SEAFOOD^{TOMORROW}



Nutritious, safe and sustainable seafood for consumers of tomorrow

Grant agreement no: 773400

Deliverable 5.4

Benchmark for seafood quality and safety certification schemes

Due date of deliverable: 30/04/2021

Actual submission date: 30/04/2021

Start date of the project: 01/11/2017 Duration: 42 months

Organisation name of lead contractor: MRAG Ltd

Revision: v1

Project co-funded by the European Commission within the H2020 Programme		
Dissemination Level		
PU Public	Х	
PP Restricted to other programme participants (including the Commission Services)		
RE Restricted to a group specified by the consortium (including the Commission Services)		
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1. Introduction

This document provides the results of **Deliverable 5.4** 'Benchmark for seafood quality and safety certification schemes'. The main output of this Deliverable is a Benchmark Tool, which aims to provide assurances that products are being developed to maximise their nutritional content and safety whilst considering socially, environmentally and sustainably responsible practices. For the purpose of this project a benchmark can be defined as a tool to 'measure and continually improve an organisation's processes against that of good practice and / or prescribed procedures' and as such, can be seen as the first step in developing a full certification standard that would be able to cover specific processes and products that have been developed during SEAFOOD^{TOMORROW}.

This document consists of the following Annexes:

Annex 1: SEAFOOD^{TOMORROW} Linking Document

Annex 2: SEAFOOD^{TOMORROW} Benchmark Tool

Annex 3: SEAFOOD^{TOMORROW} Benchmark Tool Guidance

Annex 4: SEAFOOD^{TOMORROW} Pre-Audit Questionnaire

Annex 5: SEAFOOD^{TOMORROW} Label Guidance

Annex 6: SEAFOOD^{TOMORROW} Labels (in English, Portuguese, Spanish, French and Italian)

2. Future applications of the Benchmark Tool

To support continual exploitation of the Benchmark Tool following the end of the SEAFOOD^{TOMORROW} project, it is anticipated that the results of Deliverable 5.4 will be uploaded to the open-source learning platform 'Moodle' which is utilised by MRAG. Moodle will act as a forum for feedback and allow the tool to be continually developed and revised as changes are made to specific products developed within the SEAFOOD^{TOMORROW} project. This platform will help to future proof the tool and allow MRAG to keep it upto-date whilst also providing the option for online training of auditors, should the Benchmark Tool be taken up by industry. MRAG will also continue to communicate with SEAFOOD^{TOMORROW} partners to keep abreast of any changes in specific products that would require amendments to the Benchmark Tool.

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1. Introduction

In order to synthesise the results of the SEAFOOD^{TOMORROW} project and to help drive sustainable seafood production, **Deliverable D5.4** aimed to develop a Benchmark Tool and labelling scheme with associated guidance. This document provides an overview of the process that was undertaken to develop the Benchmark Tool and associated guidance as well as an indication of how these documents work together. This process began with a review of existing certification schemes to understand good practice and commonalities that could be used to help inform the development of the tool. The next stages involved the drafting of the tool itself and site visits to various SEAFOOD^{TOMORROW} partners to further inform its development and understand how the tool would work in practice. Following revisions to the tool based on the feedback from partners, the associated SEAFOOD^{TOMORROW} label was developed in conjunction with a guidance document to help support usage of the tool. The tool and guidance document were mock-tested inhouse to gage the useability of the tool and identify any areas which were unclear and needed improvement, which resulted in final amendments.

2. Objective

The main objective of the tool is to provide assurances that products are being developed to maximise their nutritional content and safety whilst considering socially, environmentally and sustainably responsible practices. As such, this can be seen as the first step in developing a full certification standard that would be able to cover specific processes and products that have been developed during SEAFOOD^{TOMORROW}.

This report provides an overview of the development of the Benchmark Tool process within seven stages and describes how the various documents produced for Deliverable D5.4 fit together.

3. Overview of development process

3.1. Stage 1: Review of existing certification schemes

The first stage of the development process began with a review of existing labelling and certification schemes that are available on the market and the specific characteristics of each scheme. This was undertaken by MRAG in association with several SEAFOOD^{TOMORROW} partners. The characteristics reviewed included:

- Location where the certification is applicable;
- Topic of the certification (provisionally allocated between food safety, food quality, sustainability);
- Whether a label is used;
- How it is communicated (business to business, to final consumer);
- Frequency of independent 3rd party verification (or surveillance) audits;
- Length of certificate validity;
- Parameters of the certification; and
- Evidence required.





The aim of this task was to assess existing schemes to identify 'good practice' and commonalities which could be used to inform the development of the SEAFOOD^{TOMORROW} Benchmark Tool. The review determined that in the case of food quality and safety, standards often simply require compliance with national and regional food safety standards, or with other existing standards. Therefore, it was determined that it would be most pragmatic to utilise existing standards or regulations (either voluntary or mandatory) where possible to reduce the burden on both the assessor and the entity seeking certification.

It was also determined at this stage that, although the focus of the Benchmark Tool would be on the value-added features of the SEAFOOD^{TOMORROW} products, that a high-level assessment of social, sustainability and environmental responsibility should also be included. Although the tool would not aim to conduct a full assessment of social, environmental and sustainability aspects, it would be important to include to encourage ethical and environmentally-friendly practices and to determine that there are no serious issues that could damage the reputation of the SEAFOOD^{TOMORROW} brand. Where possible, this would again align with existing standards or schemes (e.g., Marine Stewardship Council, SA8000).

3.2. Stage 2: Development of the Benchmark Tool

The next stage in the process was to start developing the tool based the information gained from the review of existing schemes in combination with expert knowledge of certification schemes. It was decided that the Benchmark Tool would consist of three phases:

- Phase 1: Scope and eligibility
- Phase 2: Audit of specific processes
- Phase 3: Traceability

3.2.1. Phase 1

The purpose of Phase 1 is to determine whether an entity is eligible to undergo an audit against the SEAFOOD^{TOMORROW} Benchmark Tool. This consists of a set of filtering questions to determine the scope of the audit (e.g., what SEAFOOD^{TOMORROW} product is being produced?) through a pre-audit questionnaire but also to assess certain social, environmental and sustainability criteria. This includes the risk of forced labour, environmental violations, association with Illegal, Unreported or Unregulated fishing, or violations of food safety standards. This provides an initial indication of whether the audit can proceed as certain issues will preclude the entity for continuing with the assessment.

3.2.2. Phase 2

Phase 2 consists of the audit against the specific SEAFOOD^{TOMORROW} product or process. As specified in the original proposal, this focused on different Tasks of Work Package 2 (WP2): products with reduced sodium; nutritionally adapted recipes for target groups; seafood treated to improve safety; and processes with reduced water and energy consumption. In addition to the Tasks under WP2, it was decided that the fortified feed being produced in Task 1.1 could also be added to the Benchmark Tool, as the processes and products being developed were suited to an auditing programme.

To support development of the audit process, a review of EU legislation (including Regulation (EU) No 1169/2011 on the provision of food information to consumers, the Annex to Directive 90/496/EEC and



Article 6 of Regulation (EC) No 1925/2006 of the European Parliament and of the Council of 20 December 2006) was undertaken to determine the thresholds that would need to be met to make specific nutritional claims associated with the products being developed. Once the relevant SEAFOOD^{TOMORROW} partners analysed the results of their tasks, the outcomes were discussed with MRAG, and the specific nutritional claim for each product was determined (e.g., 25% reduced sodium, High in vitamin D).

Once the nutritional or safety claims were identified, a set of questions were defined for each product within the Benchmark Tool in order to assess an Entity's compliance against the procedures developed within SEAFOOD^{TOMORROW}. These questions ensure that the procedures are being correctly followed and as such the final product is able to carry the distinct value-added safety or nutritional claim. These assurances are important in order to ensure claims are reliable and transparent, and can be trusted by consumers and industry, not only concerning the products themselves but also the SEAFOOD^{TOMORROW} brand. Once the questions for each product were drafted, these we sent to each relevant partner within the project to review and provide comments. Any comments were taken into account and Phase 2 of the tool was updated accordingly.

3.2.3. Phase 3

Phase 3 consists of the traceability aspect of the tool. Within the SEAFOOD^{TOMORROW} project, a digital traceability tool between businesses is being developed within a separate Task under WP5 (Task 5.2) however, within the Benchmark Tool it was determined that assessing traceability within the Entity (e.g., factory or farm) was pivotal to include. This is to assess how robust and transparent the traceability procedures are within the Entity to provide the required assurances that products against which a SEAFOOD^{TOMORROW} claim is being made cannot be mixed with or replaced by non-conforming product.

A set of questions on traceability were developed for the Benchmark Tool and were tailored to target specific aspects of the supply chain. For example, there are specific questions for entities developing the fortified feed under Task 1.1 and other questions for entities producing nutritionally adapted recipes for target groups. Questions applicable for all entities are also included within the tool. As part of the traceability aspect of the audit, a mass balance and traceability test were included that could be conducted on a site visit to check the robustness of any traceability system in place.

3.3. Stage 3: Site visits

To gain a better understanding of how the Benchmark Tool could work in practice, as well as how it could work alongside the digital traceability system, three site visits were made to partner organisations. Specifically, these were:

- IDmer in France (Task 2.2)
- Skaloma in Greece (Task 1.1)
- Mussel processing factory in Spain (Task 5.2)

These site visits allowed MRAG to ground truth some of the questions within the Benchmark Tool as well as identify certain aspects of the supply chain where particular risks could arise. Further to this, the site visits



provided vital information as to how the tool could work when applied in an industrial setting as well as the opportunity to discuss with stakeholders the application of the tool.

3.4. Stage 4: Label and smartphone application development

In parallel to the development of the Benchmark Tool was the development of a SEAFOOD^{TOMORROW} label. This label was developed in collaboration with Aqua TT and provides a way for an Entity to be rewarded if it is able to satisfy the requirements of the Benchmark Tool. It also allows for consumers to distinguish SEAFOOD^{TOMORROW} products on the market. Different labels were developed for each of the SEAFOOD^{TOMORROW} products which highlight the nutritional or safety qualities of the product to the consumer. Each label was developed in English but translated into four other EU languages with the assistance of partners including: Spanish, Italian, Portuguese and French.

Within each label is the inclusion of a QR code that will be generated through the digital traceability tool in Task 5.2. MRAG worked with partners to link the code to a smartphone application that, when scanned by the consumer, provides further information on the product. This includes information on the development of the product and the benefits it provides. This was undertaken to provide more transparency and information to the end consumer.

3.5. Stage 5: Development of the guidance document

To accompany the Benchmark Tool, a guidance document was created to provide potential users of the tool with information and examples on how to complete an audit. The person using the benchmark tool (the auditor) must be able to objectively assess the procedures in place in such a way that can be easily repeated by another independent user of the tool in another setting. As such, the guidance document was prepared to provide instructions and examples of different scenarios, to ensure consistency in approach, as well as specific guidance on scoring and appropriate actions to be taken.

3.6. Stage 6: Mock testing

Following completion of the Benchmark Tool and associated guidance document, MRAG conducted a series of mock tests in-house with members of staff unfamiliar with the tool and its development. This was undertaken to test the robustness of the tool and the associated guidance as well as to better understand how easy the tool would be to use by an auditor. Feedback provided by mock testers was used to clarify or amend certain aspects of the tool to make it more user-friendly.

3.7. Stage 7: Final review by partners

The updated Benchmark Tool and guidance documentation were re-sent to partners whose products are included in the tool to gain final feedback on the questions included within the assessment. This specifically included if any variations in ingredients or processes could be allowed that would not affect the final safety or nutritional claims. This was important to establish, as in a factory setting some slight variation in quantities can occur due to human or machine error. Following this, the tool and associated documents were finalised.



4. Limitations

Throughout the process of developing the Benchmark Tool and associated guidance, a number of limitations were identified. These included:

- Most products were only produced at the pilot scale in a laboratory setting. This limited the ability to
 test the tool in an industrial setting, where ultimately the Benchmark Tool would be utilised. This
 means that if this tool were to be further developed, amendments might be required by changes to
 processes or products that may occur when they are scaled up.
- COVID-19 limited the ability for MRAG to ground truth certain aspects of the tool. However, the three site visits undertaken at the beginning of the project did provide useful information.

5. Considerations

In order for the Benchmark Tool to be developed further, there are several areas that would need to be considered. Firstly, it should be determined whether there is an acceptable level of variance allowed in the input ingredients or processes, as well as the output values, such that the product would still conform to the SEAFOOD^{TOMORROW} standard and the final claims would be unaffected. This would likely become more apparent as processes are scaled up to an industrial setting, which will also demonstrate acceptable levels of variation and levels more in line with practical applications of the processes. This will allow continual development and improvement, as well as allowing substitution and replacement of "non-essential" ingredients as needs may dictate.

Secondly, in order for this Benchmark Tool to move towards an accredited certification standard, extensive stakeholder consultation would be required with a range of public and private stakeholders. In addition to this, the full cost of the scheme to the Entity would need to be determined and the whole standard ground-truthed in an industrial setting. In addition, a Conformity Assessment Body would need to be formed to manage the Standard as well as an appropriate licensing body to handle the certification and labelling requirements.

Lastly, it would be important to continually monitor the sustainability of each fish species included in SEAFOOD^{TOMORROW} products. Species included in the recipes under Task 2.2 were selected on sustainability criteria (stock status) as well as economic criteria (underutilised species), both of which are subject to change. A system would need to be in place to monitor these two criteria to determine any change in risk level. If a species were to become no longer sustainable, an update to the Benchmark Tool would be required and an Entity already producing a specific product would have to modify their supply chains in order to continue using the label.



Annex 2: SEAFOOD^{TOMORROW} Benchmark Tool

• The Benchmark Tool can be accessed through the following link:

EC reviewers: D5.4 - Annex 2: SEAFOODTOMORROW Benchmark Tool (basecamp.com)

SEAFOOD^{TOMORROW}



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Grant agreement no: 773400

SEAFOODTOMORROW Benchmark Tool Guidance

Revision: v1



Glossary of terms / Acronyms

Acronym	Definition
ASC	Aquaculture Stewardship Council
Benchmark Tool	To measure and continually improve an organisation's processes against that of good practice and / or prescribed procedures
DHA	Docosahexaenoic acid
EPA	Eicosapentaenoic acid
Entity	An organisation that has its own separate legal and financial existence (this may consist of several sites)
FAO	Food and Agriculture Organization
HACCP	Hazard Analysis and Critical Control Point
HPP	High Pressure Processing
ILO	International Labour Organization
ISO	International Organization for Standardization
IUCN	International Union for Conservation of Nature
ΙΟΟ	Illegal, Unreported and Unregulated fishing
NoV	Norovirus
PSP	Paralytic Shellfish Poisoning
RF	Radio Frequency
RWD	Refractance Window Drying
SMETA	SEDEX Members Ethical Trade Audit
TSE	Thermal Solar Energy
UHT	Ultra-High Temperature Processing



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1. Introduction

Global fish consumption has increased at a rate significantly higher than that of world population growth. This is thought to be attributed to a variety of factors including technological advancements, rising incomes and shipping and distribution. These factors correlate strongly with an increased awareness of the health benefits of consuming fish. Seafood is one of the most important food commodities due to their high-quality proteins, essential amino acids and micronutrients such as vitamins and minerals. As a result, fish represent a valuable source for healthy diversification of diets, even in small quantities. Between 1961-2017, the average annual growth rate of total food fish consumption was 3.1% (FAO, 2020). One of the main challenges in meeting this increasing demand will be ensuring that food production and consumption is socially, economically and environmentally sustainable. The development of environmentally friendly and sustainable seafood processing methods that maximise the nutritional benefits of fish is therefore fundamental in meeting market demands while maintaining seafood security and quality.

