Deliverable Report

Deliverable No:	D27.2	**Delivery Month:**		3
Deliverable Title	Report on current certification schemes and standards and their business dynamics in the fish supply chain			
WP No:	27	**WP Lead beneficiary:**		P6. DLO
WP Title:	Socioeconomics-Institutional and organizational context			
Task No:	27.1.2	**Task Lead beneficiary:**		P6. DLO
Task Title:	External environmental analysis			
Other beneficiaries:	P6. DLO	P12. APROMAR		
Status:	Delivered		**Expected month:**	n/a
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Objective: To acquire an insight in the level playing field of the selected species in relation to wild fish and similar species from other world regions, insight in certification schemes and standards are necessary. This has been done through an analysis of current certification schemes and standards and their business dynamics in the different domestic and international supply chains.

Deviations: No deviations occurred from the DOW.

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1. Overview of private standards and certification schemes for aquaculture and fisheries products

1.1 Introduction

Standards and certification schemes for aquaculture are often directly related to capture fishery certification schemes. Although, aquaculture products are in essence different to captured fish and fish products, fish from both the capture fishery and aquaculture share similar morphological characteristics and are offered to consumers in comparable market spaces. Standards and certification schemes in aquaculture address critical issues about environmental and animal health/welfare matters as these are increasing stakeholder concerns driving the creation of powerful certification organizations. Standards and certification schemes are especially useful where there is *information asymmetry* on safety and quality as well as sustainability issues, that is, where buyers and consumers cannot easily judge certain quality aspects of products or production processes. These aspects include what are termed *credence goods* (FAO, 2001). This also explains why certification schemes and standards are increasing rapidly their impact on trading practices in aquaculture marketing channels to bridge societal concerns about aquaculture. These standards and certification schemes build upon national (and international) binding legal requirements that address basic food safety and quality requirements, and imply additional requirements for producers and chain parties.

1.2 Current public requirements

Requirements set by public authorities, usually referred to as "technical regulations", are typically mandatory. A technical regulation is defined as "a document, which lays down product characteristics or their related processes and production methods, including the applicable administrative provisions, with which compliance is mandatory. It may also include or deal exclusively with terminology, symbols, packaging, marking or labeling requirements as they apply to a product, process or production method." (FAO, 2011 p.7).

The international regulatory framework for aquaculture and fish safety and quality takes its origin in the following international regulatory frameworks:

- The International Organization for Standardization (ISO) Guide 2: Standardization and related activities – General vocabulary ISO, 2004;
- Binding agreements of the WTO – the Agreement on the Application of Sanitary and Phytosanitary Measures (SPS Agreement), and the Agreement on Technical Barriers to Trade (TBT Agreement); and
- Relevant food standards, guidelines and codes of practice issued by the Codex Alimentarius Commission (Codex, or CAC).

In addition, specific technical directives were developed for aquaculture, such as:

- HOLMENKOLLEN GUIDELINES FOR SUSTAINABLE AQUACULTURE (1998). This document establishes general policy recommendations and a statement of the ethical responsibilities of the aquaculture industry. These guidelines recognize that modern aquaculture can be undertaken in harmony with the environment, thus fulfilling ecological criteria of sustainable development. Furthermore, that aquaculture development can represent a valuable addition to the range of possibilities for improving regional socio-economic conditions.
- TECHNICAL GUIDELINES ON AQUACULTURE CERTIFICATION (FAO 2011), which provide guidance for the development, organization and implementation of credible aquaculture

certification schemes. These guidelines cover the range of issues that should be considered relevant for the certification in aquaculture including animal health and welfare, food safety and quality, environmental integrity and social responsibility associated with aquaculture.

- AQUATIC ANIMAL HEALTH CODE (World Organization for Animal Health 2009) on fish health, that sets standards for the improvement of aquatic animal health and welfare of farmed fish worldwide, including through standards for safe international trade in aquatic animals (amphibians, crustaceans, fish and mollusks) and their products.

