide for all stakeholders.

Changes in regulation and requirements call for the guidance document to be continuously reviewed and updated, which also take up time and involves financial costs.

Another challenge may be to provide the information in a user-friendly language and appealing visuals/graphics, particularly when it comes to drafting texts that capture the legislation to be understood by all stakeholders.

Further information

Guidance document for the construction of aquaculture facilities/fish facilities (2012). Austrian Federal Ministry of Agriculture, Forestry, Environment and Water Management (BMLFUW): https://info.bml.gv.at/dam/jcr:fb6ceeb4-6dd9-41e4-bc9c-5fe4a5b236a3/Leitlinien%20Aquakultur.pdf

Guide for the procedures required for securing a licence for the establishment and operation of a fish farm (2021). DFMR: http://www.moa.gov.cy/moa/dfmr/dfmr.nsf/All/8A11A118E19BCFFFC22586070022F829?OpenDocument

Lithuania's guide on administrative procedures for the Lithuanian aquaculture sector. Lithuanian Ministry of Agriculture: https://zum.lrv.lt/uploads/zum/documents/files/LT_versija/Lietuvos%20akvakult%C5%ABros%20sektoriui%20nustatyt%C5%B3%20administracini%C5%B3%20proced%C5%ABr%C5%B3%20atmintin%C4%97(2).docx?__cf_chl_tk=gp2gjtSNck8Ki7ALB17qqgmD9.NYgILrHG9HymXnP4Q-1673968908-0-gaNycGzNCP0

Spain's procedures for the authorisation of aquaculture farming in the different Autonomous Communities (last updated in 2022). General Secretariat for Fisheries of the Ministry of Agriculture, Fisheries and Food: https://www.mapa.gob.es/es/pesca/temas/acuicultura/datos-practicos/gestion-administrativa/default.aspx

TAPAS Aquaculture Toolbox, including guidance and tools to support planning and licensing of EU aquaculture: https://www.aquaculturetoolbox.eu/

3.2.4. FACILITATING COMPLIANCE WITH ENVIRONMENTAL AND WATER PROTECTION REQUIREMENTS

Description

The establishment and operation of aquaculture sites and farms must respect the legal requirements aimed at ensuring that aquaculture does not have a significant negative impact on the environment and water quality and availability.

These requirements translate into i) the assessment of the potential environmental impact as part of an application (and renewal) of a licence; and ii) monitoring and reporting on the environmental impact of existing farms.

The Strategic Guidelines recognize that the requirements under EU environmental legislation are not always clear to all aquaculture actors. Furthermore, the implementation of relevant EU legislation is often shared among different administrative entities or governance levels, which may not always ensure sufficient cooperation or have the necessary level of expertise on the sector. "***Further efforts are therefore necessary to ensure a more uniform and coherent implementation of the environmental regulatory framework***".

Compliance with this framework and its requirements can be facilitated by providing the following:

- An explicit and clear definition of the specific requirements.
- A definition of quantifiable indicators, such as the establishment of concentration limit values for pollutants or residue discharge requirements, together with standardised methods for their calculation.
- The establishment of a single regulation and/or guidelines covering existing environmental and water protection requirements ([20]). This will set a clear framework for the instalment, development and operation of sustainable aquaculture farms.
- The establishment of model environmental monitoring programmes or activities, such as monitoring protocols and regular reports. These reports could be made publicly available to inform the public about the environmental impact of aquaculture activities.
- The sharing of environmental data among authorities competent for aquaculture and with operators in order to facilitate compliance with environmental requirements.
- Easing the compliance of requirements by small-scale producers, for instance by getting support and coordination from organisations of producers([21]), or the establishment of aquaculture management areas([22]).

(20) See above section 3.1.1 Harmonisation of legislation under a single law.