Based on long-term monitoring by the FAO, the status of marine fish stocks has continued to decline. Approximately 34% of fish stocks were fished at biologically unsustainable levels in 2017 and in terms of landings, around 78% of current fish landings come from biologically sustainable stocks (FAO, 2020). As a result, the need for sustainably managed fish stocks has become increasingly more important. Certification and ecolabelling has emerged as way to influence markets and create incentives for sustainably managed fisheries (Gutierrez *et al.* 2016).

As the development of a full certification standard was outside the scope of the Horizon 2020 project, it was decided that a Benchmark Tool would be developed to help determine the nutritional and safety qualities of the products being developed in SEAFOOD^{TOMORROW}. In this instance, the Benchmark Tool can be seen as the first step in developing a full certification standard and will help Entities provide assurances that products are being developed to maximise their nutritional content and safety whilst considering socially, environmentally and sustainably responsible practices.

The Benchmark Tool Guidance is split into the following sections:

Section 1: Introduction

- 1.1 Purpose of the Benchmark Tool Guidance
- 1.2 Objective of the Benchmark Tool
- 1.3 Structure of the Benchmark Tool

Section 2: Assessment Process and use of the label

- 2.1 Eligibility
- 2.2 Scoring
- 2.3 Use of the label

Section 3: Benchmark Tool User Guide

- 3.1 Phase 1: Scope and eligibility
- 3.2 Phase 2: Evaluation matrix
- 3.3 Phase 3: Traceability procedures
- 3.4 Traceability test guidance
- 3.5 Mass balance test guidance



1.1 Purpose of the Benchmark Tool Guidance

The Benchmark Tool is split into three main phases, which together determine whether the correct procedures and traceability measures are in place to provide the assurance that claims associated with each SEAFOOD^{TOMORROW} product can be made. In order to do so, the person using the Benchmark Tool (the auditor) must objectively assess the procedures in place in such a way that can be easily repeated by another user of the tool in another setting. As such, the following Benchmark Tool Guidance has been prepared to provide instructions and examples of different scenarios, to ensure consistency in approach, as well as specific guidance on appropriate actions to be taken.

1.2 Objective of the Benchmark Tool

The objective of the Benchmark Tool is to provide a means by which to assess whether the procedures developed within SEAFOOD^{TOMORROW} are being correctly followed. This will enable the final product to carry the distinct value-added safety or nutritional claim according to EU Legislation and deliver the required assurances to the next customer, be that the final consumer or business to business. These assurances are important in order to ensure claims are reliable and transparent, and can be trusted by customers and industry, not only concerning the products themselves but also the SEAFOOD^{TOMORROW} brand.

Specifically, this relates to providing the following assurances related to:

- Utilization of novel sustainable feed materials in aquafeeds towards the fortification of farmed fish;
- Seafood products with reduced sodium content without loss of product safety or quality;
- Digestible, attractive, functional and nutritionally adapted seafood products for youth, pregnant women and seniors;
- Implement strategies to decontaminate and improve the safety of seafood products; and
- Put into practice strategies for sustainable industrial processing of seafood products.

The products being developed by SEAFOOD^{TOMORROW}, the claim being made, and the associated detail are provided in Table 1.

Table 1: Summary of the different project aims and associated claims

Aim	Product	Claim	Detail
Utilization of novel sustainable feed materials in aquafeeds towards the fortification	Fortified farmed carp	High in selenium and omega 3	Enhanced levels of selenium and omega- 3, derived from natural sources, providing nutritionally enhanced common carp.
of farmed fish	Fortified farmed trout	Source of iodine	Enhanced levels of iodine, derived from natural sources, providing nutritionally enhanced rainbow trout.
	Fortified farmed seabream	High in selenium and omega 3	Enhanced levels of selenium and omega- 3, derived from natural sources, providing nutritionally enhanced gilthead seabream.
Sodium reduction in seafood products	Salmon pâté	Reduced sodium	Salmon pâté produced using Saltwell, a naturally derived salt containing a mixture of sodium and potassium



Aim	Product	Claim	Detail
without loss of product safety or quality			chloride, resulting in a product with 25% reduced sodium content.
	Smoked salmon	Reduced sodium and source of potassium	Smoked salmon made with replacing sodium chloride with potassium chloride resulting in 25% reduced sodium and a source of potassium.
Produce digestible, attractive, functional and nutritionally adapted seafood products for youth,	Mussel and fish hearty soup with root and tuber vegetables	High in vitamin D High in vitamin B12 High in protein Source of omega 3	Nutritionally enhanced mussel soup with increased vitamin D, vitamin B12, omega 3 and protein, together with low salt content, using naturally derived ingredients.
pregnant women and seniors.	Blue whiting fishballs with vegetables and marinara sauce	High in vitamin D High in vitamin B12 High in protein Source of omega 3	Nutritionally enhanced fish balls with vegetable meal with increased omega 3, vitamin D, vitamin B12, and protein, together with low salt content, using naturally derived ingredients.
	Fish and cabbage roulade	Source of omega 3 High in vitamin D High in iodine High in vitamin B12	Nutritionally enhanced fish roulade meal with increased omega 3, vitamin D, vitamin B12 and iodine content, using naturally derived ingredients.
	Sauté common dab with wheatberry salad	High in omega 3 High in vitamin D High in iodine Source of vitamin B12	Nutritionally enhanced fish fillet meal with increased omega 3, vitamin D, vitamin B12 and iodine content, using naturally derived ingredients.
	Carp sausage with salad and baked potatoes	Source of omega 3 High in vitamin D High in vitamin B12	Nutritionally enhanced fish sausage, with increased omega 3, vitamin B12 and vitamin D using naturally derived ingredients.
	Bib fishballs with sweet potato and banana purée and crispy banana	Source of omega 3 High in vitamin D	Nutritionally enhanced fish balls, with increased omega 3 and vitamin D using naturally derived ingredients.
Implement strategies to decontaminate and	Reduced norovirus (NoV)	Treated to improve food safety	Bivalve molluscs treated to improve consumer safety.
improve the safety of seafood products.	Reduced <i>Listeria</i> monocytogenes Paralytic shellfish	Treated to improve food safety Treated to improve	Fish products treated to improve consumer safety. Bivalve molluscs thermally treated to
	poisoning detoxification	food safety	improve consumer safety.
Put into practice strategies for sustainable industrial	Powdered soup	Reduced energy consumption	Meal produced using energy efficient methods, reducing impact on the environment.
processing of seafood products.	Pasteurised fish soup	Reduced energy and water consumption	Meal produced using energy and water efficient methods, reducing impact on the environment.

1.3 Structure of the Benchmark Tool

The Benchmark Tool is contained within a single spreadsheet made up of several different tabs corresponding to different elements of the tool and the potential scope to be assessed. It is designed so that one spreadsheet can be



completed for each Entity to be assessed, regardless of how many different SEAFOOD^{TOMORROW} products are being made.

The benchmark tool itself is divided into three "phases" which are described in more detail below.

1.3.1 Phase 1: Identification of type of audit, assessment scope and the relevant criteria

This phase is largely completed through the use of the pre-audit questionnaire, complemented as necessary by background research by the auditor. The purpose of this phase is to identify the scope and eligibility of the Entity by:

- Determining which type of audit is being requested and is necessary.
- Establishing the products and claims being made that are to be audited.
- Establishing at what stages of production and handling are the claims made, and therefore the scope of the traceability assessment.
- Establishing the various processes and Entities involved in the handling of the products against which the claim is made, in order to ensure all aspects of the supply chain are included in the assessment e.g., if any subcontractors are involved.
- Providing an initial assessment of the Entity's performance against sustainability, environmental and social responsibility criteria.

This essentially consists of a series of filtering questions which assist the auditor in being able to develop a profile of the Entity, identify any potential areas of risk, and establish contact points and methods of communication.

The results from this phase determine whether an audit shall take place but do not provide any definitive results by which the auditor may decide if the Entity may make the claim being made. Some of the questions in this first phase may identify that the Entity is not suitable for further assessment and the audit will be immediately terminated. This, for example, may occur if an Entity has been successfully prosecuted for human rights abuses.

1.3.2 Phase 2: Assessment of supply chain and operations against relevant criteria for specific products

The purpose of this phase is to test the procedures and processes conducted by the Entity in relation to those prescribed by SEAFOOD^{TOMORROW}. This is to ensure that entities are following the correct protocols so that the final product meets the required nutritional content or safety claim. Questions are graded against a four-tier system ranging from pass, pass with observation, potential for improvement or corrective action required. Depending on the responses made, and in combination with the results from the traceability assessment in Phase 3, the Entity may be permitted to make the claims, or provided with a list of corrective actions to be made before permission can be granted.

1.3.3 Phase 3: Assessment of the supply chain traceability against which the relevant claim/s are being made.

The purpose of this phase is to assess how robust and transparent the traceability procedures are in the Entity to provide the required assurances that products against which a SEAFOOD^{TOMORROW} claim is being made, cannot be mixed with or replaced by non-conforming product. The purpose of this phase is to test traceability within the Entity (e.g., within the factory or farm) rather than between entities. Traceability between entities is dealt with by a digital traceability system which has been developed as another objective of SEAFOOD^{TOMORROW} and uses a QR code.



2. Assessment Process

The use of a SEAFOOD^{TOMORROW} label is contingent on the Entity involved being able to demonstrate that it is able to satisfy the requirements of the Benchmark Tool through an audit carried out by a recognised independent third party. Permission to use a SEAFOOD^{TOMORROW} label will then be granted by the third party once the Entity has successfully passed an audit.

The assessment process is outlined in Figure 1, which shows the various steps that an Entity must undertake in order to be able to use the SEAFOOD^{TOMORROW} label. If an Entity passes the audit against the Benchmark Tool it is eligible to carry the SEAFOOD^{TOMORROW} label for the specified product that was assessed, for a total of 12-months from the date of accreditation. An Entity may be eligible to use the label with any number of criteria considered as passes, observations, or potential for improvement. After 12 months, a surveillance audit is required, which conducts a full assessment of the processes.

In particular, this surveillance audit will note previous criteria which have had an observation raised in order to ensure that these continue to have no impact on the entities assurances to make the corresponding claim. More importantly, the audit will also review any criteria for which an improvement was considered possible and consider if any improvement plan has been implemented in order to ensure continual improvement of the SEAFOOD^{TOMORROW} product.

In the case of a corrective action being required, the Entity will not be able to use the label nor make the claim until such a time as it is able to demonstrate that a corrective action has been successfully implemented. This is assessed by carrying out a re-assessment of the specific criteria that required the corrective action. Furthermore, any substantial change in raw materials, product or process would also require a re-assessment if this occurs within the 12-month period.

The main stages are described in detail below in Table 2 and shown in Figure 1.

Table 2: Overview of each step in the assessment process

Stage	What is involved	Timeframe
Entity decides it wishes to start producing a The Entity must contact the Administration Body and request an initial assessment of their eligibility to carry a SEAFOOD ^{TOMORROW} label.		0
Audit process commences	The Administration Body processes the request and contacts an accreditation assessment body.	
Pre-audit questionnaire	The Entity shall respond to the pre-audit questionnaire completely, including addressing any follow up comments with 1 week of receiving the pre-audit questionnaire.	+ 1 week
Based on the responses from the initial pre-audit questionnaire, the initial eligibility of the Entity is determined. Decision made on Whether the assessment can go ahead The Entity passes the initial eligibility questions and the scope can be defined, the full audit can begin. If the Entity does not pass this stage then they are not eligible to be audited. This does not preclude the Entity from ever carrying the SEAFOOD DOMORROW label but it must rectify the issues of concern and begin the process again.		+ 1 week
Initial assessment	The full audit against the Benchmark Tool is undertaken. This includes an on-site visit of all different sites identified in the scoping assessment, where appropriate. Each aspect is scored, using a four-tiered scoring system. Depending on the outcome of the assessment, the Entity is either	This shall take place within 3 months of application.



Stage	What is involved	Timeframe
	eligible to carry the SEAFOOD ^{TOMORROW} label or it must address certain areas that have failed. In this case the Entity must implement corrective actions to address issues within a 6-month period.	The assessment is to be carried out after giving the Entity no more than 24-hours' notice.
Re-assessment	Re-assessment is to check for successful implementation of required corrective actions. Conditions which may require a re-assessment also include modifications to the process and or materials used or a change in location of process. The re-assessment can be undertaken off-site if appropriate and should only concentrate on the aspects of the assessment that required corrective action or where a modification has occurred.	Within 6 months of the initial audit.
Surveillance assessment	After 12 months of carrying the SEAFOOD ^{TOMORROW} label, the Entity must undergo another full audit to ensure continued compliance. This assessment should focus on the areas for improvement or observations that were raised at the previous audit. An addition of any new product in the SEAFOOD ^{TOMORROW} line must undergo a new full assessment.	+ 1 year

2.1 Eligibility

In order to be eligible to undertake a benchmark assessment the Entity must be producing a product developed by SEAFOOD^{TOMORROW} and follow the procedures prescribed. There are certain questions in Phase 1 of the audit where particular circumstances may render an Entity ineligible to proceed with an audit. These include whether:

- The Entity has been prosecuted for violating any forced labour or human trafficking laws;
- The Entity been prosecuted for any environmental law violations;
- The Entity been prosecuted or implicated in the sourcing of IUU caught fish or seafood;
- The Entity cannot demonstrate compliance with relevant EU legislation for food safety relating to fish and shellfish products; and
- The Entity does not have a food safety management plan in place.

2.2 Scoring

Scoring of each question in Phase 2 and Phase 3 in the Reporting Template is conducted using a four-tiered system which is detailed in Table 3.

Table 3: Overview of scoring

Score	Explanation	Action required	Timeframe
Pass	All findings demonstrate that the Entity is able to provide the required assurances that the SEAFOOD ^{TOMORROW} product conforms to the prescribed protocol.	No further action required. The Entity is eligible to make the claim and use the corresponding label.	Surveillance assessment is due in 12 months
Pass with observation	Something has been observed that may deviate slightly from the protocol but doesn't change the outcome of the SEAFOOD ^{TOMORROW} product specification.	No further action required. This provides information for future audits on any relevant observations so that this feature may be adequately assessed to ensure that the product's integrity remains unaffected.	Surveillance assessment is due in 12 months



Score	Explanation	Action required	Timeframe
Potential for improvement	Something has been observed that creates a risk of affecting the product specification in the future, even if it has not been observed to have affected the product yet. SEAFOODTOMORROW has an objective / philosophy for continual improvement, there is potential for the process to improve to provide greater assurances to the customer.	While the Entity is entitled to make the claim, an improvement plan must be enacted. At the time of the next surveillance assessment, evidence of the implementation of this improvement plan needs to be in place.	Surveillance assessment is due in 12 months
Corrective Action Required	Something has been observed that changes the product, such that it no longer conforms to the SEAFOOD ^{TOMORROW} process or product specification. Or, if auditing traceability, the SEAFOOD ^{TOMORROW} product is not fully traceable from production to sale. When 'Corrective Action Required' has been scored, the Entity may not produce SEAFOOD ^{TOMORROW} products until the corrective action has been implemented and signed off by the auditor. Product in stock produced before that date, may also not be sold as SEAFOOD ^{TOMORROW} . On receiving a 'Corrective Action Required' score, Entities have eight weeks in which to create and put into action, a Corrective Action Plan which shall then be communicated to the assessor. Once the action plan has been fully implemented, and no more than 6 months from the initial assessment audit date, the auditor will carry out a re-assessment. This may be conducted remotely. The Entity must provide documented evidence of the changes made, such that the score is increased, or the Entity will not be approved to sell SEAFOOD ^{TOMORROW} product.	The Entity is NOT entitled to make the claim NOR use the SEAFOODTOMORROW label. A corrective action plan must be developed. A follow up visit may be scheduled within 6 months, to examine this or these issues only, and determine whether this has been satisfactorily addressed. Upon being able to demonstrate corrective actions have been successfully implemented, the Entity will be able to make the claim and use the corresponding label. If within 6 months the corrective action has not been satisfactorily implemented, an entirely new assessment, including all relevant elements of the benchmark, must be carried out.	Corrective action needs to be implemented within 6 months. Supply chain then needs to be reassessed but this can be remote if applicable.