1.3 Private standards and certification schemes for aquaculture and fish products

In addition to public requirements, a multitude of standards and certification schemes is applied by the private sector. These relate to a range of domains: food safety, food quality, animal health, environmental protection, and social development. Although most standards cover a range of these domains, their primary focus is largely determined by the interests of the developer of the voluntary standards (FAO, 2011). Among other studies two extensive studies provide insight about standards and certification schemes for aquaculture and fish products. The first is the MRAG (2009) review of Fish Sustainability Information Schemes that was prepared for the Fish Sustainability Information Group and provides an assessment of current private standards and certification schemes in aquaculture. And second, the FAO (2011) fisheries and aquaculture technical paper on Private standards and certification in fisheries and aquaculture, current practice and emerging issues, which provides an extensive outline of private standards and certification schemes in aquaculture based also on stakeholder workshops. These studies show that private standards and certification schemes differ in terms of content, certification and verification methods, standards developer, and focus. In this report, we distinguish between the following types of private standards and certification schemes:

- Baseline private standards and certification schemes, for example HACCP, ISO, BRC, IFS, GLOBALGAP. These set basic requirements often about production processes and processing of fish.
- NGO-driven standards and certification schemes: for example ACC, ASC, Friend of the Sea, Bioland/ Naturland that focus very much on the farm level.
- Private in-house standards and certification schemes of large retail firms, for example Carrefour.
- EU standards and certification schemes.
- Other standards such as Label Rouge (France) and producer standards and certification schemes, as for example Crianza del Mar (Spain).

1.3.1 Baseline private standards and certification schemes

Private standards and certification schemes have been merely addressing food safety and food quality issues in past decades, as the rapid development of aquaculture has been accompanied by the emergence of food safety concerns (FAO, 2011). Therefore, implementation of Good Aquaculture Practices (GAPs), Good Hygienic Practices (GHPs) and Hazard Analysis and Critical Control Point (HACCP) are required along the food chain. The HACCP system is an internationally recognized system for risk analysis in the handling of foods, and is widely used by the seafood industry worldwide.

In terms of food safety, most private standards and certification schemes have at their core GAPs, GHPs and HACCP requirement, however method and the quality of its implementation varies significantly. Several private standards and certification schemes have been developed specifically to operationalize and verify the implementations (FAO, 2011). The most common are the following:

- British Retail Consortium Global Standards (BRC). The development of the BRC Global Standards and most large-scale British retailers require BRC certification as a standard requirement for doing business (See www.brc.co.uk).
- International Food Standard (IFS). German food retailers from the Hauptverband des Deutschen Einzelhandels and French food retailers and wholesalers from the Fédération des entreprises du Commerce et de la Distribution joined in the IFS Working Group. The IFS operates as a uniform tool to ensure food safety and to monitor the quality level of producers of retailer-branded food products. The standard can apply for all steps of the processing of foods following primary production (www.ifs-online.eu).
- GLOBALGAP. Originally applying to fruits and vegetables was later extended to other foods, including fish farming practices. It was the first to develop an Integrated Aquaculture Assurance Standard (in late 2004). The GLOBALGAP Aquaculture Standard applies to a diversity of fish, crustaceans and molluscs. It covers the entire production chain, from broodstock, fingerlings and feed suppliers to farming, harvesting, processing and post-harvest handling operations. It ensures food safety, minimal environmental impact and compliance with animal welfare and worker health and safety requirements. However, the species that can presently be certified by GLOBALGAP do not include the six fish examined by DIVERSIFY. GLOBALGAP has strong support in the retail sector in Europe ("Who will win the certification showdown?", www.intrafish.no, 30 January 2009.) and elsewhere, including the Netherlands giant Royal Ahold, Carrefour, Tesco, Wegmans (United States), Aldi (Germany) and Asda (United Kingdom arm of Wal-Mart). GLOBALGAP-certified products are automatically given the "green light" on the United Kingdom retailer Sainsbury's "traffic light" procurement decision tree (which includes safety and sustainability criteria) (Seafood International, 2008).

