

WP5 - Developing social
acceptability methods

Action 3 - Access2sea Social Acceptance
Strategy

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ACCESS2SEA SOCIAL ACCEPTANCE METHODOLOGY AND ROAD MAP

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ACCESS2SEA SOCIAL ACCEPTANCE METHODOLOGY AND ROAD MAP

1 Introduction

1.1 Access2Sea Project

Marine aquaculture (fish, shellfish, algaculture) is a leading sector of the Atlantic Area Blue Economy that counts on an important tradition in many EU countries and that is relevant in many of its coasts. As only 10% of Atlantic shore seafood is aquaculture-sourced there is great opportunity for raising Atlantic Area aquaculture production in a sustainable way which is the main goal of Access2Sea.

Aquaculture has the potential to boost economic development and job creation especially in the seafood sector by the sustainable exploitation of the Atlantic Area natural assets. Creating new sustainable farms is a key element for the blue economy in the region.

Access2Sea improves the attractiveness of the Atlantic shore for aquaculture SMEs by enabling new business opportunities and providing sustainable and easier access to it.

The main objective of Access2Sea is to improve the exploitation and preservation of natural assets:

- By unlocking the existing barriers (legal/regulatory, technological, existence of suitable areas in coastal zones, social acceptance) to provide the industry with technical solutions to give aquaculture businesses access to shore;
- By enabling onshore production;
- By disseminating existing and new solutions and providing support to the aquaculture SMEs, to fix them or attract them to the Atlantic Area. This way it is expected to enable SMEs to assess spatial opportunities to settle in the Atlantic shore new aquaculture business, supporting them in exploiting the natural assets in a sustainable way as well as in improving its performance through the improvement of their business model and be better accepted by local communities.

It is also expected that Access2Sea improves the co-operation between stakeholders, business support organisations, research institutes, national and regional administrations and local councils facilitating the innovation and knowledge transfer in Aquaculture sector.

1.2 Project Partners

CEEI Bahía de Cádiz

CEEI Bahía de Cádiz is a non-profit foundation that has a function of public interest and is constituted and supported by the main economic agents in the Bay of Cádiz environment.

It was established in 1997, as a result of the union of the most relevant public and private economic development and promotion entities in the Bay of Cádiz, following the CEEI model of the European Commission (EU|BIC).

Its objectives are to stimulate investment, job creation and innovative culture, the application of innovation in the industrial fabric and services in the surroundings of the Bay of Cádiz, carrying out different activities and offering comprehensive guidance consulting services and support to business projects.

CTAQUA

The Andalusian Aquaculture Technological Center Foundation (CTAQUA) is a private non-profit foundation, and 80% of its members are companies in the aquaculture sector, animal feed companies and other related industries. Prestigious university centers at national level, such as the University of Cádiz and the University of Granada, are also members of CTAQUA, as well as representative entities of the competent administration of the Junta de Andalucía.

CTAQUA was created to respond to the research, development and innovation needs of the aquaculture sector. The range of services offered by CTAQUA focuses on promoting innovation in the aquaculture and seafood sectors. This is carried out through the development of projects whose focus is on working for a planned and sustainable development of aquaculture activity.

The entity is recognized as Agent of the Andalusian Knowledge System with agent code AC0103CT. Likewise, in 2019, it has been recognized as a Technological Innovation Support Center at the state level, through the Ministry of Science, Innovation and Universities, according to Royal Decree 2093/2008, of December 19, by which they regulate the Technological Centers and the Technological Innovation Support Centers at the state level and the Registry of such Centers is created.

Údarás na Gaeltachta

Údarás na Gaeltachta is the regional development authority for Ireland's Gaeltacht, comprised of regions where Gaeilge is the everyday language of communication. Údarás na Gaeltachta has a vast experience of industrial and community development, particularly in rural coastal areas including six off-shore islands on the west coast of Ireland. The agency manages an enterprise development brief which supports over 7,000 full-time employees in the marine, tourism, food, craft, manufacturing, and modern services sectors. Much of Ireland's Gaeltacht is located along the western seaboard and so, the blue economy is of particular cultural and economic significance.

Innovation & Management Centre CLG T/A WestBIC – WestBIC

WestBIC is the official EU Business and Innovation Centre for the West/North West region of Ireland. It provides tailored business planning support to entrepreneurs and enterprises from idea generation through to commercialisation and beyond. This includes assistance with market research, financial planning, identification of technical and financial supports and introduction to business angels. WestBIC is part of the enterprise support ecosystem in its region and works closely with colleagues in other enterprise support agencies to ensure best possible assistance is given to enterprises.