(21) This is the case of *Cofradías de Pescadores artesanales* in Galicia (Spanish region) in support of *marisqueo* (shell fishing that is considered a specific type of social aquaculture). Cofradías support small-scale producers – most of them women ("*mariscadoras"*)- with licensing requirements. The cultivation

Examples of application	
Cyprus 	The **Cypriot aquaculture-specific legislation** establishes a requirement for environmental approval by the competent authority (Department of Environment) consisting among other things, the obligation to submit a **twice-yearly environmental monitoring report**. This aims to (i) collect data to identify the environmental impact of offshore marine aquaculture activity, with the identification of acceptable limits or power bands and the maintenance of impact values within these limits; (ii) obtain quality data on environmental conditions and the maintenance of the health and welfare of farmed fish; and (iii) develop and/or improve methods for future monitoring.
Estonia 	In the first months of 2020, the Ministry of Environment (current Ministry of Climate) adopted a regulation for aquaculture on 'water protection requirements for aquaculture as well as the limit values for pollutant concentration of effluent water from aquaculture and the requirements for discharge of such water into a recipient and monitoring' (**Regulation No. 17**). The Regulation sets out standard methods for calculating the total amount of nitrogen (N) and phosphorus (P) discharged into the water body (§4). Based on this formula, the IT system where farmers can apply for a licence, where authorities can process the licence and where producers hand in annual water reports has been updated so that stakeholders can submit the right data ([23]).
Malta	The Maltese Department of Fisheries and Aquaculture of the Ministry for Agriculture, Fisheries and Animal Rights set **two specific targeted actions** to improve the sector's environmental performance: i) revising and updating the established environmental monitoring programme (EMP); and ii) setting quantifiable targets and indicators to further consolidate existing criteria and methodological environmental quality standards (EQS). Indeed, to keep their

parks for bivalve molluscs (e.g. clams in Galicia) are managed by cofradías as an aquaculture resource when it comes to i) planting the seed of the molluscs; ii) drawing up a management plan for the resource; iii) monitoring, etc. Similar examples for this specific activity can also be found in Normandy (French department).

(22) Aquaculture management areas (AMAs) are groups of farmers and producers in a given area that participate in common management practices. While individual farmers are responsible for the operation and performance of their farms, AMAs establish and implement common management goals and objectives to help improve all farms in the area. AMAs develop management plans that establish goals and objectives, common management practices, monitoring programmes and biosecurity strategies. AMAs can increase collective negotiating power, market presence and information sharing, while reducing the environmental impact and disease.

(23) In Estonia, depending on the production volume, it is necessary to apply for a registration of activities (with a production growth of up to 1 tonne per year if the water system of the aquaculture facilities is connected to a surface water body) or for a water permit (with a production growth of over 1 tonne per year). Applications for both registrations and water permits must be submitted through the KOTKAS data system. The latter are then processed by the Environmental Board. While the government charges a fee to apply for a permit, registration is free. Also, registration has no monitoring, no reporting requirements and the matter is not discussed publicly, which is still needed when processing the water permit. For further details, see the Estonian Water Act.

	licences, operators are obliged to run EMPs by engaging an independent party twice a year (in low season and peak season) according to EQS established in the national regulation that transposes Directive 2013/39/EU as regards priority substances in the field of water policy.

Benefits/impact

The definition of clear environmental and water protection requirements allows for the creation of a secure investment environment for the sector's development in a financially viable, environmentally compatible, and socially acceptable manner.

For example, in Cyprus the required 'precautionary approach' has been fully embedded in environmental monitoring reporting. This enables the regulatory authority to monitor the implementation of environmental requirements by assessing the environmental impact in real-time and in the longer term and adopt specific mitigation measures where necessary.

Estonia has reconciled water protection requirements previously covered by different regulations into a single document, facilitating their understanding and comprehension for operators and authorities. As a result, a shorter licence application procedure is expected, as the adoption of Regulation No. 17 – and the subsequent adaptation of the IT application system to its requirements – allows operators to have all the information required in the process more readily available and a tailored system in which to submit it. This also reduces the number of follow-up letters that the authorities send to operators to collect all the missing information.

Furthermore, publishing the environmental monitoring reports provides the public with information on the environmental impact of aquaculture activities to citizens. This helps perception, improves transparency and benefits future applications for licences.

Implementation challenges

In implementing this good practice, the Cypriot government overcame three major challenges. First, developing an environmental monitoring protocol required expertise and knowledge on the marine environment, which was provided by the Department of Fisheries and Marine Research (DFMR). Second, the total annual cost of about EUR 6 000 on environmental monitoring has to be covered by producers. The Cypriot government had difficulties in convincing producers that this would be an investment for the future by improving the image of the sector as a responsible sector. Third, Cyprus faced difficulty in properly communicating the scientifically based results in terms of the real impact of marine offshore aquaculture. This was overcome by organising several meetings, publications and radio and television programmes, as well as the publication of relevant informative leaflets. This is a constant effort from the Cypriot government that is still being carried out today.