The Global Food Safety Initiative (GFSI) (www.ciesnet.com) was developed as an attempt to improve cost-efficiency throughout the food supply chain. The GFSI standards benchmarked all require traceability systems and monitoring, and auditing in line with Codex and the HACCP system. The GFSI's main objective is to implement and maintain a standard to recognize food safety management standards worldwide, including by facilitating mutual recognition between standard owners, and working towards worldwide integrity and quality in the certification of standards and the accreditation of certifying bodies. The GFSI does not develop certification or accreditation activities. Instead, it encourages the use of third-party audits against benchmarked standards. The overall vision is to achieve a simple set of rules for standards, harmony between countries, and cost-efficiency for suppliers by reducing the number of required audits (FAO, 2011). The following standards have been benchmarked as compliant with the GFSI (www.mygfsi.com/about-gfsi/gfsi-recognized-schemes.html):

- BRC Technical Standard (Version 5);
- IFS (Version 5);
- The Netherlands HACCP;
- GAA BAP (GAA seafood processing standard;
- GLOBALGAP IFA Scheme Version 3 (Aquaculture Version 1.02–March 2010).

Producers, processors and retailers are members of several standards despite the GFSI platform. Carrefour, for example, is a member of the GFSI and the IFS. The United Kingdom's TESCO is a member of BRC and the GFSI (OECD, 2006). Nevertheless, differences remain in terms of the specific requirements of standards and their related certification and audit processes (FAO, 2011).

1.3.2 NGO-driven standards and certification schemes

Some NGOs have also been active in developing standards and certification schemes for aquaculture. These standards and certification schemes have been born out of a desire to improve the image of farmed aquatic products as a safe and sustainable alternative to wild capture fish, and are aimed at improving practices generally throughout the industry, including reducing the negative environmental impacts. Most of the work to improve management practices has been carried out on salmon and shrimp, mainly owing to their high commodity value and importance as the most traded fish and seafood products (FAO, 2011). The most important of these NGO's Standard and Certification Schemes identified are:

The Aquaculture Stewardship Council

Following its involvement in the certification of sustainable forestry (Forestry Stewardship Council) and wild-capture fisheries (Marine Stewardship Council), the WWF has formed the Aquaculture Stewardship Council for standards for aquaculture certification, with an emphasis on eliminating the negative environmental and social impacts of aquaculture. It has organized a range of round tables involving aquaculture producers, buyers, NGOs and other stakeholders in an attempt to develop standards for aquaculture certification. The ASC aims to be a global certification and labeling program for responsibly farmed seafood. Its certification program and seafood label recognizes and rewards responsible aquaculture and seeks to increase the availability of responsibly produced aquatic food. The ASC's standards have been developed through the WWF *Aquaculture Dialogues*, and according to ISEAL guidelines, multi-stakeholder, open and transparent, science-based performance metrics. They are set to minimize the environmental and social footprint of commercial aquaculture by addressing key impacts, and connect fish farms to the marketplace by promoting responsible practices through a consumer label. Six standards, covering abalone, bivalves, freshwater trout, *Pangasius*, tilapia, shrimp and salmon are already available (see www.asc-aqua.org).

The Aquaculture Certification Council (ACC)

The standard developed by the Global Aquaculture Alliance (GAA) is one of the most significant aquaculture standards in terms of volumes and global coverage. Responding to industry calls for more formal recognition of these practices, it aligned with the Aquaculture Certification Council (ACC), a non-governmental body based in the United States. The ACC has accredited 113 independent inspectors and auditors from 30 countries. The Global Aquaculture Alliance (GAA) is an international, non-profit trade association dedicated to advancing environmentally and socially responsible aquaculture. GAA recognizes that aquaculture is the only sustainable means of increasing seafood supply to meet the food needs of the world's growing population. Through the development of its Best Aquaculture Practices (BAP) certification standards, GAA has become one of the leading standards-setting organizations for aquaculture seafood. These BAP standards address environmental and social responsibility, animal welfare, food safety and traceability in a voluntary certification program for aquaculture facilities. BAP certification defines the most important elements of responsible aquaculture and provides quantitative guidelines by which to evaluate adherence to those practices. BAP apply to salmon, mussel, shrimp, tilapia, *Pangasius*, European sea bass, gilthead sea bream, cobia, greater amberjack (and other *Seriola* spp), trout, grouper, barramundi, perch, carp, flounder, turbot, striped bass, crabs, freshwater prawns and crawfish (see www.gaalliance.org/bap).