Investir en Finistère

Investir en Finistère is a non-profit organization that brings together the 27 largest companies in Finistère & consular chambers. For over 20 years, they have been gathering to make their voices heard by the public authorities to defend the interests of the county.

We act for the economic development of West Brittany through different missions: promotion, advising for companies, studies.

In recent years, IEF has carried out actions to support the development of marine aquaculture & biotechnology activities, particularly by spatial planning approach.

Tecnopole Quimper-Cornuaille

Since four decades, the Technopole Quimper-Cornouaille encourages the economic development of the territory through innovation. TQC supports innovative companies from the creation to the development. TQC have developed specific competences related to the territorial specificities: agri-food, fisheries, aquaculture, marine biotechnologies and digital development.

For many years, Technopole Quimper-Cornouaille is responsible for the strategic domain fishing, aquaculture, biotechnologies at interregional level (Brittany and Pays de la Loire) With Blue economy he supports network enterprises/research/stakeholders, project engineering, granting follow-up & results promotion.

University of Algarve

The University of the Algarve (UALg) is a higher education public institution located in the southern region of Portugal, with campus in 2 different towns: Faro and Portimão. Proximity to the sea and the historic importance of the sea in the region's economy make the Sea and Marine Sciences one of the university's anchor areas, in terms of teaching, research, and business support.

CRIA is the Division of Entrepreneurship and Technology Transfer of the University of Algarve, an intermediary liaison structure aiming to promote relations between university and industry, to increase the technology and knowledge transfer, to generalize the use of industrial property rights mechanisms and to give support to the establishment of new firms. Since its creation, in 2003, CRIA has supported the creation and development of several SME in marine sectors, including in aquaculture.

Swansea University

The Centre for Sustainable Aquatic Research (CSAR) is Wales' only Centre of Excellence on Sustainable Aquaculture. CSAR is based at Swansea University and has one of the most comprehensive university based aquatic research facilities in Europe. Our facilities include a state-of-the-art suite of living labs specifically designed to optimally raise a range of aquatic species for use in research and/or teaching (£3.5 million). We also have a CRISPR lab, for gene editing work, a comprehensive genetics laboratory and large-scale algal biotech infrastructure.

Interdisciplinary Center for Marine and Environmental Research of the University of Porto – CIIMAR

CIIMAR was established in 2000 and mobilizes a multidisciplinary and highly skilled team (474 members, incl. 210 with PhD) that works at the frontier of knowledge and innovation. The mission is to promote transdisciplinary research, technological development, and training, contributing to advances in scientific knowledge and sustainability of the marine and coastal environments. CIIMAR fields of expertise cover three research domains: GLOBAL CHANGES AND ECOSYSTEM SERVICES, AQUACULTURE AND SEAFOOD QUALITY, MARINE BIOTECHNOLOGY, addressing important economic and societal challenges and contributing to achieving UN Sustainable Development Goals. To deliver our mission and build a shared understanding and valorisation of the ocean, CIIMAR is strongly involved in partnerships, public engagement, and literacy.

CIIMAR publishes annually ca. 450 ISI publications (60% Q1), supports over 100 PhD/MSc theses, and participates in relevant European and global knowledge and innovation networks (e.g. MARBEF, EUROMARINE, EPBRs, EATIP, ICES, EOOS, AtlantOS, GEO BON, MBON, EMB). The centre features well-equipped laboratories, technological platforms, cultivation and animal experimental facilities approved by the Portuguese Veterinary Authority. CIIMAR integrates research infrastructures of national and European relevance, eg. European Marine Biological Resource Centre (EMBRC-ERIC), European Multidisciplinary Seafloor Observatory (EMSO-ERIC), Microbial Resource Research Infrastructure (MIRRI-PT).

1.3 Project Territories

Spain

Spain has a wide range of water resources on which aquaculture is feasible, both in marine and inland (freshwater) areas.

In 2018, 5 075 aquaculture facilities were in operation in Spain. Of these, 4 793 were for molluscs in marine aquaculture, consisting of rafts and long-lines in which vertical cultivation of mussels and other mollusks is carried out. Inland aquaculture (freshwater) had 166 active farms, mainly for fish such as rainbow trout and sturgeon. The number of facilities on the coast, beaches, intertidal zones and estuaries was 73. In addition, operating in pens in the sea there were 43, for finfish farming.

Regarding the species, mussels are the most produced almost 300 000 t in 2019. In terms of harvest value, is sea bass the species with higher first sell value, reaching 500 000 € for near 30 000 t. Other representative cultured species are oysters, sea bream, rainbow trout, turbot, etc.