A summary of scores should be provided on the Audit Findings tab. If a Potential for Improvement or Corrective Action is required the auditor must provide clear guidance on what corrective actions or improvements should be made and a timeframe in which to do this. In the case of a pass with observation, this should be recorded and reported to the Entity management. It is important that this aspect continues to be adequately monitored with any surveillance assessments.



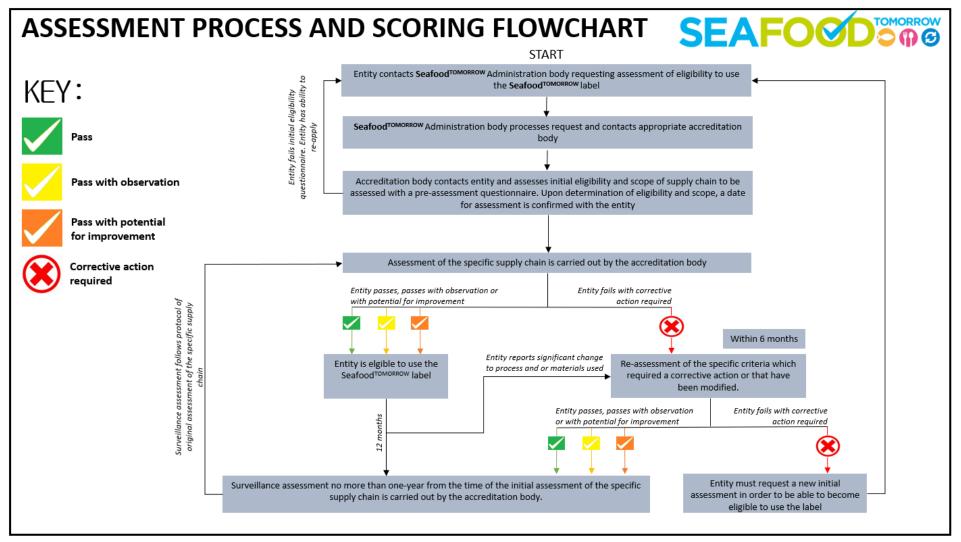


Figure 1. Assessment process and scoring flowchart



2.3 Use of the label

Use of the label is contingent on the product being able to satisfy the requirements of the Benchmark Tool. Once an Entity has passed the audit, it must apply to the Accredited Conformity Body for use of the label. Guidance on the correct use of the label is available¹ and must be followed. Different labels have been developed for each of the EAFOOD^{TOMORROW} products which highlight the nutritional or safety qualities to the consumer. An example of a SEAFOOD^{TOMORROW} label can be seen in Figure 2.



Figure 2. Example of a SEAFOOD^{TOMORROW} product label for a single claim

A multi-claim label is available, which is applicable to the six recipes developed to be digestible, attractive, functional and nutritionally adapted seafood products for youth, pregnant women and seniors, an example of which can be seen in Figure 3.

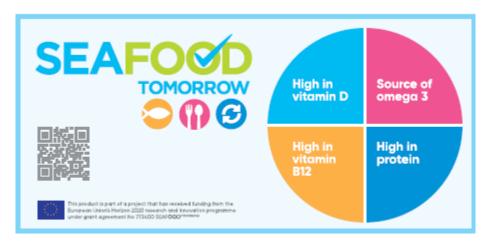


Figure 3: Example of a SEAFOOD^{TOMORROW} product label for multiple claims

Each label is also available in Spanish, Italian, Portuguese and French. Within each label is a QR code that will be generated through the digital traceability tool. This QR code is linked to a smartphone application that, when scanned by the consumer, provides further information on the product as shown in Figure 4.

¹ SEAFOOD^{TOMORROW} Food Packaging Label Guidelines





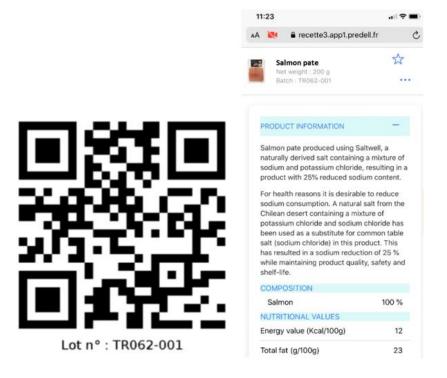


Figure 4. Example of the QR code and the respective information on smartphone application

This QR code is incorporated into the label and must be displayed on the final packaging once the product has been approved. Annex A provides an overview of the associated text that can be found on the smartphone application in relation to each SEAFOOD^{TOMORROW} product.



3. Benchmark Tool Guidance

The below sections provide guidance on the use of the Benchmark Tool during an audit. This covers all three phases as well as scoring.

3.1 Phase 1: Type of Audit, Scope and Eligibility

The first step in completing the Benchmark Tool is to establish the scope of the assessment and to determine the level of risk which may be inherent in the operation. This is done by understanding what type of audit is required and why, the claims being made and from which point in handling/production, what products are handled and what entities are involved for which processes.

Most of this information should be obtained from the pre-audit questionnaire, and supplemented by press reports, publications and information pertaining to the Entity available in the public domain. The pre-audit questionnaire is to be completed by the Entity to be assessed before any on-site visit (refer Annex B: Pre-audit questionnaire). This information should then be cross-checked and confirmed upon arrival at the site.

3.1.1 Phase 1i: Audit history

Previous audits should be logged on this tab, in order to note any previous observations, potential for improvement and / or corrective actions required, so that the assessor is able to ensure these have been, and remain, successfully closed out. Observations from previous audits should be recorded in this tab, but do not necessarily require action if the product integrity has not been affected.

3.1.2 Phase 1ii: A. Type of audit

As discussed in Section 2, there are three main types of audit, being:

- Initial assessment;
- Re-assessment; and
- Surveillance assessment

The Entity under assessment should be clear on what type of assessment is required, and for which criteria in the case of a re-assessment.

3.1.3 Phase 1ii: B. Entity eligibility

The following table provides guidance on initial eligibility requirements that must be met for the audit to proceed. The Entity must be able to demonstrate compliance (e.g., through self-declaration documents and/or description of EU/National regulations followed) before an on-site visit can be started.

Question	Guidance	
B. Entity eligibility		
B.1 Has the Entity (or any subcontractor used) been successfully prosecuted for violating any forced labour or human trafficking laws?	The Entity should be able to confirm, by written statement that this is not the case. In the case they are not able to demonstrate this, the Entity is not eligible to use the SEAFOOD ^{TOMORROW} label and the audit must be terminated.	



Question	Guidance
	If the Entity has been prosecuted in the past but has since rectified the issue and has had no further occurrence then the audit may continue.
	The Entity should be able to confirm, by written statement that this is not the case.
B.2 Has the Entity (or any subcontractor used) been successfully prosecuted for any environmental law violations?	In the case they are not able to demonstrate this, the Entity is not eligible to use the SEAFOOD ^{TOMORROW} label and the audit must be terminated.
	If the Entity has been prosecuted in the past but has since rectified the issue and has had no further occurrence then the audit may continue.
	The Entity should be able to confirm, by written statement that this is not the case.
B.3 Has the Entity (or any subcontractor used) been successfully prosecuted or implicated in the sourcing of Illegal, Unreported or Unregulated (IUU) caught fish or seafood?	In the case they are not able to demonstrate this, the Entity is not eligible to use the SEAFOOD ^{TOMORROW} label and the audit must be terminated.
caagiic iisii oi scarooa.	If the Entity has been prosecuted in the past but has since rectified the issue and has had no further occurrence then the audit may continue.
B.4 Is relevant EU legislation for food safety relating to fish and shellfish products followed?	At a minimum, The General Food Law Regulation (Regulation (EC) No 178/2002 ²) must be adhered to which covers all stages of food and feed production and distribution.
	In the case they are not able to demonstrate this, the Entity is not eligible to use the SEAFOOD ^{TOMORROW} label and the audit must be terminated.
B.5 Is there a Food Safety Management Plan in place?	The Entity should have a certified HACCP plan in place. In the case they are not able to demonstrate this, the Entity is not eligible to use the SEAFOOD ^{TOMORROW} label and the audit must be terminated.

² Regulation (EC) No 178/2002: https://eur-lex.europa.eu/legal-content/EN/ALL/?uri=CELEX:32002R0178





3.1.4 Phase 1ii: C. Audit scope

Phase 1 initially helps the auditor establish the eligibility of the Entity and scope of the products to be assessed against the Benchmark Tool. Specifically, this determines if the Entity is eligible to use the SEAFOOD^{TOMORROW} label, looks at the products against which a SEAFOOD^{TOMORROW} claim is being made and the Entities involved in making that claim (including involvement of any subcontractors).

Question	Guidance	
C. Audit scope		
General. Complete all questions		
C.1 List and define each of the SEAFOOD ^{TOMORROW} products.	The purpose of this question is to define the product for which a SEAFOOD ^{TOMORROW} claim is being made. The description should include: • the final product; • the weight unit, and packaging type; • The species used; and • The fishery or farm sourced.	
C.2 Describe the processes undertaken for which a SEAFOOD ^{TOMORROW} claim is being made.	The purpose of this question is to define the processes undertaken on a product for which a SEAFOODTOMORROW claim is being made. This should only consider activities which involve handling of product against which SEAFOODTOMORROW claims are being made. This should be divided into: • Feed production • Capture fishery • Fish farming • Mollusc farming • Processing/ transformation; and • Wholesaler / retailor / Transportation / Storage Is the declared activity consistent with the activities declared within the traceability system? Only those processes involved in handling of product while not in tamper proof packaging needs to be included. Any entities only involved in wholesale, retail, transportation or storage of tamper proof product does not need to be assessed.	
C.3.1 Are different sites are involved in production? If so, how many?	The purpose of this question is to determine if other sites are involved in the production or handling of products which may be subject to audit.	
C.3.2 Please define and describe the sites involved.	The purpose of this question is to define and describe the sites involved in the production and/or handling of the product/s for which a SEAFOOD ^{TOMORROW} claim is being made.	
	Each site involved in the production of SEAFOOD ^{TOMORROW} products will have to be evaluated to ensure	



Question	Guidance
C. Audit scope	
	conformance, and separate sites shall be considered as a single Entity. That is, if one site is unable to provide the required assurances, then the entire Entity is scored accordingly.
	This helps the auditor develop a profile of the site in terms of products produced and the Entity 's ability to ensure adequate labelling and segregation.
C.4 Are other non- SEAFOOD ^{TOMORROW} products produced at the same site? If yes, please provide details.	Regardless of whether similar products are produced, the Entity will have to be able to demonstrate traceability from the point when the claim is first made, until the point of onward dispatch and/or packaging into tamper-proof packaging. This shall be assessed by a site visit demonstrating labelling and segregation of the product at each stage, and the testing of the traceability system with a traceability test and a mass balance.
Subcontractors (only complete if contractors are involved	ed in the supply chain under assessment)
C.5 Are subcontractors involved in the supply chain?	Answer yes or no. The corresponding fields that require answering will remain active.
C.6 If yes, what is full legal name, site address and contact point of the subcontractor/s?	Complete the details of the Entity, including the name, address and contact details. This row should be completed for each respective subcontractor.
C.7 What are the activities undertaken by the subcontractors with regards to product against which SEAFOOD ^{TOMORROW} claims are made?	This should be divided into:



Question	Guidance
C. Audit scope	
Entity activities	
C.8 Is the Entity making a claim for the utilization of novel sustainable feed materials in aquafeeds towards the fortification of farmed fish? If yes, is the Entity involved in: C.8.1 Feed production; and/or C.8.2 Fish farming; and/or C.8.3 Post-harvest handling and packaging.	C.8 Answer yes or no. The corresponding fields that require answering will remain active.
C.9 If involved in feed production, what feed is	
produced: C.9.1 Gilthead seabream; and/or C.9.2 Rainbow trout; and/or	Indicate for which species the feed is being produced, answering yes or no for each.
C.9.3 Common carp	
C.10 If involved in fish farming, what is farmed: C.10.1 Gilthead seabream; and/or C.10.2 Rainbow trout; and/or	Indicate which species are being farmed, answering yes or no for each.
C.10.3 Common carpC.11 If involved in post-harvest handling and	
packaging, what species are involved: C.11.1 Gilthead seabream; and/or C.11.2 Rainbow trout; and/or C.11.3 Common carp	Indicate which species are being handled and/or packaged, answering yes or no for each.
C.12 Is the Entity making a claim for seafood products	
with reduced sodium content without loss of product safety or quality? If yes, is the Entity involved in: C.12.1 Reduced salt smoked salmon; and/or C.12.2 Reduced salt salmon pâté	C.12 Answer yes or no. The corresponding fields that require answering will remain active.
C.13 Is the Entity making a claim to produce digestible, attractive, functional and nutritionally adapted seafood products to youth, pregnant women and seniors? If yes, does the Entity produce: C.13.1 Is the Entity producing fish balls and vegetables with marinara sauce (seniors)	C.13 Answer yes or no. The corresponding fields that require answering will remain active.



Question		Guidance
C. Au	ıdit scope	
	C.13.2 Is the Entity producing fish balls and banana/sweet potato purée (children)	
	C.13.3 Is the Entity producing fish roulade (pregnant women)	
	C.13.4 Is the Entity producing fish sausage (Children)	
	C.13.5 Is the Entity producing common dab fillets and wheat berry salad (pregnant women)	
	C.13.6 Is the Entity producing mussel soup (seniors)	
_	Is the Entity making a claim to implement a sy to decontaminate and improve the safety of d products?	
	C.14.1 If yes, is the Entity involved in the reduction of Norovirus (NoV) in bivalves?	C.14 Answer yes or no.
	C.14.2 If yes, is the Entity involved in the reduction of Listeria in fish?	The corresponding fields that require answering will remain active.
	C.14.3 If yes, is the Entity involved in the removal of Paralytic Shellfish Poisoning (PSP) toxins in bivalves?	
C.15	Is the Entity making a claim for sustainable	
industr	rial processing of seafood products? C.15.1 If yes, is the Entity involved in producing	
	powdered soup with reduced energy consumption.	C.15 Answer yes or no. The corresponding fields that require answering will remain active.
	C.15.2 If yes, is the Entity involved in producing pasteurised fish soup with reduced water and energy consumption.	

In addition to being able to provide assurances that the SEAFOOD^{TOMORROW} claims are trustworthy, products also need to be able demonstrate performance against sustainability, social responsibility and environmental criteria.

3.1.5 Phase 1ii: D. Other certifications

These certifications, while not necessarily crucial, can provide additional information and highlight areas of potential risk.



Question	Guidance	
D. Other Certifications		
D.1 Does the Entity hold SMETA and/or SA8000 third-party social responsibility certification?	Answer yes or no. The corresponding fields that require answering will remain active.	
D.2 Is the product certified by a certification scheme recognised by the Global Sustainable Seafood Initiative?	Answer yes or no. The corresponding fields that require answering will remain active.	
D.3 Does the Entity hold ISO14001 / a third-party environmental responsibility certification?	Answer yes or no. The corresponding fields that require answering will remain active.	

3.1.6 Phase 1ii: E. Social responsibility

Social responsibility must be assessed in all situations, except for those facilities which are certified against recognised social responsibility standards (i.e., SA8000 or SMETA).

Question	Guidance	
E. Social responsibility		
E.1 Does the Entity and all relevant subcontractors have a corporate social responsibility policy?	If Y, proceed to question E.2. If N, terminate the audit, the Entity is ineligible.	
E.2 Does the Entity and all relevant subcontractors have a designated corporate social responsibility manager?	If Y, proceed to question E.3. If N, terminate the audit, the Entity is ineligible.	
E.3 Has the country where the facility to be audit is based, signed the 8 core ILO agreements?	If Y, proceed to question E.4. If N, terminate the audit, the Entity is ineligible.	
E.4 Is the country where the facility to be audited is based, listed as tier 2 watch list or tier 3 as per the US Department of State's most recent Trafficking in Person's Report?	If N, proceed to section F. If Y, terminate the audit, the Entity is ineligible.	