Friend of the Sea

Friend of the Sea (FOS) was set up in 2006 and has origins in the Earth Island Institute. It covers both wild capture and farmed fish and seafood with an environmental focus. Friend of the Sea is a non-profit non-governmental organization, whose mission is to conserve the

marine habitat. It's a relevant international certification project for products originating from both sustainable fisheries and aquaculture. Products and their origins are audited onsite by independent international certification bodies, against strict FOS sustainability criteria. Certified products from all continents include most of the traded species, fishmeal, fishfeed and Omega-3 fish oil. Friend of the Sea criteria follow the FAO Guidelines for the Ecolabeling of Fish and Fishery Products. (see www.friendofthesea.org).

FREEDOM FOOD. The Royal Society for the Prevention of Cruelty to Animals (RSPCA) is a British charity dedicated to farm animal welfare, including fish (salmon) that has established a certification scheme. The Freedom Food animal welfare assurance scheme label indicates that the animals have been kept to strict RSPCA welfare standards. The standards cover the whole of an animals' life, not just their time on farm, and span the following freedoms: from hunger and thirst, from discomfort, from pain, injury and disease, to express normal behavior, and from fear and distress (see www.rspca.org.uk).

1.3.3 Private in-house standards and certification schemes of large retail firms

Most large retailers, as well as large processors and catering firms, have developed their own detailed product and process specifications related to processed (frozen, canned) fish products. Standard specifications are typically communicated to the next level down in the supply chain – to processors, brokers or importers, which subsequently translate those specifications to their suppliers. Nowadays, some retailers are buying direct from fish farms and communicating specifications directly to them. Many have their own audit and inspection requirements. For example, CARREFOUR, the world's second largest retailer, buys shrimp directly from farmers in Thailand, which involves sending their own inspectors to verify that products and farming practices meet their own standards.

1.3.4 EU-organic standards and certification schemes.

EU organic certification is an overall system of farm management and food production that combines good environmental practices, a high level of biodiversity, the preservation of natural resources, the application of high animal welfare standards and a production method in line with the preference of certain consumers for products produced using natural substances and processes. Regulation (EC) 834/2007) sets a framework of organic production rules in the EU with regard to plant, livestock, and aquaculture production, including rules for the collection of wild plants and seaweeds, rules on conversion, as well as rules on the production of processed food. Detailed rules on organic aquaculture animal and seaweed production are established in Commission Regulation (EC) 710/2009. This certification works to contribute to transparency and consumer confidence as well as to a harmonized perception of the concept of organic production. In order to create clarity for consumers throughout the Community market, an EU-Organic logo is obligatory for all organic pre-packaged food. The EU requires a strict control system with checks carried out at every stage of the organic chain. Every operator (farmer, processor, trader, importer or exporter) is checked at least once a year, or more often on the basis of risk assessment.

EU organic legislation is transferred to national certifying bodies for organic aquaculture products. The first organic standards (for aquaculture) also appeared in the mid-1990s with Debio and Naturland (originally founded in 1982) (MRAG, 2009). Naturland is based in Germany but operating internationally, certifies organic farmed seafood, and is accepted throughout Europe. Other examples are Bio Suisse in Switzerland and the Soil Association in the United Kingdom. For these organizations, standardization of fish and seafood

products are linked to existing certification schemes for agricultural products. Organic aquaculture accounts for very small volumes of production – only about 1 % of overall aquaculture production.

The EU ecolabel is an official European award for products and services, which meet high environmental standards (Regulation (EC) 66/2010). It is part of the sustainable consumption and production policy of the EU, which aims at reducing the negative impact of consumption and production on the environment, health, climate and natural resources. The scheme is intended to promote those products, which have a high level of environmental performance through the use of the EU Ecolabel. However, food and feed are not yet eligible for this Ecolabel.