In Estonia, while developing and implementing Regulation No. 17, the Ministry of the Environment faced some challenges, such as governing and coordinating all actors responsible for reconciling the different requirements under a single regulation, or technical

complexities, including measuring and calculating the limit values for the pollutant concentration of effluent water from aquaculture.

Further information

- Addressing and assessing the environmental performance of marine offshore aquaculture in Cyprus: https://thecommonwealth.org/case-study/case-study-addressing-and-assessing-environmental-performance-marine-offshore

- Estonian regulation on the water protection requirements for aquaculture as well as the limit values for the pollutant concentration of effluent water from aquaculture and the requirements for discharge of such water into a recipient and monitoring: https://www.riigiteataja.ee/akt/103042020021

- Malta's Multiannual National Plan for the Development of Sustainable Aquaculture (2022-2030): https://agrikoltura.gov.mt/en/fisheries/Documents/maltaAquaculturesCentre/mnpsa2022-2030.pdf

3.2.5. DIGITALISATION OF SERVICES (PROVISION OF INFORMATION, SUPPORT AND TECHNICAL ASSISTANCE)

Description

The use of digital technology is recognized by the Strategic Guidelines as key to achieve the objectives set for the EU aquaculture sector. Furthermore, Digitalisation allows public administration services to provide a faster, simpler, and more centralised way for stakeholders and authorities to communicate and therefore facilitates the implementation of the regulatory and administrative framework. Until now, Member States have had different approaches to this, such as:

- A **platform** that centralises all relevant aspects of a country's aquaculture sector. This allows to establish an entry point of contact between operators and authorities. The platform can provide entrepreneurs with access to information on applicable legislation, the licences or permits required, potential financial support and technical assistance available for setting up a business, and available training and education. The platform can also provide a forum to exchange information and knowledge between all interested stakeholders. It can include a contact office to be able to ask about specific issues and even to enable users to actively contribute to the platform's content by sharing news, projects, reports etc.
- A **support service** in the form of a consultant providing personalised and free assistance and guidance to entrepreneurs on technical aspects related to aquaculture, including

building a solid business plan.

- A **digital licensing registration checklist**. The goal is that aquaculture entrepreneurs can evaluate the level of compliance of their application. After filling in a multiple-choice questionnaire on their aquaculture business plan, users would be provided with an individual tailor-made checklist with full details on the documentation required and authorising body for company registration. Additional information provided may include building and water use licences, biosecurity plans, food and feed registration, and a full list of hygiene, traceability, and disease monitoring requirements.
- An **electronic registry portal**, offering aquaculture professionals and companies a single place to interact with public administrations, in the form of a one-stop shop ([24]). In addition to including the functions attributed to the one-stop shop, the portal could also allow farmers to comply with reporting obligations on their aquaculture activities by, for instance, declaring any disease outbreak or abnormal increase in mortality within their farmed species, reporting data in the context of the data collection framework or submitting data on environmental monitoring.

The support services, the digital licensing registration checklist, and the electronic registry portal can be linked to the platform described above. The platform could also include a link to the EU aquaculture website ([25]). This is an online platform for EU aquaculture that gathers relevant information for the actors in the sector such as projects, good practices, EU legislation and publications on aquaculture-related topics from a variety of sources.

Examples of application

Belgium 	In 2012, the Flemish government established the **Flemish Aquaculture Platform** with the support of the Department of Agriculture and Fisheries to promote knowledge sharing and accelerate the development of the aquaculture sector in Flanders. The platform includes a support service in the form of an **aquaculture advisor**, who provides technical assistance to Flemish aquaculture entrepreneurs.
Sweden 	In 2011, the Swedish Board of Agriculture set up a **website for Sweden's aquaculture** as an entry point for contact between producers and authorities. In addition, a **digital licensing registration checklist** for those wishing to start an aquaculture business was made available online in 2019 by the Government Services for Businesses. Aquaculture producers in Sweden can also receive this type of information when registering their business with their **Swedish Standard Industrial Classification (SNI) code** on the same website. This code consists of five digits and describes the activity carried out (in this case, aquaculture). With it, businesses can get information on their sector, including on the identification and application of licences.