3.1.7 Phase 1ii: F. Sustainability

Sustainability must be assessed in all Entities, except for those facilities which can demonstrate the supply chain under assessment is certified against a recognised sustainable certification schemes (i.e., those recognised by Global Sustainable Seafood Initiative³).

³ https://www.ourgssi.org/gssi-recognized-certifcation/



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Question	Guidance	
F. Sustainability		
Sourcing aquaculture		
F.1 Does the Entity have a sourcing policy for farmed fish or shellfish?	Such a policy shall include determining sustainability of product, and carrying out regular cross checks of supply chain to account for any changes in status. If N, terminate the audit, the Entity is ineligible	
F.2 Is the farmed species introduced to the area where it is farmed?	If N, proceed to section G. If Y, terminate the audit, the Entity is ineligible.	
Sourcing wild caught		
F.3 Is the species ranked in the IUCN redlist as vulnerable, endangered or critically endangered?	Anything with a risk rating of vulnerable, endangered or critically endangered will be out of scope and audit should be terminated.	
F.4 Does the Entity have a sourcing policy for wild fish?	Such a policy shall include determining sustainability of product against recognised standards, and carrying out regular cross checks of supply chain to account for any changes in status. If N, terminate the audit, the Entity is ineligible	

3.1.8 Phase 1ii: G. Environmental responsibility

Environmental responsibility must be assessed in all Entities, except for those facilities which can demonstrate the supply chain under assessment has an environmental policy in line with ISO14000 requirements.

Question	Guidance	
G. Environmental responsibility		
G.1 Does the Entity have an environmental responsibility policy?	Such a policy will be in line with the requirements of ISO14000. If N, terminate the audit, the Entity is ineligible.	

3.1.9 Entity profile

From the above, the auditor will be able to establish the profile of the Entity involved in making SEAFOOD^{TOMORROW} claims and the products involved. Following the completion of Phase 1, the auditor should be able to complete a basic profile of the Entity. This should be corroborated as a point to cover following the opening meeting.



Item	Description (example provided)
Entity name:	Salmo Salar Productions
Entity address	101 Kingston Road Bridlington East Riding of Yorkshire, YO15 1SS United Kingdom
Contact person:	Mr. Andrew Trout
Contact details:	0044 7987 654 321 a.trout@salmosalar.com
Type of audit (Initial, re-assessment or surveillance)	Initial
Entity eligibility	The Entity is eligible to undergo assessment to use a SEAFOOD ^{TOMORROW} claim.
Product/s against which a SEAFOOD ^{TOMORROW} claim will be made.	Product 1 : Salmon Pâté 125g cans - Reduced sodium salmon pâté - sourced from ASC certified Scottish aquaculture farms <i>Salmo salar</i>
Processes undertaken	Processing and transformation Wholesaler and storage
Number of sites and address (repeat as required)	One site, same as auditee address
Other products made in the same facility	Yes: Fisheye - Smoked rainbow trout paste - <i>Oncorhynchus mykiss</i> 125g cans Moby Dick - Smoked salmon - <i>Salmo salar</i> – 150g tube
Use of contractors, activities undertaken and type of product handled.	Subcontractor 1: Simply Storage, 59 Seabass Road, Scarborough, East Yorkshire, YO12 1DL. Activity: Storage of reduced sodium salmon pâte in non-tamper proof packaging. Subcontractor 2: Vince's Vans, 34 Fishing lane, Scarborough, East Yorkshire, YO13 5GL. Activity: Transportation of reduced sodium salmon pâte in non-tamper proof packaging.
Entity activities	SEAFOOD ^{TOMORROW} reduced sodium salmon pâte
Other certifications held by the Entity	Yes. ISO14001
Best practices – Social responsibility	Entity, or subcontractors, have not been prosecuted for social violations and have signed the 8 core ILO agreements and are not a risk according to the US Department of State's most recent Trafficking in Person's Report.
Best practices – Sustainability	Entity has a sourcing policy and only species listed as green by Monterey Bay Aquarium can be sourced as a minimum. Species used is not introduced into the area.



3.2 Phase 2: Evaluation matrix

The following evaluation matrix should be used by the auditor to assess compliance with each of the respective criteria. By reading the table cells from left to right, the auditor shall decide which of the descriptions best fit the performance of the Entity against the audit criteria, and apply the corresponding score (Pass; Pass with Observation; Potential for Improvement; and Corrective Action Required). Only those fields as determined following completion of Phase 1, need be completed.

3.2.1 Utilization of novel sustainable feed materials in aquafeeds towards the fortification of farmed fish

3.2.1.1 A. Feed production

Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence			
A. Feed production								
 A.1.1. Is feed produced ensuring that it has been supplemented with the target nutrients in line with the protocols established for gilthead seabream feed production? Specifically using the following recommended ingredients: Supplementation with DHA-rich algae (Schizochytrium spp.), at levels that provide additional 4 g of DHA per kg of complete feed; 0.01% selenised-yeast, to provide additional 0.1 mg selenium per kg of complete feed; and 0.5% iodine-rich macroalgae (Laminaria digitata or Saccharina latissima), to provide additional 18 mg of iodine per kg of complete feed. 	The exact recommended ingredients are used in the recommended quantities to produce the optimal biofortification blends in the fishmeal; And Quality control occurs at critical input production points, ensuring that the correct quantities, types and ratios of input materials are used.	The ingredients used varies from that recommended although natural alternatives are used and these can be shown to produce the same biofortification blends; And Quality control occurs at critical input production points, ensuring that the correct quantities, types and ratios of input materials are used.	The ingredients used varies from that recommended, and non-natural alternatives are, or may be used. However, these can be shown to produce the same biofortification blends; And Quality control occurs at critical input production points, ensuring that the correct quantities, types and ratios of input materials are used.	There is a significant variation in the type and quantities of ingredients used, without being able to show this produces the same optimal biofortification blends; And / Or Quality control procedures are not sufficient to ensure that the correct quantities and ratios of input materials are used.	Personnel interviews; Documented procedures; Review of production; and Version controls. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.			



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence			
A. Feed production								
A.1.2. Is feed produced ensuring that it has been supplemented with the target nutrients in line with the protocols established for rainbow trout feed production? Specifically using the following recommended ingredient: • 3% iodine-rich macroalgae (Laminaria digitata or Saccharina latissima), to provide a minimum of 100 mg of iodine per kg of complete feed.	The exact recommended ingredients are used in the recommended quantities to produce the optimal biofortification blends in the fishmeal; And Quality control occurs at critical input production points, ensuring that the correct quantities, types and ratios of input materials are used.	The ingredients used varies from that recommended although natural alternatives are used and these can be shown to produce the same biofortification blends; And Quality control occurs at critical input production points, ensuring that the correct quantities, types and ratios of input materials are used.	The ingredients used varies from that recommended, and non-natural alternatives are, or may be used. However, these can be shown to produce the same biofortification blends; And Quality control occurs at critical input production points, ensuring that the correct quantities, types and ratios of input materials are used.	There is a significant variation in the type and quantities of ingredients used, without being able to show this produces the same optimal biofortification blends; And / Or Quality control procedures are not sufficient to ensure that the correct quantities and ratios of input materials are used.	Personnel interviews; Documented procedures; Review of production; and Version controls. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.			
 A.1.3. Is feed produced ensuring that it has been supplemented with the target nutrients in line with the protocols established for common carp feed production? Specifically using the following recommended ingredients: Salmon by-products oil, at levels that guarantee a minimum of 4 g of EPA and DHA per kg of complete feed; 	The exact recommended ingredients are used in the recommended quantities to produce the optimal biofortification blends in the fishmeal; And	The ingredients used varies from that recommended although natural alternatives are used and these can be shown to produce the same biofortification blends; And	The ingredients used varies from that recommended, and non-natural alternatives are, or may be used. However, these can be shown to produce the same biofortification blends;	There is a significant variation in the type and quantities of ingredients used, without being able to show this produces the same optimal biofortification blends; And / Or	Personnel interviews; Documented procedures; Review of production; and Version controls. In the case of any changes, these have been tested and			



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		A. Feed production			
 0.03% selenised-yeast, to provide additional 0.3 mg selenium per kg of complete feed; and 0.5% iodine-rich macroalgae (Laminaria digitata or Saccharina latissima), to provide additional 18 mg of iodine per kg of complete feed. 	Quality control occurs at critical input production points, ensuring that the correct quantities, types and ratios of input materials are used.	Quality control occurs at critical input production points, ensuring that the correct quantities, types and ratios of input materials are used.	Quality control occurs at critical input production points, ensuring that the correct quantities, types and ratios of input materials are used.	Quality control procedures are not sufficient to ensure that the correct quantities and ratios of input materials are used.	demonstrated to have not impacted the claim being made.
 A.2.1 Tests are regularly carried out to ensure that specifications are achieved for gilthead seabream feed. Specifically: 4 g of DHA per kg of complete feed; 0.1 mg selenium per kg of complete feed; and > 15 mg of iodine per kg of complete feed. 	In line with documented procedures and historical testing records, feed produced is tested batch by batch for the initial 3 months of production by an independent testing body and shows that levels are as required; And The documented procedure also requires that tests are carried out every 6 months after the initial 3 months, or following any change in procedure or associated ingredients;	Small variation of nutritional levels is observed, but within acceptable range for each of the values, specifically • For EPA+DHA in feed: 5% less / no maximum limit; • For selenium in feed: ±2% / 0.5 mg Se/kg feed; and • For iodine: ±5% / 20 mg I/kg feed.	There is a documented procedure to test the values of the feed every 6 months, but this is not specifically required for any change of procedure or ingredient.	Tests show significant variation from the required values of any one ingredient; And / Or There is no documented procedure of testing nor evidence of testing been undertaken.	Test results; Documented procedures; and Staff interview.



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		A. Feed production			
	And Test results show that levels of DHA, selenium and iodine are at specified levels.				
A.2.2 Tests are regularly carried out to ensure that specifications are achieved for rainbow trout feed, specifically: • >100 mg iodine/kg feed	In line with documented procedures and historical testing records, feed produced is tested batch by batch for the initial 3 months of production by an independent testing body and shows that levels are as required; And The documented procedure also requires that tests are carried out every 6 months after the initial 3 months, or following any change in	Small variation of nutritional levels is observed, but within acceptable range for each of the values, specifically: • Iodine, no more than 5% variation from the specified level.	There is a documented procedure to test the values of the feed every 6 months, but this is not specifically required for any change of procedure or ingredient.	Tests show significant variation from the required values of any one ingredient; And / Or There is no documented procedure of testing nor evidence of testing been undertaken.	Test results; Documented procedures; and Staff interview.



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		A. Feed production			
	procedure or associated ingredients;				
	And Test results show that				
	levels of iodine are at specified levels.				
A.2.3 Tests are regularly carried out to ensure that specifications are achieved for common carp feed, specifically: • 4 grams of EPA+DHA/kg of feed; • 0.3 mg organic selenium/kg feed; and • >15 mg iodine/kg feed	In line with documented procedures and historical testing records, feed produced is tested batch by batch for the initial 3 months of production by an independent testing body and shows that levels are as required; And The documented procedure also requires that tests are carried out every 6 months after the initial 3 months, or following any change in procedure or associated ingredients; And	Small variation of nutritional levels is observed, but within acceptable range for each of the values, specifically: • For EPA+DHA in feed: 5% less / no maximum limit; • For selenium in feed: ±2% / 0.5 mg Se/kg feed; and • For iodine: ±5% / 20 mg I/kg feed.	There is a documented procedure to test the values of the feed every 6 months, but this is not specifically required for any change of procedure or ingredient.	Tests show significant variation from the required values of any one ingredient; And / Or There is no documented procedure of testing nor evidence of testing been undertaken.	Test results; Documented procedures; and Staff interview.



	Guidance					
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence	
A. Feed production						
	Test results show that levels of DHA, selenium and iodine are at specified levels.					



3.2.1.2 B. Farm management and animal husbandry

		Guidance					
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence		
	В. Г	Farm management and anima	l husbandry				
B.1 All fortified fish cages are clearly labelled as such and clearly identified.	Labelling includes both physical labelling of the actual cages, and labelling of the farm plan; And Labels are in line with specific codes and terminology which are understood throughout the Entity.	Labelling Includes both physical labelling of the actual cages, and labelling of the farm plan; However, specific codes and / or terminology is not used.	Physical labelling of the actual cages; or the farm plan occurs, but not both.	Labelling of the farm cages and/or farm plan indicating fortified fish is inconsistent, unclear or no labelling occurs; And / Or Labelling was found to be inaccurate and/or misleading.	Personnel interviews; Documented procedures; and Visual confirmation.		
B.2 All farm staff are trained and recognise the specific needs of the farmed fish under assessment.	The farm has established and programmed training programmes; And Informative materials and manuals are readily available to personnel. And Personnel demonstrate understanding of specific needs of the farmed fish under assessment and	N/A	While personnel demonstrate understanding of specific needs of the farmed fish, there is no specific training programme in place.	Farm personnel did not demonstrate adequate understanding of the requirements relating to the farmed fish under assessment; And / Or No training or informative materials exist.	Personnel interviews; Documented procedures; and Training records and attendance.		



		Guidance					
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence		
	requirements relating to ensure the requirements relating to the claim are satisfied.						
B.3 Fish is harvested humanely using best practice.	The farm is able to demonstrate knowledge and implementation of best practices for all of the below: • Stocking density; • Use of antibiotics and disease management; • Environmental impact; • Escape mitigation; • Sustainable feed; and • Humane harvesting	N/A	While the farm demonstrates an understanding and use of the best practices for the key aquaculture issues, there is no specific training module to ensure personnel are kept appraised of all issues.	The farm is not able to demonstrate an understanding nor the use of the best practices for the key aquaculture issues.	Personnel interviews; Certificates, training materials, induction information, training programme, informative materials and guidebooks or instructions; and Documented procedures.		



3.2.1.3 C. Post-harvest testing

	Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		C. Post-harvest testin	g		
C.1.1 Tests are regularly carried out to ensure that levels of iodine, omega-3 and selenium are within the acceptable range per 100 g of gilthead seabream fillet. Specifically, these are: • lodine: >12 µg/100 g • Selenium: >23 µg/100 g • EPA+DHA: >850 mg/100 g	Testing demonstrates that levels are at required levels; And Tests are carried out initially for each batch, for the first 2 months, then after demonstrating conformance, every 6 months by independent bodies.	Small variation of nutritional levels is observed, but within acceptable range. Specifically, this is: • lodine levels are not more than 5% less of the required amount. • Selenium levels are not more than 5% less of the required amount. • EPA+DHA are not more than 10% less of the required amount. And Tests are carried out initially for each batch, for the first 2 months, then after demonstrating conformance, every 6	Significant levels of variation are observed, and while the claims are still able to be made, are not with the acceptable range; And / Or Tests are carried out initially for each batch, for the first 2 months, then after demonstrating conformance, every 6 months but conducted in-house.	Levels of selenium or iodine are not within the acceptable range; And / Or Tests are not carried out sufficiently or at regular enough intervals to provide necessary assurances.	Personnel interviews; Documented procedures; and Test results and testing programme.