DESIGNATION OF ORIGIN (PDO) and PROTECTED GEOGRAPHICAL INDICATION (PGI) are official EU schemes (Regulation (EC) No 510/2006) promote and protect names of quality agricultural products and food. PDO covers agricultural products and food, which are produced, processed and prepared in a given geographical area using recognized know-how. PGI covers agricultural products and food closely linked to the geographical area, having at least one of the stages of production, processing or preparation in that area. These certifications ensure that only products genuinely originating in certain regions are allowed to be identified as such in commerce.

1.3.5 Other private standards and certification schemes

Some countries have been developing also private standards and certification schemes aimed to guarantee quality of the product. In Europe Label Rouge is a well-established French quality label (albeit not exclusively related to fish and seafood) (FAO, 2011). LABEL ROUGE (Red Label) is a sign of quality assurance for products to be sold in France. Products eligible for the Label Rouge are food items (including fish) and non-food and unprocessed agricultural products such as flowers. The Label Rouge logo certifies that a product has a specific set of characteristics establishing a superior quality level to that of a similar current product. This label can be found on salmon, turbot, sea bream or trout.

Producers or groups of producers have also developed private standards and certification schemes. Some producers have also developed brands promoting safety and quality linked to the geographical origins of the product. These certifications are promoted by fish farmer's associations, in order to inform consumers that the fish that carry such label have been produced under specific conditions and are of high quality. CRIANZA DEL MAR (*Marine Produce*) certification scheme created by the Spanish Marine Fish Farming Association (APROMAR) to promote the quality of Spanish marine aquaculture products. It presently covers sea bream, sea bass and turbot, with plans to include meagre in the near future. A set of stringent standards assure consumers on the responsible production of the fish that carry the label, including environmental, nutritional values, feed quality and fish welfare.

2. Dynamics of private standards and certification schemes

Differences in private standards and certification schemes both in content and use are effected by dynamics in the market place. In this chapter we describe three important dynamics:

- Chain dynamics;
- Cost of private standards and certification schemes;
- Geographical differences throughout Europe.

2.1 Chain dynamics

Private standards and certification schemes are increasing rapidly their impact on trading practices in aquaculture marketing channels. Although private standards and certification schemes by definition are voluntary, they may in practice become de facto mandatory where compliance is required for entry into markets (FAO, 2011). This is becoming an increasingly common practice both inside and outside the EU. In this way, retailers and food service expand their decision making backward in the channel to include products, food safety, animal welfare and sustainability. If a fish farmer or fish processor wants to supply a retailer that has adopted for example the GLOBALGAP sourcing criteria, it must comply with these standards. When retailers and food services adopt a particular scheme, this can become an essential element of customers' requirements and part of "the license to deliver" for retailers, or a contribution to corporate social responsibility (Immink, 2009).

Private standards and certification schemes that add-on to the baseline private standards and certification schemes and merge safety, quality, environmental protection, animal health and social development are often linked to private firms' CSR strategies, for example the Carrefour standard. Most large retailers, commercial brand owners and foodservice industry companies prefer to align themselves to (and require chain partners to be certified to) standards developed by external collective bodies, rather than to develop their own standards. Retailers want to use GFSI benchmarked standards in combination with add-on private standards and certification schemes. For example, GLOBALGAP has add-on modules for aquaculture and cooperates with WWF Aquaculture Dialogues for an additional voluntary standard. This is perhaps the clearest evidence that private standards are not only designed to provide guarantees against food safety failures, they are also tools for differentiating retailers and their products. Thus, more often companies join forces and involve other stakeholders and NGOs. They build on the stakeholder's reputation and they can build on the knowledge and other stakeholder resources to fulfill their societal ambitions. The process of formulating criteria may vary, depending on the type of organization formulating the private standards and certification scheme (Ingenbleek and Immink, 2010).