(24) See factsheet 'Creation of a one-stop shop for licencing procedures' (section 4.3).
(25) See above footnote (2)

Portugal 	In 2018, Portugal's Directorate-General for Natural Resources, Security and Maritime Services (DGRM) of the Ministry of the Sea set up **Balcão Electrónico do Mar (BMar)**, an electronic portal that centralises over 100 services available for users of the sea. It allows users to register their sea activities and generate documents such as recreational navigation licences, aquaculture titles, professional or recreational fishing licences, ship and fishers certificates and radio station licences.
Greece 	In 2018, the Greek Ministry of Environment, Energy & Climate Change set up the **Electronic Environmental Registry (EER)**, an electronic platform for the environmental licensing of works and activities, including aquaculture. Users ('project operators') submit their request in digital form, together with an environmental impact study and relevant documents. Through the EER, the competent authorities give their opinion on the environmental licensing of the unit. Their project then acquires an Environmental Identity that accompanies it throughout its life (start of construction, operation, renewal, modification, shutdown, etc.).
France 	In 2011, the French Research Institute for the Exploitation of the Sea (IFREMER) established **REPAMO**, an online network for monitoring the state of health of marine molluscs in France. It has since been taken over by the interprofessional shellfish farming and fishing associations. Its objective is to detect early infections due to regulated and emerging pathogenic organisms affecting wild and farmed marine molluscs. This network is implemented online through a website and is based on event-driven surveillance. Farmers themselves declare, via the REPAMO website, any abnormal increase in shellfish mortality. After creating an account, farmers must fill in an online declaration form and contact their regional coordinator so they can send in a sample. Users are provided with guides on how to perform each of the declaration steps, as well as all necessary contact details.

Benefits/impact

Establishing a platform that centralises all relevant aspects of a country's aquaculture sector facilitates access to information and helps stakeholders better understand the sector and related legal and administrative requirements. This improves transparency and communication.

Furthermore, if operators agree to provide certain information publicly, this will help provide an accurate picture of aquaculture production, boosting perceptions of industry transparency and helping build a positive image of the sector.

Digitalising services also reduces costs and increases efficiency for both authorities and operators. Portugal is confident that its electronic portal reduces costs since it (i) eliminates travel, redundancies and paper; (ii) improves data quality; and (iii) allows for faster

authorisations and better statistical information. As a result, 103 506 certificates were issued from 2018 to March 2021.

Implementation challenges

While setting up a platform, challenges may be encountered when deciding its structure as well as the type of content that is most relevant for stakeholders and presenting it in a user-friendly manner. In Sweden, for instance, it was challenging to decide the relevant legislation to include as there are laws and regulations that are difficult to link to a specific industry.

Digitalising administrative services can also take up time and resources. It took Flanders several years to create and populate their aquaculture website as it is today. Costs for the logistics and operational issues of the platform have been covered by funding from both national and EU funds (European Maritime and Fisheries Fund). Support for staff (i.e. wages) is limited, with assistance from the Flemish Department of Agriculture and Fisheries and the active participation of other stakeholders.

Another challenge is keeping the information up to date. In the case of Flanders, for instance, the platform requires stakeholders to actively contribute to its content as it is difficult for the main bodies involved to keep track of everything going on in the sector. On legislation, the Flemish platform provides a summary of the most relevant aspects, together with contact information and/or the website of the competent authority. In this way, information does not get outdated and stakeholders get the correct and most recent information directly from the primary source (i.e. the competent authority).

Further information

3.3. SOCIAL LICENSE

3.3.1. CONSULTATION OF LOCAL STAKEHOLDERS

Description

The Strategic Guidelines note the importance of "***ensuring transparency and the early involvement of local stakeholders in the planning of an aquaculture activity***" in order to ensure the "social license to operate".

Generally speaking, stakeholder involvement should occur at the level where stakeholders are most affected by the decision taken. In the area of aquaculture, in most cases, the impact of the activity and sites is mostly local. Local stakeholders consultation will also contribute to fulfilling the requirement to identify the potential impact of the specific activities, that may have a broader impact, possibly also in a cross-border context. Appropriate provisions under

the EIA and SEA Directives may be applicable.

Social acceptability is a social construct that takes time to develop, and effective stakeholder consultation is an iterative process that requires active participation, genuine dialogue and a commitment to incorporating stakeholder input into decision-making.