Considering the employment in the aquaculture sector, the statistics produced annually by the Ministry of Agriculture, Fisheries and Food (MAPA) indicate that the number of annual work units (UTA) in aquaculture in Spain in 2018 was circa 7 000, although this figure was distributed among 19 000 people. Most of these, 9 978 were self-employed from the mussel subsector.

In 2020, the Spanish consumed 1 150 million kilos of fish and shellfish, for which they disbursed 10 240 million euros, and the sale was 10,4 kilos per capita, 1 kilo more than the previous year, according to data from the Ministry of Agriculture, Fishing and Food.

By category, the purchase of frozen fish increased by 17.5% and that of seafood by 17.2%, and the prices of fish for domestic consumption grew by 3% in 2020.

The acquisition of fishery products grew 50% in supermarkets and 24% in traditional stores, while in the digital channel it rose 94% because "it started from scratch."

Sales of seafood in Spain rose 2.8% between May 2020 and May 2021, to 4 207 million euros, according to data released by AECOC. The rise is higher than that experienced in the general case of food (0.4%).

The category that has grown the most is that of refrigerated fish, especially at times when the restrictions due to covid-19 have been relaxed.

In the analysis by categories, fresh products account for 40.7% of sales of seafood, 33.8% of frozen products and 25.5% of refrigerated products.

So far this year (2021), according to the report released by AECOC, salmon and monkfish are the fresh fish that have grown the most (15.8% and 15.4%, respectively).

Broadly speaking, there are two types of consumers, those who support their purchase decisions based on the benefits derived from the consumption of certain products, who are set on quality conditions, and those who, mainly, make their decisions based on the price of the products offered. For the first group of consumers, it is very important to show the benefits of aquaculture products and, at the same time, force the sector to invest in quality and sustainable production.

Initiatives such as those promoted by the association of aquaculture companies at the national level (APROMAR) promoting "Aquaculture of Spain" (<https://acuiculturadeespana.es/>) are improving the knowledge of consumers, presenting reasoning in this regard.

Future communication and marketing campaigns will be designed to make citizens feel that they are important in the decision-making process related to the consumption of these products.

Ireland

In 2019 total production in the Aquaculture sector was 38 238 tonnes, representing € 173 million in sales.

Available 2018 total production figures, asynchronous as they are with 2019 aquaculture figures above, give a useful comparison of ratios: total seafood production including fisheries and aquaculture are reported at USD \$498.1 million 41% of this value came from aquaculture and 59% from fisheries.

Ireland's extraordinarily low fishing quota ratio to the European total has been further reduced since the Brexit trade agreement with the EU has seen Ireland suffering the largest quota cut in the Atlantic Area, forcing the introduction of tie-up schemes, with 25% cut in the quota. In this light, the aquaculture ratio to fisheries production, which may appear healthy at a glance actually only underscores how small both industries are in Ireland.

The shellfish sector output, 25 897 tonnes, worth € 61.4 million in 2019, increased in both volume and overall value; 6.1 and 5.5% respectively from 2018. The increase was driven principally by the Rope Mussel segment output, up by 11.1% in volume in 2019.

Farmed oyster represented 40% and 74% of total output volume and value in 2019 while the mussel segments made up 59% and 24% of total shellfish output volume and value in 2019. On-grown (Pen) salmon accounted for 92 and 95% of total finfish output volume and value in 2019.

Organic farmed salmon and farmed oyster continue to have the highest unit value per kg; € 9.44 and € 4.32 but both marginally lost value in 2019 by -1.2 and -1.4% respectively, while both fresh mussel segments gained unit value, particularly bottom grown sector (25.6%). The latter reflects the scarcity of this product across Europe.

There has been a steady reduction in the number of businesses operating in some sectors of Irish aquaculture from 2009 to 2018. This consolidation process has been fueled by foreign direct investment by a large multinational in the case of salmon farming and in the case of bottom grown mussels and oyster farming via investments from Dutch and French shellfish farmers. There is a move away from seasonal employment in the shellfish sector, with an increase in automation due to associated rising costs.

Employment over the 2009 to 2018 period, has fluctuated between 1 700 and 1 900. In 2018, 1 948 persons, equating to 1 077 Full Time Equivalents (FTEs) were directly employed. In 2018 employment increased slightly by 1%, when compared to 2017. Overall employment in 2018 was highest in the North (25%), followed by the Southeast (18%) and the West (15%). Employment is set to remain stable for 2019 and beyond given present production trends and steady market demand.

There is a low awareness of aquaculture in Ireland and many aquaculture products are often considered from wild stock. For this reason, land agriculture and fishing have higher trust than aquaculture. Smoked salmon consumption is nearly ubiquitous whereas support for salmon farming is less so.