Depending on the mission of private standards and certification schemes, a distinction can be made between business-to-business and business-to-consumer standards and certification schemes. Business-to-business private standards and certification schemes are usually established to facilitate the verification of the supply chain in their sourcing practice and guarantee a certain level of quality and/or sustainability, for example GLOBALGAP. Business-to-consumer standards are established with the aim of serving a particular market segment, for example Organic or ASC. Private standards and certification schemes have their own assessment methodology with outside expert assessment applying pre-set indicators, standardized procedures and tools to secure accountability and transparency (Vellema and Van den Bosch, 2004).

2.2 Cost of private standards and certification schemes

The cost of certification to private standards and certification schemes could range from several thousands to hundreds of thousands of Euro's, depending on the selected standard, the size of the company, the type of operation, and the gap between the current production process and the one required by the private standard. Some costs are direct (licensing fees, audit fees to certification companies) while others are indirect, e.g. management time spent in planning and implementing any improvements required, developing new systems, and the costs of actual plant or gear upgrades. In general, fish farmers and processors bear a disproportionate

share of the costs of certification compared with those at the retail end of the supply chain where demands for certification generate. The costs of compliance are disproportionately higher for small operators where they have fewer economies of scale (FAO, 2011).

2.3 Geographical differences throughout Europe

Considerable geographical differences exist throughout Europe in the importance of private standards and certification schemes, especially with respect to sustainability. In general, large retailers and food service companies in North-West Europe have more requirements than in countries in Southern Europe, where sustainability issues are less dominant, or work indirectly through quality and origin of the product. In North-West Europe a higher proportion of seafood is sold in supermarkets, and there is a greater predominance of processed and value-added products (FAO, 2011). A study about the market perspectives of ASC certified *Pangasius* in six countries in the EU (Germany, United Kingdom, the Netherlands, Poland, Spain and Italy) also revealed the differences in the necessity of standards. In Germany, besides standards related to food safety and food quality, standards related to sustainability such as ASC are becoming increasingly important for large retail and foodservice companies (CBI, 2013). Also in Germany, standards for organic products are an important niche. In the UK, standards with respect to sustainability are used to ensure responsible sourcing, and have become a market access requirement. This holds for large retail and foodservice companies, smaller companies have not been taken into account in this study. In Spain and Italy standards with respect to sustainability have less importance. In these countries, some aquatic products are already certified by Global GAP, MSC and Friend of the Sea, but sustainability standards are less important for large retailers and food service companies. These companies rely more on standards for food safety and food quality that are already in place, such as BRC and IFS. Knowledge about sustainability standards often is also lacking (CBI, 2013).

3. Implications for business modelling and market introduction: Potential interesting private standards and certification schemes for the species in DIVERSIFY

For business modelling and market introduction of new species it is important that the usefulness of the most relevant standards and certification schemes for entrance in the market are clear. Fish farmed in the EU are of the highest quality and must comply with very stringent legal production requirements. However, on the European markets they must compete against imported fish products from third countries, often of lower quality. Because compliance with the obligatory and stringent EU production regulations does not entitle EU fish farmers to label the fish with these merits, European fish farmers find themselves in a complicated position to convince consumers of the added value of their products. For this reason the use of some type of official EU standard or certification scheme for responsibly farmed fish could be of high interest, also for the DIVERSIFY species.

Aquaculture companies in developing third countries that export their produce to the EU sometimes embrace fair trade and social private standards or certification schemes. These labels aim to assure consumers that those companies implement socially responsible practices at the farm level and in the value chain. However, because these practices are today legal obligations for any aquaculture production in the EU, there is no space for the use of such standards for fish produced in European fish farms.

Most requirements for private standards and certification schemes are species-specific, meaning that before a new species can be certified, standards for that fish need to be created and approved. This procedure can be lengthy and expensive for both the certifying body and for the fish farmer, delaying its market introduction until a sufficiently large critical mass of fish are produced and ready to be placed on the market. Nevertheless, Best Aquaculture Practices (BAP) certification standards already apply to greater amberjack

and its relatives (*Seriola* spp) and groupers (*Epinephelus* spp). Also, works on the ASC standard for *Seriola* spp are planned in the near future and GLOBALGAP standards can be extended to some new species swiftly. Thus, private standards and certification schemes for new species are developed continuously and provide a perspective for the DIVERSIFY species.