Good practices for consulting local stakeholders on aquaculture encompass the following aspects:

- **Identify key stakeholders**: Identify and involve all relevant stakeholders, including local communities, fishers, environmental organisations, tourism operators and local government agencies. Ensure representation from different sectors to capture different perspectives. Clearly identify which role each key stakeholder play and which responsibility each have.

- **Early engagement**: Start the consultation process early in the planning stages of the aquaculture project/operation/activity to allow for meaningful dialogue and for stakeholder input to be included. This helps build trust and ensures that concerns and ideas are addressed from the beginning.

- **Transparent communication**: Establish open and transparent lines of communication to promote trust and ensure that stakeholders are well informed about the objectives, potential impact and benefits. Use clear, accessible language and several communication channels, such as public meetings, workshops, newsletters, websites/portals and social media (see section 3.3.2 Communication campaign).

- **Active listening**: It refers to the practice of engaging with stakeholders, such as farmers, researchers, regulators, and community members, to understand their points of view, concerns and needs related to aquaculture activities. It is important that they feel that their concerns, feedback, and suggestions are heard. Encourage open dialogue and create a safe space for stakeholders to express their opinions. Ensure that their views are acknowledged and incorporated into decision-making processes.

- **Consultation methods**: Use a variety of consultation methods to accommodate different stakeholder preferences. This can include public meetings, focus groups, multi-stakeholder groups, surveys, interviews online consultation and site visits. Consider conducting consultations in both formal and informal settings to encourage participation from a wider range of stakeholders.

- **Capacity building**: Offer training and capacity-building programmes for local stakeholders to improve their understanding of aquaculture practices, potential benefits and challenges. This can empower communities to participate effectively in decision-making processes and boost long-term collaboration.

- **Long-term engagement**: Maintain ongoing communication and engagement with stakeholders throughout the different stages of the aquaculture project/activity, including planning, construction, operation and monitoring. Regularly update stakeholders on

progress, address concerns and provide opportunities for ongoing input.

- **Monitor and evaluate**: This exercise is followed in two directions: i) specific to the project/activity; and ii) the consultation process for the project/activity. On the specific project, it is recommended to establish mechanisms to monitor the social, economic, and environmental impact of the aquaculture project/activity, involve stakeholders in the monitoring process and share the results with them. This demonstrates accountability and helps identify areas for improvement. On the consultation process, a monitoring and evaluation framework is established to assess the effectiveness of stakeholder consultation processes and the implementation of stakeholder recommendations. This will allow to regularly review and update the consultation approach based on lessons learned and feedback received.

Examples of application

UK - Scotland 	Scotland's National Marine Plan sets out strategic policies for the sustainable development of its marine resources out to 200 nautical miles. Responsibility for developing the 11 Regional Management Plans is delegated by national government to Marine Planning Partnerships (MPPs), intended to allow more local ownership and decision-making. The Clyde Regional Marine Plan was developed through a collaborative process involving extensive consultation with local communities, industry representatives, environmental organisations and government agencies. In 2016, Marine Scotland appointed the Clyde Marine Planning Partnership (CMPP) as the delegate for taking forward regional marine planning in the Clyde. Its membership is open to core groups of the Firth of the Clyde, any organisation with coastal and marine duties in the region, and any corporate body or person who can provide required skills or expertise. The CMPP produced a Statement of Public Participation (SPP) that sets out a timetable for developing the plan and provides details of opportunities for engagement and participation. It also describes the stages of plan development and what these stages will involve, for example when consultation happens. Stakeholders were actively engaged in workshops, public meetings and online consultations to provide input and feedback on the plan. The process ensured that a wide range of views were considered, leading to a comprehensive and inclusive marine plan that balances the needs of aquaculture with other marine activities and environmental conservation.

Benefits/impact

In addition to increasing social acceptance, the consultation of local stakeholders in aquaculture also brings related benefits:

- **Access to local knowledge and expertise**: Local stakeholders possess valuable knowledge and expertise related to the local environment, ecosystems, water bodies, traditional fishing practices and community dynamics. Consulting them provides an opportunity to tap into this knowledge and incorporate it into the aquaculture project. Local stakeholders can provide insights into site selection, species suitability, good management practices, how to minimise the environmental impact and good community engagement strategies. These lead to more informed and context-specific decision-making and help improve the design of the aquaculture activity/operation. It results in a more effective and sustainable aquaculture activity, better aligned with local needs and preferences, and facilitates synergies with other existing activities.
- **Greater economic opportunities**: By considering the views of stakeholders, aquaculture projects can be designed to maximise economic benefits for the local community. Opportunities can be created, for example, on employment generation, value-added processing and tourism development.