	Guidance								
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence				
C. Post-harvest testing									
		months by independent bodies.							
C.1.2 Tests are regularly carried out to ensure that minimum levels of iodine are achieved per 100 g of rainbow trout. Specifically, these are: • lodine: >47 µg/100 g	Testing demonstrates that levels are at required levels; And Tests are carried out initially for each batch, for the first 2 months, then after demonstrating conformance, every 6 months by independent bodies.	Small variation of nutritional levels is observed, but within acceptable range. Specifically, this is: • Iodine levels are not more than 5% less of the required amount. And Tests are carried out initially for each batch, for the first 2 months, then after demonstrating conformance, every 6 months by independent bodies.	Significant levels of variation are observed, and while the claims are still able to be made, are not with the acceptable range; And / Or Tests are carried out initially for each batch, for the first 2 months, then after demonstrating conformance, every 6 months but conducted in-house.	Levels of iodine are not within the acceptable range; And / Or Tests are not carried out sufficiently or at regular enough intervals to provide necessary assurances.	Personnel interviews; Documented procedures; and Test results and testing programme.				
C.1.3 Tests are regularly carried out to ensure that minimum levels of iodine, omega-3 and selenium are achieved per	Testing demonstrates that levels are at required levels; And	Small variation of nutritional levels is observed, but within acceptable range. Specifically, this is:	Significant levels of variation are observed, and while the claims are still able to be	Levels of selenium or iodine are not within the acceptable range; And / Or	Personnel interviews; Documented procedures; and Test results and testing programme.				



	Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		C. Post-harvest testin	g		
 100 g of common carp. Specifically, these are: lodine: >18 μg/100 g Selenium: >52 μg/100 g EPA+DHA: >300 mg/100 g 	Tests are carried out initially for each batch, for the first 2 months, then after demonstrating conformance, every 6 months by independent bodies.	not more than 5% less of the required amount. • Selenium levels are	made, are not with the acceptable range; And / Or Tests are carried out initially for each batch, for the first 2 months, then after demonstrating conformance, every 6 months but conducted in-house.	Tests are not carried out sufficiently or at regular enough intervals to provide necessary assurances.	



3.2.2 Sodium reduction in seafood products without loss of product safety or quality

3.2.2.1 A. Procedural

		Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence	
		A. Procedural				
 A.1.1 Are the correct ingredients used in the correct ratios as prescribed for smoked salmon? Specifically: 100 g half fillet of salmon; 5 g of salt with 50% of NaCl molar substitution by KCl; and 0.1% KCl masking aroma - 694409 KCl masking flavouring SYMRISE (optional). 	The ingredients used are in the correct ratios.	N/A	The ratio between ingredients varies from the prescribed recipe although the claim of 'reduced sodium' and 'source of potassium' can still be met according to EU legislation. Variation in ratios may occur due to human errors in weighing but Entities should be aware of the importance of correct weighing.	The ingredients deviate significantly so that the claim in line with EU legislation can no longer be satisfied.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.	



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		A. Procedural			
A.1.2 Are the correct ingredients used in the correct ratios as prescribed for salmon pâté? Specifically: • 80 eggs; • 20 kg minced salmon; • 7 L cream; • 1.5 L sour cream; • 2 L dill; • 50 ml white pepper; • 365 g Saltwell; and • 500 ml water.	The ingredients used are in the correct ratios.	N/A	The ratio between ingredients varies from the prescribed recipe although the claim of 'reduced sodium' can still be met according to EU legislation. Variation in ratios may occur due to human errors in weighing but Entities should be aware of the importance of correct weighing.	The ingredients deviate significantly so that the claim in line with EU legislation can no longer be satisfied.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.
 A.2.1 Is the recipe carried out as prescribed for smoked salmon? Fillets weighed and the correct proportion of NaCl / KCl calculated; Rub fillets with sugar / salt mixture on both sides of salmon, then rest on dry salt for 24 hours at 1°C; Wash fillets with tap water. Remove excess water by draining and paper towels; Dry age the fillets for 24 hours at 1°C with ventilation; Smoke the fillets using one of the 2 following options: 	The correct procedure is followed.	At industrial scales of production, some variation on procedures and quantities may be observed. However, these are explained and justified and shown to have no adverse effects on the final product.	Additional or different measures are implemented but the Entity is able to demonstrate that these do not compromise the essential value of the final product.	The recipe deviates significantly, or additional procedures are used which cannot be justified.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		A. Procedural			
 Natural smoke at 4 hours at 18-19°C; or Natural smoke at 56°C for 7 minutes, and 3 hours and 53 minutes at 18-19°C. In the case of liquid smoke, fillets shall be dipped in a solution of 2:1 (smoke:water) for 1 minute. A.2.2 Is the recipe carried out as prescribed for salmon pâté? Mix all the ingredients together creating a paste; Paste placed in aluminium trays (250 g each) and baked at 125°C for 40 minutes; Cooked paste is cooled in a refrigerated room at -2°C until a temperature of 8°C; and Thereafter, individual trays are individually vacuum packaged and placed in a storage room kept at 4°C until dispatch. 	The correct procedure is followed.	At industrial scales of production, some variation on procedures and quantities may be observed. However, these are explained and justified and shown to have no adverse effects on the final product.	Additional or different measures are implemented but the Entity is able to demonstrate that these do not compromise the essential value of the final product.	The recipe deviates significantly, or additional procedures are used which cannot be justified.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.
A.3 Is there a documented procedure for the recipe detailing processing and cooking steps, and the ingredients?	There should be a documented procedure for the recipe. This should be an officially controlled document, available for team leaders;	N/A	Documented procedures are in place, but there is no established or programmed training schedule.	There are no documented procedures in place; And / Or	Review of procedural manual Version controls; and Prevalence and proof of dissemination of manual.



	Guidance						
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence		
A. Procedural							
	And This is reinforced with training, educational materials and guidance.			Relevant personnel were not aware of the documented procedures or where to find them.			



3.2.2.2 B. Associated products – use of Saltwell (salmon pâté only)

Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		B. Associated Prod	ucts		
B.1 Can Saltwell product only be purchased from approved suppliers?	An approved list of suppliers with a locked procurement of supply from these approved suppliers only; And Product is verified upon receipt to the factory.	The Entity has a list of approved suppliers and a clearly documented procedure to purchase only from these suppliers. However, this is not linked into a locked in electronic purchase system.	The Entity has a list of approved fortified feed suppliers but no documented procedure for the purchase of this product.	There is no system in place for procuring Saltwell from approved suppliers.	Documented procedure for the procurement of Saltwell; and Electronic orders, with use of locked in approved suppliers.
B.2 Is Saltwell product identified as such and segregated from other salt products in dry stores?	Saltwell product is easily identifiable, recognised and segregated from similar products in line with a documented procedure.	While the Entity is able demonstrate that Saltwell product is easily identifiable and recognised, segregation within specific zones do not occur.	Saltwell is identified as such, but there is no documented procedure for its identification and segregation.	Saltwell product cannot be easily identified as such and other salt products may be used accidentally.	Visual confirmation; and Documented procedure.
B.3 Is Saltwell product identified as such on the invoices and traceability documentation?	Documentation such as invoices, receipts, bills of ladings, identify Saltwell products as such, using established coding protocols.	Documentation such as invoices, receipts, bills of ladings, identify Saltwell products as such, but no established coding protocols exists.	Saltwell is identified as such, but there is no documented procedure for doing so.	Saltwell is not identified as such on traceability documentation.	Receipt of dry stores; Interviews; Document records; and Site visit.
B.4 Are the ratios of input and output reasonable and in line with industrial expectations?	Input and output reconciliation are available, which demonstrates use of	Input and output reconciliation are available, which demonstrates use of	Input and output reconciliation are available, which demonstrates use of	No input and output reconciliation is possible.	Review of procurement and financial documents relating to



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		B. Associated Prod	ucts		
	Saltwell is in line with production history; And	Saltwell is in line with production history. However, no protocol for regular input and output reconciliation.	Saltwell is in line with expected yields. However, the Entity has no estimated ratios for expected yields and		purchase of Saltwell; and Input and output reconciliation of Saltwell against
	The Entity demonstrates regular input and output reconciliation.		outputs.		production history.



3.2.3 Produce six digestible, attractive, functional and nutritionally adapted seafood products to youth, pregnant women and seniors.

3.2.3.1 A. Procedural

		Guidance				
Question	Pass	Observation	Improvement possible	Corrective action required	Possible evidence	
		A. Procedural				
A.1.1 Are the correct ingredients and amounts used as prescribed for blue whiting fishballs with marinara sauce?	The recipe is followed in the exact same ratios, using the exact same ingredients.	N/A	The ratio between ingredients varies from the prescribed recipe, however, the target nutritional claim can still be met according to EU legislation.	The ingredients deviate significantly so that the claim is no longer met.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.	
A.1.2 Are the correct ingredients used in the correct ratios as prescribed for fishballs and banana purée?	The recipe is followed in the exact same ratios, using the exact same ingredients.	N/A	The ratio between ingredients varies from the prescribed recipe, however, the target nutritional claim can still be met according to EU legislation.	The ingredients deviate significantly so that the claim is no longer met.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.	



		Guidance				
Question	Pass	Observation	Improvement possible	Corrective action required	Possible evidence	
		A. Procedural				
A.1.3 Are the correct ingredients used in the correct ratios as prescribed for fish roulade?	The recipe is followed in the exact same ratios, using the exact same ingredients.	N/A	The ratio between ingredients varies from the prescribed recipe, however, the target nutritional claim can still be met according to EU legislation.	The ingredients deviate significantly so that the claim is no longer met.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.	
A.1.4 Are the correct ingredients used in the correct ratios as prescribed for fish sausage?	The recipe is followed in the exact same ratios, using the exact same ingredients.	N/A	The ratio between ingredients varies from the prescribed recipe, however, the target nutritional claim can still be met according to EU legislation.	The ingredients deviate significantly so that the claim is no longer met.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.	
A.1.5 Are the correct ingredients used in the correct ratios as prescribed for common dab fillets and wheat berry salad?	The recipe is followed in the exact same ratios, using the exact same ingredients.	N/A	The ratio between ingredients varies from the prescribed recipe, however, the target nutritional claim can still be met according to EU legislation.	The ingredients deviate significantly so that the claim is no longer met.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have	



		Guidance				
Question	Pass	Observation	Improvement possible	Corrective action required	Possible evidence	
		A. Procedural				
					been tested and demonstrated to have not impacted the claim being made.	
A.1.6 Are the correct ingredients used in the correct ratios as prescribed for mussel and fish soup?	The recipe is followed in the exact same ratios, using the exact same ingredients.	N/A	The ratio between ingredients varies from the prescribed recipe, however, the target nutritional claim can still be met according to EU legislation.	The ingredients deviate significantly so that the claim is no longer met.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.	
 A.2.1 Is the recipe carried out as prescribed for blue whiting fishballs with marinara sauce? This should include individual instructions for: Preparation of fishballs; Preparation of the vegetables; Preparation of the marinara sauce; and Conditioning. 	The procedure is followed as per that prescribed for all ingredients.	There is a slight variation in procedure, but these have not been demonstrated to have any adverse effects on final quality and properties.	N/A	The procedure for preparation on one or several of the items does not follow the instructions.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.	



		Guidance			
Question	Pass	Observation	Improvement possible	Corrective action required	Possible evidence
		A. Procedural			
A.2.2 Is the recipe carried out as prescribed for fishballs and banana puree? This should include individual instructions for: • Preparation of fishballs; • Preparation of the puree; • Preparation of the banana chips; and • Conditioning.	The procedure is followed as per that prescribed for all ingredients.	There is a slight variation in procedure, but these have not been demonstrated to have any adverse effects on final quality and properties.	N/A	The procedure for preparation on one or several of the items does not follow the instructions.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.
A.2.3 Is the recipe carried out as prescribed for fish roulade? This should include individual instructions for: • Preparation of the roulades; • Preparation of the potatoes; • Preparation of the sauce; and • Conditioning	The procedure is followed as per that prescribed for all ingredients.	There is a slight variation in procedure, but these have not been demonstrated to have any adverse effects on final quality and properties.	N/A	The procedure for preparation on one or several of the items does not follow the instructions.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.



		Guidance			
Question	Pass	Observation	Improvement possible	Corrective action required	Possible evidence
		A. Procedural			
A.2.4 Is the recipe carried out as prescribed for fish sausages? This should include individual instructions for: Preparation of sausages; Preparation of the sauce; Preparation of the sweet potato; Preparation of the salad; and Conditioning.	The procedure is followed as per that prescribed for all ingredients.	There is a slight variation in procedure, but these have not been demonstrated to have any adverse effects on final quality and properties.	N/A	The procedure for preparation on one or several of the items does not follow the instructions.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.
A.2.5 Is the recipe carried out as prescribed for common dab fillets and wheat berry salad? This should include individual instructions for: Preparation of wheatberry salad; Preparation of the fish fillets; and Conditioning.	The procedure is followed as per that prescribed for all ingredients.	There is a slight variation in procedure, but these have not been demonstrated to have any adverse effects on final quality and properties.	N/A	The procedure for preparation on one or several of the items does not follow the instructions.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.



		Guidance					
Question	Pass	Observation	Improvement possible	Corrective action required	Possible evidence		
		A. Procedural					
A.2.6 Is the recipe carried out as prescribed for mussel and fish soup? This should include individual instructions for: • Preparation of vegetables; • Preparation of the soup; and • Dosing and conditioning of the soup.	The procedure is followed as per that prescribed for all ingredients.	There is a slight variation in procedure, but these have not been demonstrated to have any adverse effects on final quality and properties.	N/A	The procedure for preparation on one or several of the items does not follow the instructions.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.		
A.3 Is there a documented procedure for the recipe detailing processing and cooking steps, and the ingredients?	There is a documented procedure in place for each of the recipes implemented, including all of the relevant steps; And The manual is available to all staff, and supplemented by regular training; And Training occurs on induction, and thereafter every year, or following	N/A	There is a documented procedure in place for each of the recipes implemented, including all of the relevant steps. However, the manual is not supplemented by training; And / Or There is no documented procedure for training to occur at specified intervals.	There is no documented procedure in place; And / Or There is no evidence of training having taken place.	Personnel interviews; Documented procedures; and Version controls; Prevalence and proof of dissemination of manual.		



		Guidance				
Question	Pass	Observation	Improvement possible	Corrective action required	Possible evidence	
		A. Procedural				
	any changes to procedure or introduction of new recipe.					
A.4 Is there a quality control procedure in place at critical stages in production to ensure correct ingredients are added at the correct times.	Quality control occurs at critical control points to ensure that the recipe is followed correctly; And There is a documented procedure highlighting which points need to be controlled, and a checklist noting which key ingredients are to be added and when.	There is a documented procedure highlighting which points need to be controlled, and checklist noting which key ingredients are to be added and when, but not the frequency of when this should be carried out.	Quality control occurs throughout the handling, and is backed up by a documented procedure. However, there is no checklist developed.	No quality control for ingredient input occurs.	Personnel interviews; and Documented procedures.	
A.5.1 Do the most recent test results indicate that nutritional values are being met for fishballs and vegetables with marinara sauce? 6.74 μ g / 100 g of vitamin D 1.2 μ g / 100 g of vitamin B12 8.46 g / 100 g of protein 0.2 g / 100 g of omega 3	Test results indicate that the nutritional values are consistent with the predicted values; And Tests are carried out correctly and regularly, with the last test having	N/A	Test results indicate that the EU threshold value has been met to allow nutritional claim to be stated however, this value falls short of the SEAFOOD ^{TOMORROW} target value.	Test results indicate that the claim is no longer met.	Personnel interviews; Documented procedures; and Test results.	



Question	Pass	Observation	Improvement possible	Corrective action required	Possible evidence
		A. Procedural			
	been carried out within 6 months.				
A.5.2 Do the most recent test results indicate that nutritional values are being met for fishballs and banana purée? 0.297 g / 100 g of omega 3 6.36 μg/ 100 g of vitamin D	Test results indicate that the nutritional values are consistent with the predicted values; And Tests are carried out correctly and regularly, with the last test having been carried out within 6 months.	N/A	Test results indicate that the EU threshold value has been met to allow nutritional claim to be stated however, this value falls short of the SEAFOOD ^{TOMORROW} target value.	Test results indicate that the claim is no longer met.	Personnel interviews; Documented procedures; and Test results.
A.5.3 Do the most recent test results indicate that nutritional values are being met for fish roulade? 0.368 g / 100 g of omega 3 5.12 μ g / 100 g of vitamin D 102 μ g / 100 g of iodine >0.75 μ g / 100 g of vitamin B12	Test results indicate that the nutritional values are consistent with the predicted values; And Tests are carried out correctly and regularly, with the last test having been carried out within 6 months.	N/A	Test results indicate that the EU threshold value has been met to allow nutritional claim to be stated however, this value falls short of the SEAFOOD ^{TOMORROW} target value.	Test results indicate that the claim is no longer met.	Personnel interviews; Documented procedures; and Test results.