France / Brittany

Total sales in the French aquaculture sector reached 237.9 thousand tonnes and € 1 024 million in 2018, the shellfish production represents almost 80% of this production in value and quantity. Oysters' sales represent 62% of the total amounts the aquaculture sales in France, followed by mussels (17%) and rainbow trout (16%).

From 2010 to 2018, the number of enterprises decreased from 3 171 to 2 782. Employment in the French aquaculture sector reach 15 249 persons for 9 782 full time equivalent jobs (FTE) (Table 4.7.1). The shellfish sector account for 2 455 companies (88% of the national total), mainly small scale and family structures (69%). They employ around 13 710 jobs representing 8 633 full time equivalent jobs (FTE) as seasonal jobs are quite important. During the latest years, the number of companies was decreasing slightly but this sector had 3 750 enterprises in 2002 and seems to have stabilized since 2017. The number of freshwater fish farming companies was 327 in 2018, 75% being small scale or family structures; the employment account for 1 539 jobs, corresponding to 1 150 FTE.

The main aquaculture production in Brittany is shellfish. In 2013, shellfish aquaculture represented 62 000 tonnes in production (mainly oysters and mussels) for 190 M€ of turnover. It has been estimated that the shellfish aquaculture sector represented 3 942 jobs in Brittany in 2013. Half of them were seasonal jobs.

There is a strong support from regional and local authorities to increase the number of jobs in aquaculture in Brittany. However, the sector is not structural for the local economy yet, as it is not able to employ

employees during the whole year, according to representatives of the CRC Bretagne Nord. The aquaculture sector in Brittany is dominated by shellfish culture and the latter employs workers during the high season, which is in winter. During the other months, the aquaculture sector is not employing enough persons to be considered as being structural for the region.

According to administrative managers of the Brittany region, the importance of the aquaculture sector is not recognized as being significant by local citizens, despite aquaculture's strong contribution to the maritime economy in Brittany. One of the solutions to increase the contribution of aquaculture on regional employment would be to increase the exploited surfaces.

Portugal

Portugal has a long-standing tradition and history in fisheries but aquaculture in Portugal does not represent more than 6 % of the catches.

In 2013, the aquaculture sector produced 10 300 tonnes, corresponding to EUR 53.7 million. In the same year, Portuguese aquaculture comprised 1 443 farms employing 2 572 workers, or 2 083 FTEs (full time equivalents).

Employment in the aquaculture industry in Portugal for 2011, represented 2 316 direct jobs where 18% where women, and with only 5 companies employing more than 10 people. Most of the workers have low qualifications and working within a family business, but there are also a significant number of people with higher education (university level). The national production of aquaculture for 2012 only contributed 5.4 % (10.317t) to the total seafood landings, and therefore cannot yet be considered an alternative to the traditional fisheries sector.

Most Portuguese farmers work with typical extensive and semi-intensive systems in earth ponds and cannot compete with other EU producing countries which rely mostly in intensive systems with higher densities and lower production costs.

United Kingdom / Wales

The aquaculture industry in the UK is largely Scottish and dominated by salmon. Aquaculture policy is devolved, and the framework differs in detail in each administration of the UK where aquaculture schemes and operations are conducted. Policy is much more fully established in Scotland (Scottish Government 2016) than elsewhere in the UK – an effect of the concentration of the UK aquaculture industry in Scotland. There are no sea-based finfish farms in England and Wales but other marine farms do exist on land. Seaweed culture is at the pilot stage in the UK with very small volumes of several species produced for experimental use and speciality food ingredients.

According to the latest available data (2016) jobs created in aquaculture in Wales were only 100.

1.4 Objectives of this document

Different countries have different consumer preferences, attitudes, and cultural relationship with the seafood systems. Social acceptability of aquaculture faces different challenges not only from country to

country but also in different regions within each country. This strategic plan intends to present a list of strategies that can resonate with stakeholders in different countries and which may be tested in the future.

For this reason, the object of this plan should address the overarching challenge towards the aquaculture industry especially where there is a perceived danger to or conflict with other sectors of the economy such as tourism or the environment. For this reason, education is key in the long term—seafood is affordable, consumers who understand seafood eat seafood and tend to have a better view of the industry. Therefore, the plan should be aimed at appealing to policy-makers which appears to be where prejudices towards the industry have the greatest effect.

An effort to demystify some of these misconceptions and promote aquaculture products as high nutritional value, high quality, easily available, highly controlled, healthy and safe food, should be done.