Overall, the consultation of local stakeholders in aquaculture promotes inclusive decision-making, reduces conflicts, increases project effectiveness, and promotes sustainable development. It leads to more sustainable and socially acceptable outcomes. It addresses the 'Not In My Back Yard' syndrome – which has hindered aquaculture development. It promotes a sense of ownership, collaboration, and shared responsibility, and promotes long-term success.

Implementation challenges

Implementing the consultation of local stakeholders in aquaculture can present challenges.

Power imbalances and conflicts of interest: Certain stakeholders, such as industry representatives or local government agencies, may have more influence or resources, which can lead to unequal participation and decision-making. Local stakeholders often have different points of view, interests and priorities. Balancing these competing viewpoints can be challenging, especially when there are conflicting interests or differing levels of knowledge and expertise among stakeholders. Some stakeholders may prioritise environmental conservation, while others may focus on economic development. Managing these conflicting interests and finding common ground can require skilled facilitation and negotiation.

Limited stakeholder awareness and engagement: Local stakeholders, particularly those not involved in the industry, community members and marginalised groups, may face barriers to participation, including language barriers, lack of awareness of aquaculture and its

potential impact and benefits, or limited access to information and resources.

Time and resource constraints: Engaging and consulting with a diverse range of stakeholders requires significant time, resources and effort. It can be challenging to allocate the necessary resources to conduct meaningful consultations, particularly when dealing with large or geographically dispersed stakeholder groups. Limited budgets, personnel and time constraints may pose obstacles to conducting comprehensive and inclusive stakeholder consultations.

Addressing these challenges requires careful planning, effective communication, and a commitment to inclusivity. Adequate resources must be allocated to support meaningful stakeholder engagement, including providing training and capacity-building opportunities. Facilitation techniques and tools such as multi-stakeholder platforms can be employed to promote dialogue, build consensus, and manage conflicts. Employing strategies to address representation gaps, such as targeted outreach and inclusion measures, can also help ensure that the consultation process is inclusive and equitable.

Further information

- Mediterranean Aquaculture Integrated Development, WP7 – Social Acceptability and Governance of Aquaculture Development in the Mediterranean: Factsheet_WP7.pdf (medaid-toolbox.eu)
- Involving Stakeholders in Aquaculture Policy-making, Planning and Management (fao.org)
- Clyde Marine Planning: Clyde Regional Marine Plan – Clyde Marine Planning Partnership

3.3.2. LAUNCH OF A NATIONAL AQUACULTURE COMMUNICATION CAMPAIGN

Description

The Strategic Guidelines note that it is critically important for the development of EU aquaculture to "***ensure more accurate information and transparency about how aquaculture activities are carried out in the EU***". The guidelines identify information campaigns about the EU aquaculture sector and production as a tool.

Indeed, national communication campaigns on aquaculture can play a significant role in increasing support for further development. These campaigns can effectively raise awareness, educate the public, address misconceptions, and promote a positive perception of aquaculture while increasing transparency and engagement. These campaigns provide society with information on the benefits of this activity, its real impact on the environment, applicable requirements to ensure its sustainability and aquaculture product quality and

sustainability (e.g. aquaculture can provide a product closer to the consumer).

First of all, to design a successful campaign **assessing the public's knowledge and perception** of the aquaculture sector is key. This will clearly define the objectives of the communication campaign, determine what specific messages to convey, the target audience and specific desired outcomes. This guides the overall strategy and content development of the campaign. The campaign could:

- Identify the level of knowledge and positioning of the targeted audience to better tailor messages.
- Precisely define the approach and topics that the campaign will address by, for example, analysing the perception of the sector by the public via 'suggested notoriety' ([26]) or 'spontaneous notoriety' ([27]) (this will provide the arguments that need to be counter-argued and allow selecting which ones can be covered by the campaign if need be).
- Choose the most appropriate communication channels and activities (e.g. in-person events, media publications, TV advertisements). Nowadays, it is recommended to partner with influencers, experts or ambassadors who have credibility with the target audience. Engaging them in the campaign not only strengthens the message, increases reach and builds trust, they also can help give the campaign a human feel and connect with the audience on a personal level.
- Communication measures to be considered both at regional and local level.
- Provide accurate and transparent information. All information in the campaign should be accurate, science-based and transparent, addressing any potential misconceptions or concerns related to aquaculture, and offer clear explanations of aquaculture practices, environmental sustainability efforts and regulatory frameworks to build trust and credibility. In this regard, a campaign tool can include the production of a sustainability report on the sector. This has been the case in Spain ([28]).
- Continuously monitor and evaluate the effectiveness of the communication campaign. Track key performance indicators such as reach, engagement and attitude shifts among the target audience. Use feedback mechanisms, surveys, and focus groups to gather insights and make necessary adjustments to the campaign strategy.

Two-way communication between the campaign organisers and the target audience is encouraged. This means providing opportunities for feedback, questions, and dialogue, and promptly responding to enquiries and addressing concerns. This builds a constructive and ongoing relationship with the audience, including future generations of consumers and decision makers.

There are a number of different actors that can provide support in designing and

(26) This is the capacity to recognise a brand. The brand has not been suggested spontaneously, but when mentioned the interviewees recognises it.
(27) This is the capacity to mention a brand within a category and without talking about it previously.
(29)Primera Memoria de Sostenibilidad de acuicultura | Acuicultura de España (acuiculturadeespana.es)

implementing a campaign, such as public institutions, producer organisations and international organisations (e.g. the FAO). Depending on the actor, support can be in the form of funds, tools and/or templates.

[N.B: When this document was drafted, the Commission was in the design phase of a communication campaign on EU aquaculture that will provide the relevant authorities in Member States with tools to publicise it at national level.

Examples of application

Spain 	In 2021, the National Association of Marine and Freshwater Aquaculture Entrepreneurs of Spain (APROMAR), with the support of the Spanish government and the EU through the European Maritime and Fisheries Fund (EMFF), launched **'Aquaculture of Spain'** to improve Spanish society's perception of the aquaculture sector.
Lithuania 	The national campaign **'Farmed in the EU'** was developed by the Food Institute and partners of fishery and aquaculture producer organisations to change society's unfavourable perception of aquaculture and raise awareness of the sector's development and benefits.
Czechia 	The Czech Ministry of Agriculture has been promoting the aquaculture industry under its fisheries operational programmes. In 2008-2011, they launched the **'Ryba domácí – Fish at Home'** campaign to reduce barriers to the consumption of freshwater aquaculture products. In 2016, the focus shifted to increasing awareness of the benefits of consuming freshwater fish through the **'Ryba na talíř – Fish on a plate'** campaign.
Finland 	In July 2021, the Finnish government adopted the **Programme for the promotion of domestic fish**. The main objective of this programme is to promote the high potential of domestic fish and raise awareness of the positive effects of production and consumption on the Finnish economy, environment and public health.

Benefits/impact

Developing aquaculture communication campaigns has a positive effect in raising society's awareness of aquaculture as a safe, healthy, nutritious and sustainable source of food and leading to a change in the public's and consumers' perception of aquaculture. This contributes to social acceptance and facilitates the development of aquaculture activities in the EU.

The Spanish 'Aquaculture from Spain' campaign can already count on many achievements such as i) its contribution to the publication of the sector's first sustainability report; ii) the

establishment of relations with sustainability departments of large commercial distribution companies; iii) the creation of a 'digital heritage' endorsed by the scientific community; iv) the linking of the campaign with prestigious chefs who have become ambassadors. Thanks to the campaign, technical knowledge and awareness of Spanish aquaculture increased in 2019-2022 from 44.2% to 48%. The population eating fish produced exclusively by the aquaculture sector also increased from 1.7% to 3.7%. While the main driver of aquaculture fish consumption is still price (35.4%), there are changes in the reasons for consumption, with sustainability increasing in importance from 2019 to 2022 from 6.7% to 23.7% thanks to the communication campaign.

In Lithuania, the national campaign helped raise awareness of the benefits of aquaculture, especially at school. It also promoted the consumption of products from Lithuanian aquaculture farms, and the business and career opportunities in the aquaculture sector. To this end, classroom lessons as well as field trips (over 90) to Lithuanian aquaculture farms and education and professional training institutions were organised to prepare professionals for the aquaculture sector.