Question	Pass	Observation	Improvement possible	Corrective action required	Possible evidence
		A. Procedural			
A.5.4 Do the most recent test results indicate that nutritional values are being met for fish sausage? 0.2 g / 100g of omega 3 5.79 μg / 100 g of vitamin D >0.75 μg / 100 g of vitamin B12	Test results indicate that the nutritional values are consistent with the predicted values; And Tests are carried out correctly and regularly, with the last test having been carried out within 6 months.	N/A	Test results indicate that the EU threshold value has been met to allow nutritional claim to be stated however, this value falls short of the SEAFOOD ^{TOMORROW} target value.	Test results indicate that the claim is no longer met.	Personnel interviews; Documented procedures; and Test results.
A.5.5 Do the most recent test results indicate that nutritional values are being met for common dab fillets and wheat berry salad? 0.625 g / 100 g of omega 3 11.6 µg / 100 g of vitamin D 46 µg / 100 g of iodine >0.375 µg / 100 g of vitamin B12	Test results indicate that the nutritional values are consistent with the predicted values; And Tests are carried out correctly and regularly, with the last test having been carried out within 6 months.	N/A	Test results indicate that the EU threshold value has been met to allow nutritional claim to be stated however, this value falls short of the SEAFOOD ^{TOMORROW} target value.	Test results indicate that the claim is no longer met.	Personnel interviews; Documented procedures; and Test results.



		Guidance				
Question	Pass	Observation	Improvement possible	Corrective action required	Possible evidence	
		A. Procedural				
A.5.6 Do the most recent test results indicate that nutritional values are being met for mussel and fish soup? 3.68 μ g /100 g of vitamin D 1.9 μ g / 100 g of vitamin B12. 5.76 g / 100 g of protein 0.2g / 100 g of omega 3	Test results indicate that the nutritional values are consistent with the predicted values; And Tests are carried out correctly and regularly, with the last test having been carried out within 6 months.	N/A	Test results indicate that the EU threshold value has been met to allow nutritional claim to be stated however, this value falls short of the SEAFOOD ^{TOMORROW} target value.	Test results indicate that the claim is no longer met.	Personnel interviews; Documented procedures; and Test results.	



3.2.4 Implementation of strategies to decontaminate and improve the safety of seafood products

3.2.4.1 A. Procedural- Norovirus (NoV) Depuration

		Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence	
	Д	a. Procedural- Norovirus (No	oV) Depuration			
A.1 Have measures been undertaken to avoid temperature shock?	Upon transfer to depuration tanks oysters should initially be placed in water of similar temperature to that in the harvesting area and then water gradually increased to 18°C at a rate of no more than 1°C per hour; And This must be detailed in a documented procedure, supported by easily accessible guidance, and reinforced by periodic training.	N/A	While the procedure is documented, this is not supported by regular and periodic training and/or supported by easily accessible guidance.	Relevant personnel could not demonstrate accurate understanding of the required process; And / Or The procedures are not followed correctly; And / Or There is no documented procedure.	Personnel interviews; Documented procedures; Review of production; and Training material, plan and records.	
A.2 Have oysters been depurated in seawater with the correct salinity?	Oysters should be kept in water of salinity within 20% of that in the shellfish harvesting area for the duration of the depuration.	There is a slight variation in salinity (on the edges of 20%) although this is largely in keeping with variations observed at the harvesting area.	While the procedure is documented, this is not supported by regular and periodic training and/or supported by	Relevant personnel could not demonstrate accurate understanding of the required process; And / Or	Personnel interviews; Documented procedures; Review of production; and	



		Guidance					
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence		
	Д	A. Procedural- Norovirus (No	oV) Depuration				
			easily accessible guidance.	The procedures are not followed correctly; And / Or There is no documented procedure.	Training material, plan and records.		
A.3 Are oysters exposed to correct temperatures for an adequate time period during depuration?	Oysters should be kept at 18°C for 5 days; And Temperature is regularly tested as per documented protocol.	There is a slight variation in temperature of plus or minus 0.5°C, but this is recorded.	Temperature is controlled at input but is not regularly measured nor recorded as per documented protocol.	Temperature is not reliably controlled and significant fluctuations in temperature are seen; And / Or There is no documented procedure for the control of temperature at either input or output level.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.		
A.4 Are oysters held in trays correctly?	Trays should contain no more than a double layer of shellfish. This requirement is clearly specified within documented procedures.	There is no specific training of this requirement for relevant personnel	While documented procedures require no more than a double layer of shellfish, observations suggest some minor variation from this (for example one or two oysters on top of the 2 nd layer).	There are no documented procedures for requiring no more than a double layer of shellfish; And / Or	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have		



		Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence	
	Д	a. Procedural- Norovirus (No	oV) Depuration			
				Personnel do not understand the requirement; And / Or Observations that the requirement is clearly	not impacted the claim being made.	
A.5 Is the shellfish to water ratio appropriate?	Regular testing following documented protocols of water oxygen levels ensure that required oxygen levels (minimum of 5 mg/L) are maintained at around 7.5 mg/L, (well above the 50% saturation level broadly equivalent to 5 mg/L at 15°C)	Historical testing records have shown very slight lower levels of oxygen than the minimum required, but this has been shown to have been rectified.	There is no specific training of this requirement for relevant personnel; And / Or While documented procedures require this, some minor variation of testing at specific intervals was observed.	not followed. No regular testing of oxygen levels occurs; And / Or Testing shows that levels of oxygen recorded are lower than the minimum required.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.	
A.6 Is there adequate testing of process parameters to demonstrate that depuration is working optimally?	Evidence of appropriate process testing (e.g., water temperature, salinity, water flow rate/dissolved oxygen, shellfish loading, depuration time) along	N/A	N/A	No documented procedure for testing is in place; And / Or	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have	



		Guidance						
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence			
A. Procedural- Norovirus (NoV) Depuration								
	with verification of oyster NoV content as appropriate according to methods described in ISO-15216-1. All testing should be at a frequency appropriate to the scale of the business, follow best practice ⁴ and be in accordance with HACCP principles.			There is no evidence that testing occurs.	been tested and demonstrated to have not impacted the claim being made.			



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⁴ FAO Cefas 2020 Norovirus testing in shellfish – guidance on best practise. https://www.cefas.co.uk/media/yvviczpt/guidance-on-virus-testing-labs-dj-passed.pdf



3.2.4.2 B. Procedural – Reduction of Listeria contamination

		Guidance					
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence		
	В. І	Procedural- Reduction of Liste	ria contamination				
B.1 Has the SEAFOOD ^{TOMORROW} bacteriophage cocktail been sourced from The PTC Phage Technology Center GmbH (PTC)?	Entities should only source the bacteriophage cocktail from PTC and should be able to provide evidence of sourcing such as sale notes/receipts; And Procurement guidelines and protocols limit available source as PTC and is part of an electronic purchase system with locked in suppliers.	Procurement guidelines and protocols limit available source as PTC but this is not part of an electronic purchase system with locked in suppliers.	While the bacteriophage cocktail is only sourced from PTC, this is not an established documented procedure.	The bacteriophage cocktail may be sourced from any supplier.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.		
B.2 Is the solution made to the correct dilution upon receiving the bacteriophage cocktail?	As per documented procedures, the solution should be at 1% dilution (100 ml of bacteriophage cocktail plus 10 L of clean tap water); And	While documented procedures are in place, there is no training to reinforce these procedures.	Small discrepancies have been observed although these have been shown to have no impact on the final product.	There is no documented protocol; And / Or Evidence that solution is made to the incorrect dilution.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have		



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
	В. І	Procedural- Reduction of Liste	eria contamination		
	Evidence of training in place.				not impacted the claim being made.
B.3 Is the correct procedure followed when producing salmon fillets? The procedure followed should be: 1. Spray on the fillets (both sides); or on one side and the slicer/belt- enough to coat. If smoking the salmon, spray should be applied on the fillets (both sides) before smoking. 2. Allow 30 minutes before further product surface manipulation (e.g., before packaging).	There is a documented procedure in line with that established which is enforced by training and operational guides.	N/A	Training occurs, but there is no set interval or programme for this.	There is no documented procedure in place; And / Or Personnel do not demonstrate adequate knowledge of the requirements; And / Or Observations indicate the protocol is not followed correctly.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.
B.4 Is the bacteriophage cocktail stored at the correct temperature?	As per documented procedures, the bacteriophage cocktail is refrigerated between 0 - 8°C from the point of receipt until its use.	Documented procedures are in place but these are not reinforced by periodic training of relevant personnel.	Some personnel potentially involved in handling the bacteriophage cocktail were not aware of the correct storage temperature.	No documented procedure in place; And / Or Evidence that the bacteriophage cocktail is not stored at the correct temperature.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
	В. Г	Procedural- Reduction of Liste	eria contamination		
					not impacted the claim being made.
B.5 Is shelf life of the bacteriophage cocktail clearly labelled and recorded by the Entity?	Shelf life of the bacteriophage cocktail is six months and is clearly indicated on the label. Shelf life on the label is consistent with the Entity's internal records of the different batches.	N/A	N/A	There is no label for the shelf life of the bacteriophage cocktail; And / Or Bacteriophage cocktails were in storage beyond the shelf-life date.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.



3.2.4.3 C. Procedural- Paralytic Shellfish Poisoning (PSP) detoxification

		Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence	
	C. Proced	ural- Paralytic Shellfish Poiso	ning (PSP) detoxification			
C.1 Are shellfish accompanied by traceability documentation, including PSP concentration?	Contaminated shellfish are harvested under controlled conditions with traceability records, including PSP concentrations, being available for Health Authorities.	While PSP concentrations are recorded and can be linked to relevant traceability documentation, these are not routinely included with traceability documentation.	There is no documented protocol to check for PSP documentation on receipt of material.	No information on PSP concentrations nor harvest conditions are available with traceability records.	Personnel interviews; Documented procedures; and Sale receipts.	
C.2 PSP concentration in raw product in within the threshold for which PSP removal is allowed?	Shellfish lower than 3000 µg STX equiv./Kg are not processed with the protocol.	Large quantities of raw material (>20%) are often above the required threshold, albeit these are not processed.	N/A	There is no documented requirement for shellfish to be within the permitted threshold before processing; And / Or There is evidence that this protocol is not clearly followed.	Personnel interviews; Documented procedures; and Test results.	
C.3 Are shellfish preliminarily cleaned?	Shellfish are cleaned in fresh running water for two minutes as part of the documented procedure.	While a documented procedure is in place, this is not reinforced by periodic training.	Personnel demonstrate an understanding of the procedures but there is no documented procedure in place.	There is evidence that this protocol is not clearly followed.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and	



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
	C. Proced	ural- Paralytic Shellfish Poiso	ning (PSP) detoxification		
					demonstrated to have not impacted the claim being made.
C.4 Are shellfish pre-cooked at the required temperature?	In line with documented procedures, shellfish are pre-cooked in fresh water for three minutes at a temperature of 95± 5°C.	Documented procedures are in place, but this is not reinforced by periodic training.	Personnel demonstrate an understanding of the procedures but there is no documented procedure in place.	There is evidence that this protocol is not clearly followed.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.
C.5 Are shellfish prepared correctly?	Flesh is correctly separated from the shell.	Documented procedures are in place, but this is not reinforced by periodic training.	Personnel demonstrate an understanding of the procedures but there is no documented procedure in place.	There is evidence that this protocol is not clearly followed.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.



	Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
	C. Proced	ural- Paralytic Shellfish Poiso	ning (PSP) detoxification		
C.6 Are shellfish cleaned for a second time?	Second cleaning is carried out in fresh water for 30 seconds.	Documented procedures are in place, but this is not reinforced by periodic training.	Personnel demonstrate an understanding of the procedures but there is no documented procedure in place.	There is evidence that this protocol is not clearly followed.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.
C.7 Are shellfish cooked at the required temperature for an adequate time?	Shellfish are cooked in fresh water for nine minutes at a temperature of 98 ± 5°C.	Documented procedures are in place, but this is not reinforced by periodic training.	Personnel demonstrate an understanding of the procedures but there is no documented procedure in place.	There is evidence that this protocol is not clearly followed.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.
C.8 Is separation of edible and non-edible parts conducted if appropriate?	Separation of edible and non-edible parts occurs with scallops. Edible parts consist of adductor muscle and/or gonads.	Documented procedures are in place, but this is not reinforced by periodic training.	Personnel demonstrate an understanding of the procedures but there is no documented procedure in place.	There is evidence that this protocol is not clearly followed.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
	C. Proced	ural- Paralytic Shellfish Poiso	ning (PSP) detoxification		
					been tested and demonstrated to have not impacted the claim being made.
C.9 Are shellfish cooled after cooking?	Shellfish are cooled in fresh running water for approximately 90 seconds. Fresh running water should be within $20 \pm 5^{\circ}$ C.	Documented procedures are in place, but this is not reinforced by periodic training.	Personnel demonstrate an understanding of the procedures but there is no documented procedure in place.	There is evidence that this protocol is not clearly followed.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.
C.10 Are shellfish stored correctly in containers?	Shellfish are stored within containers which are closed hermetically in a non-acidified liquid medium.	Documented procedures are in place, but this is not reinforced by periodic training.	Personnel demonstrate an understanding of the procedures but there is no documented procedure in place.	There is evidence that this protocol is not clearly followed.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.
C.11 Are shellfish sterilised or pasteurised?	Shellfish are sterilised in either an autoclave at 116°C for 51 minutes	Documented procedures are in place, but this is not	Personnel demonstrate an understanding of the procedures but	There is evidence that this protocol is not clearly followed.	Personnel interviews; Documented procedures; and



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
	C. Proced	lural- Paralytic Shellfish Poiso	ning (PSP) detoxification		
	(referred as "Canning"); or pasteurised at 90°C for 10 minutes.	reinforced by periodic training.	there is no documented procedure in place.		Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.



3.2.5 Implement strategies for sustainable industrial processing of seafood products.

3.2.5.1 A. Procedural- Drying procedures

		Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence	
		A. Procedural- Drying p	rocedures			
A.1 Is Refractive WinRWD Drying used to prepare dried fish soup?	Documented procedures show that refractive WinRWD Drying is used to prepare the dried fish soup; And All personnel are aware of the requirements and procedures are reinforced through training and manuals; And Manual follows manufacturer's specifications	N/A	N/A	No documented procedures for WinRWD exist; And / Or The process is not followed correctly.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.	
A.2 Is there evidence of data collection on energy use?	Daily monitoring of energy use demonstrate that energy use is decreased. These results are recorded and directly	N/A	N/A	There is no evidence of data collection on energy use.	Personnel interviews; and Documented procedures.	



		Guidance						
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence			
A. Procedural- Drying procedures								
	linked to traceability records; And							
	Protocols for monitoring and recording of energy use is documented and reinforced by personnel training and manuals.							



3.2.5.2 B. Procedural- Pasteurisation

		Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence	
		B. Procedural- Pasteu	risation			
B.1 Is High-Pressure Processing (HPP) used to pasteurise fish soup?	Documented procedures show that HPP is used to pasteurise the fish soup; And All personnel are aware of the requirements and procedures are reinforced through training and manuals; And Manual follows manufacturer's specifications	N/A	N/A	No documented procedures for HPP exist; And / Or The process is not followed correctly.	Personnel interviews; Documented procedures; and Review of production. In the case of any changes, these have been tested and demonstrated to have not impacted the claim being made.	
B.2 Is there evidence of data collection on energy and water use?	Daily monitoring demonstrates that both energy and water use is decreased. These results are recorded and directly linked to traceability records; And	N/A	N/A	There is no evidence of data collection on energy use.	Personnel interviews; and Documented procedures.	



		Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence	
		B. Procedural- Pasteu	risation			
	Protocols for monitoring and recording of energy and water use is documented and reinforced by personnel training and manuals.					



3.3 Phase 3: Traceability procedures

As with Phase 2, the following evaluation matrix should be used by the auditor to assess compliance with each of the respective criteria, in this case relating to the Entity's ability to provide the necessary assurances relating to traceability. By reading the table cells from left to right, the auditor shall decide which of the descriptions best fit the performance of the Entity against the audit criteria, and apply the corresponding score (Pass; Pass with Observation; Potential for Improvement; and Corrective Action required). Only those fields as determined following completion of Phase 1, need be completed.

3.3.1 Traceability evaluation

3.3.1.1 A. Producers of SEAFOOD^{TOMORROW} fortified fish feed

		Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence	
	A. Pro	oducers of SEAFOOD ^{TOMORRO}	ow fortified fish feed			
A.1. Production of approved feed is segregated spatially and/or temporally from other feed types.	Clearly communicated documented procedure in place, understood by relevant personnel for the correct implementation of segregation of approved feed from other feed types.	N/A	Procedures in place, understood by relevant personnel but regular and/or programmed training of the principles do not occur.	feed is not segregated, or may not be segregated due to a lack of established procedures	Site visits; Personnel interviews; and Documented procedures.	



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
	A. Pro	oducers of SEAFOOD TOMORRO	ow fortified fish feed		
A.2. Approved feed be shall be easily identifiable from other feed at all stages of its handling, production and storage.	Clear procedures in place for use of recognisable and easily understood labels for approved feed, which clearly differentiates this from other feed types; And Feed labelling includes both on the physical product as well as the traceability documentation.	N/A	Procedures in place, understood by relevant personnel but regular and/or programmed training of the principles do not occur.	Evidence that approved feed is not correctly labelled and identifiable on either the physical product or traceability documentation.	Site visits; Personnel interviews; and Documented procedures.



3.3.1.2 B. Feed sourcing, handling and storage of SEAFOOD^{TOMORROW} product

		Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence	
		B. Feed sourcing, handling	and storage			
B.1 Are purchases of approved feed made from approved suppliers?	The farm shall have a list of approved fortified feed suppliers; And This list is part of an electronic purchase system with locked in suppliers; And This is in line with a clearly communicated documented procedure.	The farm has a list of approved suppliers and a clear, documented procedure to purchase only from these suppliers, although this is not linked into a locked in electronic purchase system.	The farm has a list of approved fortified feed suppliers but no documented procedure.	There is no list of approved suppliers; And / Or There is evidence that other feed from other suppliers has been used.	Personnel interviews; Documented procedures; and Sales receipts.	



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		B. Feed sourcing, handling	and storage		
B.2 Are purchases of approved feed registered and reconciled with outgoing in a documented or electronic registry?	There is clearly documented protocol reinforced by periodic training, to register incoming feed, and feed used within the designated inventory system; And The amount of feed purchased, the amount of feed documented as used, and the amount of feed in storage can be reconciled using an electronic registry.	N/A	There is no training in the registry of incoming and outgoing feed.	There is no documented procedure in the registry of incoming and outgoing feed; And / Or The incoming and outgoing feed records, and feed in stock cannot be reconciled.	Personnel interviews; Documents; and Procedure review.
B.3 Is the approved feed clearly identified as such?	Feed shall be identified as fortified on all invoices, delivery notes and proforma invoices.	N/A	Feed is labelled distinctly but is not necessarily apparent that it is SEAFOOD ^{TOMORROW} approved feed.	Approved feed is not identifiable as such on any or all of the related documentation.	Documents; and Visual confirmation.



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		B. Feed sourcing, handling	and storage		
B.4 Is the approved feed clearly labelled as such?	Feed shall be labelled as such using transparent and obvious coding; And Floor plans and designated areas may also be used to further label fortified feed.	Codes used are understood by personnel but may not be clear or understood by outsiders.	Feed is labelled distinctly but is not necessarily apparent that it is SEAFOOD ^{TOMORROW} approved feed.	Approved feed is not labelled as such.	Personnel interviews; Documented procedures; and Visual confirmation.
B.5 Is the approved feed segregated from other feed types so as to eliminate risk of mixing?	Feed is kept separate from other feeds at all stages in handling including storage, transport and feeding following documented procedures; And Feed is stored within segregated identifiable areas.	Feed is segregated in storage, but not located within a designated area.	There is no specific documented procedure or training for the segregation of SEAFOOD ^{TOMORROW} feed.	Feed is not kept separate from other products.	Personnel interviews; Documented procedures; and Visual confirmation.



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		B. Feed sourcing, handling	and storage		
B.6 Is feeding history recorded and accurate records kept and available for up to the previous 3 years?	The Entity shall have a history of feeding records. This shall include the amount of which feed, to which cages, and the dates and times; And This information shall clearly indicate when, where and how much fortified feed is used.	N/A	The feeding history is complete; however, there is no documented procedure on how this should be completed.	not maintained for 3 years;	Personnel interviews; Documented and records.



3.3.1.3 C. Producers of SEAFOOD^{TOMORROW} fish or shellfish

		Guidance				
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence	
		Producers of SEAFOOD ^{TOMORI}	Row fish or shellfish			
C.1 Can the SEAFOODTOMORROW fish or shellfish be identified at all stages during cultivation?	SEAFOODTOMORROW cultivated fish and shellfish is identified as such at all stages during cultivation; And Labelling includes physical labelling on the farms cages or structures, as well as farm plans; And Codes used clearly identify relevant cages as SEAFOODTOMORROW. Identification follows a clearly communicated documented procedure.	Codes used are understood by farm personnel but may not be clear or understood by outsiders.	Procedures in place, understood by relevant personnel but regular and/or programmed training of the principles do not occur.	Evidence that approved fish or shellfish is not correctly labelled, or non-approved shellfish or fish is labelled as SEAFOOD TOMORROW; And / Or Products may not be correctly identified due to a lack of established procedures.	Site visit; Personnel interviews; Review of documented; procedures; and Training programmes.	
C.2 Can SEAFOOD ^{TOMORROW} products be identified as such at all stages of harvesting, depuration, processing, transport and storage?	SEAFOOD ^{TOMORROW} cultivated fish and shellfish is identified as such at all stages of harvesting, depuration,	Codes used are understood by personnel but may not be clear or understood by outsiders.	Procedures in place, understood by relevant personnel but regular and/or programmed	Evidence that approved fish or shellfish is not correctly labelled, or non-approved shellfish	Site visit; Personnel interviews; Review of documented; procedures; and Training programmes.	



		Guida	nce		
Question	Pass	Pass with Observation Potential for Improvement		Corrective Action Required	Possible evidence
	C.	Producers of SEAFOOD ^{TOMORI}	ROW fish or shellfish		
	processing, transport and storage; And		training of the principles do not occur.	or fish is labelled as SEAFOOD ^{TOMORROW} .	
	Labelling includes any relevant traceability documentation as well as the physical product in line with clearly communicated documented procedures.			Products may not be correctly identified due to a lack of established procedures.	
C.3 Is there a system to ensure SEAFOOD ^{TOMORROW} product is segregated from other product during all stages of harvesting, depuration, processing, transport and storage?	SEAFOODTOMORROW cultivated fish and shellfish is segregated from other products at all stages of harvesting, depuration, processing, transport and storage, in line with clearly communicated documented procedures.	N/A	Procedures in place, understood by relevant personnel but regular and/or programmed training of the principles do not occur.	Evidence that approved fish or shellfish is not correctly segregated from non-approved shellfish or fish. And / Or Products may not be correctly segregated due to a lack of established procedures.	Site visit; Personnel interviews; Review of documented; procedures; and Training programmes.



3.3.1.4 D. Entities sourcing SEAFOOD^{TOMORROW} raw material

		Guida	nce		
Question	Pass	s Pass with Observation Poter Impro		Corrective Action Required	Possible evidence
	D.	Entities sourcing SEAFOOD ^{TOM}	MORROW raw material		
D.1 Does the Entity have a process to confirm that the SEAFOOD ^{TOMORROW} raw material received, is that which was ordered (Note: These criteria shall only be examined for those Entities purchasing raw material, or partially processed material, which is already approved as SEAFOOD ^{TOMORROW} product)?	There is a clearly documented procedure in place to verify the status of SEAFOODTOMORROW product on receipt, including cross checking with purchase orders, consignments and delivery notes, as well as physical inspection of the product.	N/A	Procedures in place, understood by relevant personnel but regular and/or programmed training of the principles do not occur.	No evidence that a reliable cross checking of SEAFOOD ^{TOMORROW} raw material occurs; And / Or Significant risk that non approved raw material may be accepted as SEAFOOD ^{TOMORROW} product.	Site visit; Personnel interviews; Review of documented; procedures; and Training programmes.
D.2 If buying SEAFOOD ^{TOMORROW} raw material i.e., fish or shellfish that has received a SEAFOOD ^{TOMORROW} treatment during its cultivation, is there a process to ensure that raw material is purchased from a SEAFOOD ^{TOMORROW} producer?	There is a clearly documented procedure in place to verify the status of SEAFOODTOMORROW product on receipt, including cross checking with purchase orders, consignments and delivery notes, as well as physical inspection of the product.	N/A	Procedures in place, understood by relevant personnel but regular and/or programmed training of the principles do not occur.	No evidence that a reliable cross checking of SEAFOOD ^{TOMORROW} raw material occurs; And / Or Significant risk that non approved raw material may be accepted as SEAFOOD ^{TOMORROW} product.	Site visit; Personnel interviews; Review of documented; procedures; and Training programmes.



3.3.1.5 E. All supply chain Entities - Identification, Labelling & segregation of SEAFOOD^{TOMORROW} product

		Guida	nce		
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
	E. All supp	ly chain Entities - Identificati	on, Labelling & segregatio	n	
E.1 Is there any potential for mixing or substitution between SEAFOOD ^{TOMORROW} products and other products? If so, are there systems in place to prevent mixing or substitution?	Documented procedures are correctly implemented ensuring that mixing or substitution of approved SEAFOOD TOMORROW product with nonapproved product should not occur; And These procedures are understood by all relevant personnel.	N/A	Procedures in place, understood by relevant personnel but regular and/or programmed training of the principles do not occur.	Evidence that mixing or substitution of SEAFOODTOMORROW products occurs with non-approved products; And / Or Procedures in place are not adequate to prevent mixing or substitution.	Site visit; Personnel interviews; Review of documented; procedures; and Training programmes.
E.2.1 Can the Entity identify SEAFOOD ^{TOMORROW} product at all stages throughout the business?	Documented procedures are correctly implemented ensuring that approved SEAFOOD ^{TOMORROW} is correctly labelled and identifiable as such for all stages of production, using explicit and easy to understand codes; And	Codes used are understood by personnel but may not be clear or understood by outsiders.	Procedures in place, understood by relevant personnel but regular and/or programmed training of the principles do not occur.	Evidence that incorrect identification of SEAFOODTOMORROW products occurs; And / Or Procedures in place are not adequate to ensure accurate identification.	Site visit; Personnel interviews; Review of documented procedures; and Training programmes.



		Guida	nce		
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
	E. All supp	oly chain Entities - Identificati	on, Labelling & segregatio	n	
	The procedures for correct identification are understood by all relevant personnel. Documented procedures				
E.2.2 Can the Entity identify SEAFOOD ^{TOMORROW} product in any subcontracted facilities?	are correctly implemented ensuring that approved SEAFOODTOMORROW is correctly labelled and identifiable as such in subcontracted facilities where relevant, using explicit and easy to understand codes; And The procedures for correct identification are understood by all relevant personnel, including external personnel involved in the handling of product.	Codes used are understood by personnel but may not be clear or understood by outsiders.	Procedures in place, understood by relevant personnel but regular and/or programmed training of the principles do not occur	Evidence that incorrect identification of SEAFOOD TOMORROW products occurs; And / Or Procedures in place are not adequate to ensure accurate identification.	External contractor site visit; Personnel interviews; Review of documented; procedures and Training programmes.



Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
	E. All supp	oly chain Entities - Identificati	on, Labelling & segregatio	n	
E.3 Is there a system in place to ensure SEAFOOD ^{TOMORROW} product upon which the claim is being made, is segregated from other products at all stages of handling and production?	Documented procedures are correctly implemented ensuring that approved SEAFOODTOMORROW is segregated from non-approved product for all stages of production; And The procedures for segregation are understood by all relevant personnel.	N/A	Procedures in place, understood by relevant personnel but regular and/or programmed training of the principles do not occur.	Evidence that incorrect or inadequate segregation of SEAFOODTOMORROW products occurs; And / Or Procedures in place are not adequate to ensure segregation.	Site visit; Personnel interviews; Review of documented procedures; and Training programmes.



3.3.1.6 F. Traceability and mass balance tests

		Guida	nce		
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		F. All Entities - Traceat	oility Tests		
F.1 Are records sufficient to allow a full traceback through the Entity from sale of SEAFOOD ^{TOMORROW} product to the point at which the SEAFOOD ^{TOMORROW} claim was first made?	Traceability records are sufficient to allow full traceback from the point of sale to the point at which the SEAFOOD ^{TOMORROW} claim was first made.		While traceability records allow full traceback, the processes and availability of necessary paperwork took time and was not efficiently provided.	Full traceback is not possible.	Traceability exercise/s
F.2 Does SEAFOOD ^{TOMORROW} input material weight match with output material weight?	Input weight can be reconciled with output weight, with expected yields consistent with observed outputs, and expected yield ranges documented and available.	Input weight can be reconciled with output weight, with expected yields consistent with observed outputs. However, the Entity is unable to share yield estimates for reasons of confidentiality.	While input and output weight can be reconciled, the processes and availability of necessary paperwork took time and was not efficiently provided.	Input and output weight cannot be reconciled.	Mass balance exercise/s



3.3.1.7 G. Management practices

		Guidan	ce		
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
		G. All Entities - Manageme	ent practices		
G.1 Does the Entity conduct any due diligence processes?	The Entity conducts periodic mock recalls as well as internal traceability and mass balance audits, and 2 nd party traceability audits; And Review of traceability procedures are taken annually involving input from all relevant personnel.	While the Entity conducts a full range of periodic traceability reviews and tests, these do not involve independent 2 nd parties.	Traceability tests and reviews of traceability processes are undertaken but these are not scheduled.	No traceability tests or review of traceability processes are undertaken.	Personnel interviews; Documented procedures; Reports of traceability assessments and audits; and Timeline of traceability assessments and audits.
G.2 What procedures are in place in the case of a discrepancy, in mass balance or traceability?	The Entity, in line with documented procedure: Informs the clients immediately; Conducts a full recall of all associated product; Informs the Accreditation Body immediately; Conducts a full inquiry into the	N/A	One of the required elements is not included in the mock recall procedure.	There is no recall procedure in place, or 2 of the required elements are not included in the procedure.	Personnel interviews; and Documented procedures



		Guidan	ce		
Question	Pass	Pass with Observation	Potential for Improvement	Corrective Action Required	Possible evidence
G.3 Does the Entity have a staff training programme in place to ensure that all staff are familiar with the purpose and operations of the internal traceability system?	nature of the discrepancy; and Provides the results to the Accreditation Body. The Entity has a periodic training programme in place for all relevant personnel covering the procedures for the internal traceability. This includes: At least once a year refresher course; An induction course for new personnel within 2-weeks of arrival; and An update in the case of any modifications or changes to products handled. Topics covered include mock recall, labelling and identification, segregation and the principles of robust traceability for SEAFOOD ^{TOMORROW} .	The course provided is not specific to SEAFOOD ^{TOMORROW} but this is included in the generic traceability course.	The Entity has a periodic training programme in place for all relevant personnel covering the procedures for the internal traceability. However, this does not include a specific requirement for any update in training in the case of any modifications or changes to products handled.	There is no periodic specific training in place; And / Or Training does not include all of the required elements; or it is not carried out at the required frequency.	Training programme; Training materials; Training attendances; and Personnel interviews.