2 Reference Framework

2.1 Current situation

Spain

A questionnaire carried out about Aquaculture in Andalusia showed a generally positive perception. Respondents pointed out the availability of fresh and healthy products during all the year, for an accessible and steady price as well as the lower risk of contamination and higher sanitary controls comparing with products from wild fisheries. They also mentioned the potential of the sector to provide employment opportunities in Andalusia, and its contributions for supporting regional economic growth. Respondents expressed concerns regarding low levels of R&D and the lack of financial support from the administration for an adequate development of the sector.

Despite of the apparent social acceptability of aquaculture among the respondents of the questionnaire, this represents only a small portion of the population (38 respondents) and may be biased towards those with prior knowledge of (70% of the respondents) and/or experience in the sector.

Ireland

The consultation of stakeholders carried out previously (WP5 - Action 1) showed the following:

Although there had been a reduction in the number of businesses operating in some sectors of Irish aquaculture from 2009 to 2018, aquaculture activities are very important to sustain the employment and livelihoods of the people in Ireland.

There are good conditions for aquaculture production: nutrient rich waters and suitable sheltered bays; production techniques are environmentally sustainable.

The sector has significant weakness such as: delays in licensing processes Insufficient investment in R&D and Insufficient product availability to meet market demand.

In terms of opportunities, stakeholders highlighted the importance of the sector for employment in coastal communities, the significant export potential and global demand for high-quality seafood.

As threats they considered: fish diseases and parasites, the co-existence with other marine activities, and public opposition to industry, among others.

France

Aquaculture is viewed by professionals as being an important sector in the regional economy

in terms of employment capacities and also for cultural aspects. However, interviewees considered that the majority of citizens have little knowledge on aquaculture and maritime issues in general.

All the interviewed stakeholders considered spatial conflicts as being the major barrier to aquaculture development.

Regarding issues on water quality, aquaculture in Brittany does not seem to have a negative impact even though local citizens seem to lack of knowledge on this topic. Finfish aquaculture is too limited to have any impact on the environment in this region.

In order to limit social conflicts and visual intrusion stakeholders explained that the sector must work in cooperation with other areas such as the fisheries industry, marine renewable energies and tourism.

Aquaculture in Brittany concerns mainly the production of shellfish such as oysters and mussels. Companies remain very small, only a few of them are considered as big groups. The consumption of these products remains limited as they are not considered as being edible products of the daily life. Most of consumers buy these products for exceptional events such as over the Christmas and new years' eve period.

To conclude, the aquaculture sector in Brittany, concerning mainly shellfish culture and composed of small companies, lacks of visibility at regional level. However, opportunities exist in order to increase social acceptability such as the development of tourism or recent consumers trends, consisting of consuming products from the local level.

Portugal

Portugal is by far the main fish consumer inside the EU 27 with 56.9 kg per capita/year, while the EU average is 21.4 kg/ head/year. However, Portuguese consumers are skeptical about aquaculture. This might be related with unconstructive messages, commonly spread among consumers, which result in the preconceived idea that seafood from aquaculture is generally of a worse quality compared to wild fisheries. Vast improvements in the public image of the aquaculture sector need to be undertaken. Stakeholders have the huge challenge of clarifying consumers about the positive aspects of aquaculture products and in the demystification of several erroneous ideas.

A huge marketing effort should be made near consumers in order to distinguish between products from different origins and to promote extensive and semi-intensive fish as high-quality goods. New niche markets to these high-quality products should then be created and explored, in terms of domestic market but also to export. Still, Portuguese consumers are very skeptical concerning aquaculture products. An effort to demystify some of these misconceptions and promote aquaculture products as high nutritional value, high quality, easily available, highly controlled, healthy and safe food, is urgent.

United Kingdom / Wales

The contribution of aquaculture to the economies of England, Wales and Northern Ireland is modest; but it is diverse, spread widely across all three countries, closely associated with quality seafood and aquatic products important to the image of some regions, and locally important in rural areas. Aquaculture produces healthy seafood, with opportunities for growth that do not exist in capture fisheries.

Indirectly aquaculture makes a substantial contribution to healthy recreation and leisure for millions of people through countryside visits, angling and ornamentals.

However, seafood is not very popular in the UK. Consumption is low (19.73 kg/ capita) in comparison with other European countries (average of Access2Sea countries is 35 kg/capita; data from 2017, OWID). According to the UK government's Department for Environment, Food, and Rural Affairs (Defra), the average person in Wales eats 145.9 grams of seafood per week (7.6 kg/capita/year), which is lower than the UK average of 152.8 grams per person per week. Fish is served at UK schools only once a week, often as an option.