Implementation challenges

One of the main challenges when implementing aquaculture communication campaigns is their **high cost**. Communication campaigns often involve different steps and media deployment to **adapt the message** to different channels and targeted audiences. This therefore requires considerable investment to ensure the campaign is effective.

Furthermore, communication practices may pose **governance and coordination challenges** between the responsible authorities in deciding the key message, campaign approach and targeted audiences, and selecting the channels and activities that best suit the needs of the aquaculture sector and society in each Member State.

Further information

- 'Aquaculture of Spain' website: https://acuiculturadeespana.es/
- Communication campaigns – Czechia: https://eagri.cz/public/web/mze/dotace/operacni-program-rybarstvi-na-obdobi-2021-2027/komunikacni-strategie.html
- 'Farmed in the EU' – Lithuania: https://zum.lrv.lt/lt/naujienos/pazintine-zuvininkystes-programa-isauginta-es-laukia-nauju-paraisku
- 'Fish on a plate' website: https://rybanatalir.cz/o-projektu
- Finnish Prime Minister's Programme (2019): https://valtioneuvosto.fi/en/marin/government-programme/agriculture

4. ANNEX I. METHODOLOGY

This document has been developed with the support of the EU Aquaculture Assistance Mechanism (EU AAM)([29]). The sources used are described below.

- **The Multi-annual National Strategic Plans for Aquaculture (MNSPAs)** adopted by EU Member States following publication of the Strategic Guidelines

The review of the MNSPAs showed that while all plans recognise the Strategic Guidelines objective to simplify the 'Regulatory and administrative framework' as a priority, 17 Member States defined complicated and lengthy licensing processes as specific bottlenecks. Furthermore, 12 of them outlined a detailed action plan for these bottlenecks in order to improve administrative procedures.

- **Results and outputs of EU-funded projects**

Results and outputs of EU-funded projects were also analysed, in particular the **Tools for Assessment and Planning of Aquaculture Sustainability (TAPAS)** project([30]). TAPAS was a 4-year collaborative research project funded by the EU Horizon 2020 research and innovation programme. It aimed to promote and consolidate the environmental sustainability of European aquaculture. It developed a toolbox for aquaculture that supports the planning and licensing of aquaculture in Europe.

- **Online survey**

An online survey was launched in October 2022 targeting Member State authorities at national, regional and local level responsible for the aquaculture sector. The key objective of the survey was to identify existing solutions implemented to solve bottlenecks encountered in regulatory and administrative procedures. Respondents were therefore asked to select the main regulatory and administrative challenges they face and describe up to three solutions they have implemented in order to address those issues. The survey was created and shared via the EU Survey tool and was open for 4 weeks.

- **EC aquaculture technical seminars**

Under the Open Method Coordination for aquaculture (OMC)([31]) established by the Common Fisheries Policy Regulation, Member States exchange good practices on the implementation of their MNSPAs. This includes technical seminars involving aquaculture experts. These good practices have been compiled and incorporated into this document. Furthermore, this document and the results of the survey have been discussed at length in these technical seminars.

- **Other sources**

Results were enriched by a **web-based search** to identify existing publications and reports. Furthermore, a **desk research and literature review** covering results from other

(29) EU Aquaculture Assistance Mechanism (europa.eu)
(30) TAPAS H2020 | (tapas-h2020.eu)
(31) Article 34 of Regulation (EU) No 1380/2013 on the Common Fisheries Policy.

countries, namely United Kingdom (UK) and Norway, included an analysis of relevant policies and regulations as well as technical studies, such as the interim evaluation of the OMC for the sustainable development of EU aquaculture([32]).

An advanced draft version of the document was then presented to Member States' aquaculture experts and to the AAC in December 2022. These allowed authorities and various stakeholders to provide feedback, highlight issues of high priority and give more details on solutions and ongoing actions.

The final selection of good practices was based on various aspects:

- balanced geographical coverage;
- expected benefits and/or actual impact of the good practice, and its knock-on effects;
- stage of the solution's implementation (e.g. idea/pilot, ongoing, implemented);
- availability and quality of information and documentation; and
- alignment with key issues and comments raised by Member States and aquaculture experts during the above-mentioned events.

(32) Study on an interim evaluation of the Open Method of Coordination (OMC) for the sustainable development of EU aquaculture – Publications Office of the EU (europa.eu)