Any new DIVERSIFY species that targets large retailer outlets will need to adhere from the beginning to whatever standard that client demands. Retailers will require certification schemes for assurance on the quality and conditions of the fish products. ISO certifications could be necessary in most cases, and perhaps even GLOBALGAP. These business-to-business certification schemes can be additional to the business-to-consumer certification schemes mentioned above.

In most EU Member states, the supply of fish to public organizations (internal procurement by caterers of government offices) is strengthening the demands for higher requirements to environmental private standards and certification schemes. The EMAS certification, even though not used much today, could be a readily available valuable instrument for new species. The ISO 14000, more widely used, also serves this purpose.

The existing EU Ecolabel (Regulation (EC) 66/2010) presently excludes its use on foodstuffs, but might be an opportunity in the future.

Organic food production is a growing option for any type of farmer in the EU. Although organic farmed fish is still a minor part of the global farmed fish market, several thousands of tons of organic Atlantic salmon, rainbow trout gilthead sea bream and European sea bass are produced every year. This type of non-species specific scheme could provide an opportunity for the production of DIVERSIFY species. However, compliance with certification requirements for minor species is complex because of the absence of organic inputs in the value chain, such as the inexistence of organic feeds for those species or the unavailability of certified organic juveniles with which to begin production. The opening of transitory periods for adaption of those farms to the Organic Regulation can help overcome these limitations, but until a large enough production is developed (several thousand tons per year) the costs for Organic certification will be unaffordable.

Private standards and certification schemes focusing on animal welfare certification, such as RSPCA's Freedom Food welfare label, are of little impact outside the United Kingdom, and are, nevertheless, not much demanded for farmed fish. In the case of the DIVERSIFY species, because the basic welfare production parameters would have to be determined beforehand, the opportunities on the use of such labels are negligible in the near future.

All the aforementioned considerations on certification schemes that could be useful for the production and commercialization of DIVERSIFY species are independent to the use of private brands that processed and packaged fish products should always bear. Any farmer of fish species considered in the DIVERSIFY project that plans to sell processed fish in any type of packaging should work on the design and promotion of its private brand. The private standards and certification schemes addressed in this report are to be understood as complementary initiatives to the value of the own brand.

Promotion and information to consumers, in order to familiarize buyers with fish species that up to that moment are little known by them, will probably be a more effective action than certification, at least in the initial years.

4. Conclusions

Although there has been significant expansion in the aquaculture sector, there are still relatively few options for simple certification. Most private standards and certification schemes are specie-specific, meaning that before a new species can be labeled with a particular standard for that fish, standard setting will be necessary. This procedure can be lengthy and expensive for both the certifying body and for the fish farmer delaying its creation until a sufficiently large critical mass of fish are produced and placed on the market. The use of some type of official EU Ecolabel for responsibly farmed fish could be of high interest, also for the DIVERSIFY species. However, this Ecolabel does not yet exist and the European Commission has shelved such possibility, for the moment.

The pressure on fish farmers and processors of farmed fish to comply with private standards depends on the market, how that market is structured, and on the type of product being sold. Large retailers and food firms may not be equally demanding of all their suppliers or product lines. Retail-buyers specifications differ by retail organization, with retailers demanding baseline requirements versus compliance to third party private standards and certification schemes. The pressure on suppliers to conform to stringent private standards and certification schemes depends on the market and the type of product in question. For example, requirements are more stringent for private label that contribute highly to the reputation of the retailer and high-risk processed fish products that require large efforts on food safety and quality, than for basic commodity fish. Therefore, in the follow-up of this research in DIVERSIFY it is important to understand buyers opinion on the use of private standards and certification schemes for the species under study. These additional insights are important as the proliferation of standards causes confusion for fish farmers and processors trying to decide which standard will bring the most market returns.

Furthermore, fish marketers still face safety and quality control regimes that vary from one jurisdiction to the next, as well as a growing proliferation of private standards and certification schemes being introduced by the private sector. Therefore, throughout Europe there are differences in countries or even regions based on cultural values and how standards are embedded in the local technical requirements.

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