3 Access2Sea Social Acceptance Strategy

3.1 Mission and Vision

Taking into consideration that

- Aquaculture has the potential to boost economic development and job creation especially in the seafood sector by the sustainable exploitation of the Atlantic area assets;
- Currently only 10% of Atlantic shore seafood is aquaculture-sourced;
- And the public opinion on aquaculture products is still affected by several misconceptions and lack of information on aquaculture, directly affecting its social acceptance,

We wish to contribute for the change of public opinion, promoting aquaculture social acceptance, by informing and showing the benefits of aquaculture's processes and products, through actions that show its sustainability, the importance of fish consumption and, very importantly, compare the different types of protein production for human consumption, so that society will understand that the production of high-quality protein and low ecological damage involves the development of aquaculture.

We foresee a living society, in the Atlantic area, that consider aquaculture the most sustainable way to obtain high quality protein, affordable and safe.

3.2 Strategic Objectives and Action Plan 2022

Taking into consideration economic aspects, environmental aspects, and governance aspects three strategic objectives were defined. For each strategic objective (S.O), lines of action were defined (LoA). For each line of action, is presented a roadmap for its implementation and indicators.

S.O. 1

To improve the social acceptance of aquaculture through a better consumer response to its products (high-quality protein at an affordable price) and to the activity itself (job creation, type of contract, salary, etc.), and by strengthening the market for aquaculture products (marketing, quality / sustainability certifications). (Economical Aspects)

LoA 1.1 Regional campaigns for changing the image of aquaculture fish within the consumers

Description:

In the most of the countries fish from aquaculture is not well seen among consumers. In some cases, they are not considered having the same quality as the fish from wild captures and in other cases they are considered “ugly fish”, and seen as not good.

Regional marketing campaigns are launched to promote “ugly fish” and fish from aquacultures using “posters” shown in supermarkets and fishmongers (fish markets), and also through social Media. In addition, public events are held, involving restaurants or chefs who will create meals that use these fishes.

Roadmap:

- 1) Existing information (videos and other contents) about the positive outcomes of eco-systemic aquaculture is collected;
- 2) Meetings with producers are held in order to select the elements to showcase in the marketing campaign;
- 3) Based on the information previously collected, key messages are defined;
- 4) A business designer to create a common image for the regional campaign and to design the layout for posters and videos is recruited;
- 5) Communication materials are disseminated to local communities and to common public, in public events;
- 6) Prestigious chefs are invited to create meals that use “ugly fish” and fish from aquaculture;
- 7) Show cooking events are held.

Indicators:

- Number of campaigns designed: 1 per region;
- Number of meetings with producers: 2 per region;
- Number of designers hired: 1 per region;
- Number of posters created: 5 per region;
- Number of videos produced: 5 per region;

- Launching campaign event: 1 per región.

LoA 1.2 Online training: Say YES to sustainable aquaculture

Description:

Most consumers don't know how to differentiate between farmed and wild products when purchasing seafood and are unaware of the information contained in food labels, which is important to make sustainable food choices. There isn't, either, information to consumers about aquaculture production methods. Therefore, an online training targeted to consumers on subjects as how to read labels, aquaculture productions methods and similar items will help to provide a better social acceptance of aquaculture to general public. The online training can include short videos, fact sheets, etc.

Roadmap:

- 1) The different aquaculture methods relevant to Access2Sea countries are identified and resumed;
- 2) The structure of the online content is defined;
- 3) Contents for the online training (written, audio, video) are created;
- 4) Storyboard for the videos are written;
- 5) Following storyboards, video capture on site are made;
- 6) Videos are edited;
- 7) Videos are published on YouTube channel.

Indicators:

- Number of training courses: 1;
- Number of sets of educative videos in EN, posted on YouTube: TBD;
- Number of viewers in YouTube.

S.O. 2

To improve the social acceptance of aquaculture using socially responsible techniques and ecologically sustainable (cultivation of organisms with low trophic levels, use of non-polluting materials), as well as their dissemination. (Environmental Aspects)

LoA 2.1. Application of existing tools for sustainable development of the aquaculture sector

Description:

Based on the inventory of SME that has been carried out within the framework of the project companies from each region will choose one or more of the tools for sustainable development of the aquaculture sector to implement, during a given period. After the implementation period the results are shared and ranked, according their feasibility and efficiency. Accordingly, a set of selected measures is settled in a document of Policies Recommendations and transmitted to the public administration, in each region.

Roadmap:

- 1) The inventory of SME that has been carried out within the framework of the project is reviewed and updated with the results that came from the Access2Sea pilot projects;
- 2) The companies included in the inventory are classified according to the type of production (extensive, intensive, semi-extensive, semi-intensive, semi-intensive);
- 3) Each company is asked to fill in a form indicating the environmental monitoring plans they have and the environmental protection measures they carry out;
- 4) The identified measures are shared with the rest of the regions in order to improve their own actions;
- 5) Companies, from each region, agree on carry out these measures, during a given period and transmit the results to the partners;
- 6) The results are shared to the partners;
- 7) Participatory workshops are held, involving the companies, the partners and local authorities in order to rank the measures in order of importance/interest and to evaluate the feasibility of carrying them out;
- 8) A formal proposal with the selected measures is submitted for consideration by the governments, in each region, through producer's associations or other appropriate channel in each region.

Indicators:

- Number of participant companies: 5 per region
- Number of tools applied: 3 per region
- Number of proposals with Policies Recommendations: 1 per region

LoA 2.2. Fish welfare online tools for improving aquaculture social acceptance

Description:

Farm profitability and welfare are linked. To tackle the welfare of cleaner fish in salmon farms Swansea University has developed lumpfish welfare diagnostic tools, which will be available online through the

lumpfish welfare tracker website. The tools include a Lumpfish Weight Watchers (body mass index), a lumpfish welfare diagnostic calculator and an e-learning course on lumpfish welfare. The e-learning course and respective online tools will be provided to producers.

Roadmap:

- 1) Stakeholder Consultation;
- 2) Workshop to train farmers on how to use the online tools;
- 3) Develop a quality assurance;
- 4) Assess and evaluate the impact of the welfare tools.

Indicators:

- Number of trainees: 10 ;
- Number of evaluation forms: 10;
- Number of website views: 150;
- Number of articles in specialized journals: 2.

LoA 2.3 Communicating sustainable aquaculture through comics

Description:

Comics are a popular form of communication, able to engage readers of all age groups and cultural backgrounds. Visual narratives, such as comics and animations, are becoming increasingly popular as a tool for communicating complex topics, such is aquaculture. Aquaculture can be demystified by broking down in its components and different stories using comics.

Roadmap:

- 1) An author for comics is selected and hired;
- 2) The key concepts to be disseminated are defined by partners (examples: what is aquaculture, what is fisheries, how do we farm – different sea products, ...);
- 3) The author is involved to develop a setting that graphically ties important concept element, to create characters and a detailed storyboard;
- 4) A marketing campaign is defined and implemented;
- 5) The story is translated;
- 6) A book video trailer is published, as example of other trailers;

- 7) Print books are published in different languages;
- 8) Audiobook with sign language can be considered (depending on the available budget);
- 9) The impact is evaluated.

Indicators:

- Number of printed books distributed: 120 per country;
- Number of PDF downloaded: 200;
- Number of social media engagements: 200;

S.O. 3

To improve the social acceptance of aquaculture through the support of the administration to the companies, in terms of bureaucratic efficiency (commitment to shorten the time of resolution of procedures) and legal certainty (concession time, aquaculture insurance). (Governance Aspects)

LoA 3.1. Technical workshops about removable installations and offshore aquaculture installations

Description:

These workshops are focused on technical aspects of aquaculture installations and bring together aquaculture producers' unions, experts of the regulations in coastal areas, administrations and political representants to think about new possibilities of using maritime space for aquaculture. Technology experts of the offshore aquaculture installation and removable aquaculture installation are invited to present their technologies.

Examples of subjects to be addressed:

- Are “removable” aquaculture feasible?
- What would be their advantages in terms of regulations, techniques?
- How to occupy new spaces in coastal areas, in an innovative way?
- How the use of removable aquaculture installation could be an opportunity to install aquaculture installations?
- Regulation and technical advantages, disadvantages....

Roadmap:

- 1) Specific subjects are defined;

- 2) The target audience is defined: aquaculture producers' union representants, researchers in aquaculture, aquaculture producers, technical experts of the technology (removable installation, offshore purification installation...);
- 3) Technical workshops are scheduled;
- 4) Speakers are invited;
- 5) Technical workshops are disseminated via emails and media;
- 6) Technical workshops are organized and held.

Indicators:

- Number of Technical workshops: 1 per region;
- Number of participants in each regional TW: 50.

LoA 3.2. SME Support for business development, planning and licensing

Description:

SME support provided by intermediary liaising between planning and licensing authorities and SMEs. This support includes business development in the context of single bay management, planning and licensing regulations.

Roadmap:

- 1) Identify professionals to act as intermediary liaising officers, giving support to the aquaculture producers in business development, planning and licensing regulations;
- 2) Attendance to aquaculture producers or SME (during a year);
- 3) Elaboration of Business Plans and assistance to obtaining licenses.

Indicators:

- Number of SME liaison support offices: 1 per region;
- Number of producers/SME attended: tbd;
- Number of Business Plans: 5 per region;
- Number of Licenses obtained: 3 per region;

LoA 3.3 Jointly definition of fiscal benefits for sustainable aquaculture production, in collaboration with companies

Description:

An effective way of inducing companies to adopt social or conservation measures is through the application of tax advantages or social benefits, such as, for example, social security bonuses. The first step would be to identify what kind of bonuses would be of interest to companies and then to check the feasibility of these measures with the administration. This will be done in a participatory way.

Roadmap:

- 1) In each region participatory workshops with the companies are carried out in order to identify which kind of governance measures could be interesting for them, in case they adopt extra measures for the protection of the environment and sustainable development.
- 2) Results are shared between the partners, in order to contribute from others scenarios point of view.
- 3) The contributions from partners are returned to the companies in order to reevaluate and to rank them in order of importance/interest.
- 4) Audiences with local administrators are carried out, to show them the proposals and to evaluate the feasibility of their application.
- 5) A formal proposal with the selected fiscal benefits is submitted for consideration by the governments, in each region, through producer's associations or other appropriate channel in each region.

Indicators:

- Number of participatory workshops: 2 per region (identification and ranking of benefits; 2) proposal for its implementation to Public Administration);
- Number of formal proposals to Public Administration: 1 per region;
- Number of audiences with Public Adm: 1 per region.

3.3 Strategic Objectives and Action Lines

The table below presents the action lines per Strategic Objective and related indicators.

	Lines of Action (LoA)	Indicators (for 1 year – 2022)	Partners
SO 1 ECONOMIC ASPECTS “to increase sales and producer’s revenues	1. Regional campaigns for changing the image of aquaculture fish within the consumers	<ul style="list-style-type: none"> Nb. of campaigns designed: 1 per region; Nb. of meetings with producers: 2 per region; Nb. of designers hired: 1 per region; Nb. of posters created: 5 per region; Nb. of videos produced: 5 per region; Launching campaign event: 1 per region. 	France; Spain
	2. Online training to consumers “Say Yes to sustainable aquaculture”	<ul style="list-style-type: none"> Nb. of training courses: 1 Nb. of sets of educative videos in EN, posted on YouTube: TBD Nb. of viewers in YouTube 	UK France
SO 2 PRODUCTIVE AND ECOLOGICAL ASPECTS	1. Application of existing tools for sustainable development of the aquaculture sector	<ul style="list-style-type: none"> Nb. of participant companies: 5 per region Nb. of tools applied: 3 per region Nb. of proposals with Policies Recommendations: 1 per region 	Ireland
	2. Fish welfare online tools for improving aquaculture social acceptance	<ul style="list-style-type: none"> Nb. of trainees: 10 Nb. of evaluation forms: 10 Nb. of website views: 150 Nb. of articles in specialized journals: 2 	UK; Ireland
	3. Communicating sustainable aquaculture through comics	<ul style="list-style-type: none"> Nb. of printed books distributed: 120 per country; Nb. of PDF downloaded: 200; Nb. of social media engagements: 200. 	UK
SO 3 GOVERNANCE ASPECTS	1. Technical workshops about removable installations and offshore aquaculture	<ul style="list-style-type: none"> Nb. of Technical workshops: 1 per region Nb. of participants in each regional TW: 50 	France
	2. SME support for business development, planning and licensing	<ul style="list-style-type: none"> Nb. of SME liaison support offices: 1 per region Nb. of producers/SME attended: Nb. of Business Plans: 5 per region Nb. of Licenses obtained: 3 per region 	Spain
	3. Jointly definition of fiscal or social benefits for sustainable aquaculture producers	<ul style="list-style-type: none"> Nb. of participatory workshops: 2 per region (1. benefits; 2) implementation to Public Administration) Nb. of formal proposal to Public Administration: 1 per region Nb. of audiences with Public Adm: 1 per region 	Portugal

4 Conclusion

The information about current situation in the partners territories came from previous documents produced in the framework of Access2Sea Project and was punctually complemented by each partner. To gather information regarding social acceptance of aquaculture some partners had carried on questionnaires and interviews.

The Strategic Objectives (SO) were defined by the partnership and the Lines of Action presented in each SO were proposed by each partner. They were selected among other activities, based on the criteria of international cooperation and its feasibility. All the presented information regarding Strategic Objectives and the lines of action, including roadmaps and indicators is of each partner responsibility.

Based on this strategic plan an extension of the Access2Sea was designed and presented to the Interreg Program Managing Authority.



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