3.4 Traceability test guidance

A traceability test is used to track a SEAFOOD^{TOMORROW} product through each stage in sourcing, storage, processing, production, packaging and distribution, checking that correct and accurate documents can be linked from each stage and ensuring full transparency in the supply chain. This in turn provides the necessary assurances, by effectively testing that the claims made relating to a SEAFOOD^{TOMORROW} product are being maintained by segregation, labelling and identification. Without a robust and transparent traceability system, the Entity itself will not be able to provide the necessary assurances that SEAFOOD^{TOMORROW} products are not being mixed or replaced by non-SEAFOOD^{TOMORROW} products, effectively invalidating any claim the Entity wishes to make.

Such tests should be used to work backwards (or traceback) from an end product and the associated batch or lot number, through the supply chain and/or production process, until the point of either purchase or up to the moment the raw material (or partially processed product) first makes the SEAFOOD^{TOMORROW} claim. This is a test to ensure that the internal traceability procedure is functionally able to trace a product that is sold (e.g., an enhanced salmon fillet) from the point of sale to its origin with the Entity.

The first step will be to select a final product to trace back through the system to the purchase of the product (as a raw material with SEAFOOD^{TOMORROW} claim), or to the point where the SEAFOOD^{TOMORROW} claim was granted. A final product batch should be selected at random from a list of relevant SEAFOOD^{TOMORROW} products dispatched in the last 2-3 years. Once selected, the auditor should provide a full description of the selected product, including all SEAFOOD^{TOMORROW} certified ingredients, and identification numbers.

As each Entity's traceability system is unique, sometimes even to specific products, the approach to each will need to be tailored to the Entity's management system. However, crucial will be navigating each stage and recording the key information that links each stage in the process. Each stage should have some linking reference including a lot number, batch numbers, product type, dates, quantities, processes, production codes, or other reference that are specific to the product and that process. These references can then be recorded and used to create a narrative and linking references for the batch's journey with and through the Entity. This narrative, that is backed up by evidence, is the proof of traceability and the output from the traceability test.

The template below (Figure 5) has been generated for use during the audit as a guide to record the relevant information and frame this narrative, and provides examples of the type of information needed for a traceability test. First, it will be necessary to complete the species/scientific name(s) for the product being traced and record a description of the finished product. Next, it will be necessary to begin tracing the product back through its time with the Entity. To do this, select a sales invoice or equivalent (the last record of the product in the system), record all of the key information (e.g., document type, identifying number etc) in the 'details' section of the traceability test template. In order to trace this product to the previous step in the process there will need to be some way to identify this previous step, often this will be a lot number or similar.

In the example below there is a batch number on the sales invoice that links to the last stage in the process. This evidence should be recorded in the cell and then it will be necessary to see paperwork for the relevant batch number (or equivalent). Repeat this process of identifying the products movement through the Entity/premises recording all relevant information until the point where the product being traced is either purchased from a supplier or becomes a SEAFOOD^{TOMORROW} certified product.



		Traceability	test			
The traceability te		ed be selecting a product and starting a luct back along every step to the purcha		in production (an invoice of sale for example), trace the		
Species name and (e.g., Atlantic salm		Atlantic salmon (Salmo salar)	Product description	Cold smoked salmon sides: 250g		
Process step	of document review production sheet et	nd details. This should include the type yed (e.g., invoice, bill of lading, c) and identification details (e.g., any units), date, identification of the ch number, etc).	_	ence. This should be the type of reference/s which ok to the next chain in traceability		
	1 Sales note		Invoice reference: SAL280221 Date: 28/02/2020 Product: 42.5kg cold smoked salmon sides			
2 Invoice			1	2020 ence: <mark>SAL280221</mark> umber: <u>SMK280221</u>		
;	3 Packaging producti	on record	Date: 27/02/2020 Batch number: SMK280221 Production batch number/s: PRO260221 and PRO270221			
	4 Production order		Date: 26/02/2021 Product: Cold smoked salmon sides Raw material lot numbers: EXM120221 Production batch number/s: PRO260221 and PRO270221			
	5 Delivery note		Date: 12/02/2 Product: Salr Raw material			

Figure 5. A completed example of a traceability test



3.5 Mass balance test guidance

A mass balance test (otherwise known as an input-output reconciliation) is designed to ensure that the total volume or weight of certified product passing through an Entity and onward to customers can be accounted for, taking into consideration production yields, gains and losses. This is to ensure that there is no deliberate nor accidental mixing of certified and uncertified product, and thereby maintains the integrity of the certification brand.

A mass balance should start when the product selected enters the possession of the Entity being audited (or at the point in the process when the product first makes the SEAFOOD^{TOMORROW} claim). From this point and contrary to the traceability test, the product in question should be traced forward through any processing, packaging, storage etc. until the point of sale.

The amount of the product (e.g., volume or weight) that enters the process (e.g., was purchased or created- for example, fortified to gain SEAFOOD^{TOMORROW} claim) should be equal to the volume eventually sold or disposed of. Of course, during some processes weight will be lost or gained, which is acceptable as long as these weight changes are recorded and in line with expectations. For example, thawing or trimming will cause a drop in product weight, cooking can lead to a loss of moisture while adding oil or mixing with other ingredients will increase the overall weight. The important thing in situations where weight is decreasing or increasing is to record the process and ensure that any drop or gain in weight is within expected tolerance. In most cases, entities will have expected yields, but it may also be that this information is confidential as it directly relates to production methodology. In such a case, expected yields should be obtained before testing, and verified with personnel interviews.

The first step to calculate the mass balance will be to select an incoming batch of SEAFOOD^{TOMORROW} produce or a batch already within the system at the point where the SEAFOOD^{TOMORROW} claim is granted. A common method is to use the raw material batch number identified with the traceability test/s. As raw material batches will often be large amounts in bulk, and not all will be destined for the product being tested, or even for product on which the SEAFOOD^{TOMORROW} claim is being made, it is only required to trace this forward from the point of receipt to the point of sale of the final product batch number, once other use, destinations or raw material still in storage have been accounted for (for example still in storage, other SEAFOOD^{TOMORROW} production batches, production for non-approved products (Figure 6).



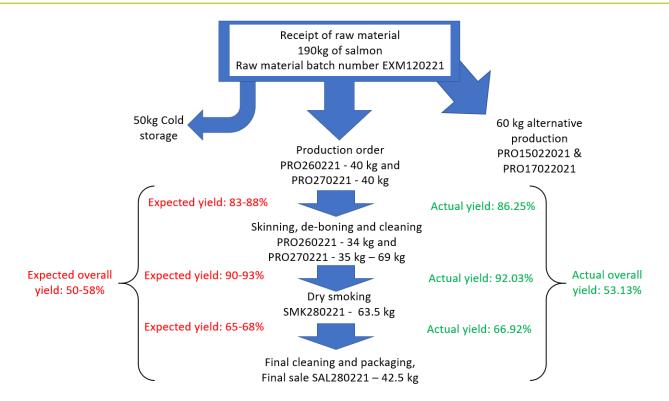


Figure 6. Flow of mass balance diagram and calculations

After accounting for raw material destined for other products, or still in stock, it will be necessary to record the weight at each step and account for any changes in weight of the production batch under assessment.

As with the traceability exercise, it is not possible to explain this process step by step, as each traceability system is unique, so navigating each step and recording the key information that links each step in the process will be unique to the premises audited and, in some cases, unique to the product selected for the test. The key is to ensure that at each stage in the products time with the Entity being audited there is a record and that there is a record of any increase or decrease in volume (to ensure that no uncertified product has been mixed in).

The figures below provide an example in the template that has been generated for use during the audit as a consistent and generic way to record the relevant information and frame this narrative for the mass balance test. However, it should be noted that each example will be different, and while the template may be useful as a guide, it should not necessarily be prescriptive in terms of the data entered.

An example has been provided in the figures of the type of information needed for a mass balance test, using the general structure of the flow diagram above. First, it will be necessary to complete information relating to the raw material input (e.g., species/scientific name(s) for the product being traced and record a description of the finished product), see Figure 7 for an example. Next, it will be necessary to begin tracking the product forward through its time with the Entity. To do this, select a raw product delivery note for a SEAFOOD^{TOMORROW} delivery, and/or equivalent (the first record of the product in the system) and record all of the key information (e.g., document type, identifying number etc) in the input materials to at each stage of processing (see Figure 8 for an example). Record each step in the process (including all identifying numbers, weights and volumes, and processes), to ensure there is no unaccounted-for increase or decrease in product volume, as shown in Figure 8. A mass balance ensures that all certified goods sold are from a certified source by reconciling the incoming goods with those outgoing. Therefore, it will be necessary to record all other destinations of the batch at the centre of the mass balance test, including all product still in stock, sold to



other customers or still in stock as finished product (for example, Figure 9). After all of these sections of the test have been completed it will be necessary to work out the final yields etc, in the outcomes section of the test template (Figure 10).

The final section of the mass balance template (Figure 10), allows the auditor to record the total product that was brought into the Entity, the total that was produced from this raw material, the amount sold and the amount still in stock. This will allow the auditor to calculate the final yield, and to provide an explanation for product weight gain (i.e., more product produced and sold or kept in stock than was brought in) or loss (i.e., less product produced and sold or kept in stock than was brought in). If the yield is within the expected tolerance for the production processes, then the mass balance can be considered to be successful.



	Input/output test								
1	Species name and scientific name (e.g.,	Atlantic calmon (calmo calar)	Description of the final product :						
Atlantic salmon, Salmo salar):		Atlantic salmon (<i>salmo salar</i>)	Description of the final product :	125g vacuum packed.					

Figure 7. Mass balance test template, raw material input section (example)

						_								
	Raw material input													
1	Input material identification (e.g., batch number or other identification):	EXM120221	Input material description:	Frozen salmon fillets	Total amount of raw material in the batch under scrutiny (kg):	190	Amount of Input material in the batch under scrutiny (kg):	80	0					
					Inpu	ıt material to pr	ocessing (addrows if necessary)		_					
1	Description of processing:	Skinning, de-boning and cleaning in preparation for smoking	Date of processing (DD/MM/^^^/):	26/02/2021	Input material identification:	EXM2120221	Production lot number (ar other identification):	PR0260221	Amount of input material used for the lot (kg):	40	Amount of output product for the lot (kg):	35	Yield (= output/input weight)	0.88
2	Description of processing:	Skinning, de-boning and oleaning in preparation for smoking	Date of processing (DD/MM^^^^):	27/02/2021	Input material identification:	EXM2120221	Production lot number (or other identification):	PR0270221	Amount of input material used for the lot (kg):	40	Amount of output product for the lot (kg):	34	Yield (=output/input weight)	0.85
3	Description of processing:	Dry smoking	Date of processing (DD/MM/YYY):	28/02/2021	Input material identification:	PR0260221; PR0270221	Production lot number (or other identification):	SMK280221	Amount of input material used for the lot (kg):	69	Amount of output product for the lot (kg):	63.5	Yield (=output/input weight)	0.92
4	Description of processing:	Cleaning and packaging	Date of processing (DD/MM/YYYY):	28/02/2021	Input material identification:	SMK280221	Production lot number (or other identification):	SAL280221	Amount of input material used for the lot (kg):	63.5	Amount of output product for the lot (kg):	42.5	Yield (=output/input weight)	0.67

Figure 8. Mass balance test template, input material to processing section (example)

	Sales (add rows if necessary)										
1	Sales invoice date (DD/MM/YYY):	28/02/2021	Invoice or sales reference number (or equivalent):	SAL280221	Production lot number (or other/equivalent identification):	SMK280221	Amount of the product sold (kg)	42.5			
Total final product in stock (add rows if necessary)											
1 Date of audit (DDMMYYYY): 03/03/2021 Production lot number (or other/lequivalent identification): NA Warehouse name/number (i.e., Location reference for stock): NA Amount of final product in stock (kg)								N⊮A			
			Raw materi	al still in stock (ad	dd rows if necessary)						
1	Date of audit (DD/MM/YYYY):	03/03/2021	Warehouse name/number (i.e., Location reference for stock):	Walk in freezer	Batch number (or otherlequivalent identification):	EXM120221	Amount of the product in stock on the date of the audit (kg):	50			
			Raw material used	for other product	ion (add rows if necessary)						
1	Date of audit (DD/MM/YYYY):	03/03/2021	Production order reference:	PRO15022021 & PRO17022021	Sales order reference		Amount of the raw material used (kg):	- 60			

Figure 9. Mass balance test template, raw material used for other (example)



	OUTCOMES (add rows if necessary)							
Summary	Production lot number or other reference code:	EXM120221	A. Total raw material in (kg):	80	B. Total final product out (kg):	42.5	Overall yield (%) (total final product (B+C+D) divided by the raw material input (A)):	53.13%
of other	Input raw material identification (e.g., batch number or other identification):	EXM120221	E. Total raw material (kg):	190	A. Total raw material in (kg):	110	Raw material reconciliation (E = A+F+G)	0

	Descriptions					
Summary	Reasons for weight gain or loss	Filleting, trimming, loss of water weight and smoking. This is in line with expectations (see Rørå, A.M.B., Kvåle, A., Markøre, T., Rørvik, K.A., Hallbjoørn, S., Thomassen, S. and Magny, S., 1998. Process yield, colour and sensory quality of smoked Atlantic salmon)	Notes to explain yield calculation	20% (20kg) of raw material went straight into storage and had not been processed by the audit date. 80kg was processed to produce 63.5kg. 63.5 is 79% of 80. Therefore, the yield from processing was 79%.		

Figure 10. Mass balance test, outcomes section (example)



Annex A: Labels and claims made by SEAFOOD^{TOMORROW} products

Aim	Label	Label description and claim made	Introductory text	Full descriptive text
Utilization of novel sustainable feed materials in aquafeeds towards the	Fortified farmed carp	High in selenium and omega-3.	Enhanced levels of EPA and DHA, selenium and iodine, derived from natural sources, providing nutritionally enhanced common carp.	Nutrition can be a relevant tool to tailor the composition of farmed fish in selected nutritional and health valuable nutrients. By adding natural blends of macroalgae, microalgae and yeasts in
fortification of farmed fish.	Fortified farmed trout	Source of iodine.	Enhanced levels of iodine, derived from natural sources, providing nutritionally enhanced rainbow trout.	the fish feeds were able to increase the fillets contents of iodine, selenium and omega-3 polyunsaturated fatty acids in various species, such as Atlantic salmon, rainbow trout, carp and
	Fortified farmed seabream	High in selenium and omega-3.	Enhanced levels of EPA and DHA, selenium and iodine, derived from natural sources, providing nutritionally enhanced gilthead seabream.	gilthead seabream. This natural biofortification strategy enhances the contribution of farmed fish to cover the daily recommended intake of these nutrients.
Sodium reduction in seafood products without loss of product safety or quality.	Salmon pâté	Reduced sodium.	Salmon pâté produced using Saltwell, a naturally derived salt containing a mixture of sodium and potassium chloride, resulting in a product with 25% reduced sodium content.	For health reasons it is desirable to reduce sodium consumption. A natural salt from the Chilean desert containing a mixture of potassium chloride and sodium chloride has been used as a substitute for common table salt (sodium chloride) in this product. This has resulted in a sodium reduction of 25 % while maintaining product quality, safety and shelf-life.

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Aim	Label	Label description and claim made	Introductory text	Full descriptive text
	Smoked salmon	Reduced sodium and source of potassium.	Smoked salmon made with replacing sodium chloride with potassium choride resulting in 25% reduced sodium and a source of potassium.	Sodium chloride was replaced by potassium chloride at two different concentrations (25% & 50%) and two different smoking procedures (natural wood and liquid smoke) and two smoking temperatures (18-19°C/56°C) were investigated. Replacing up to 50% of sodium chloride with potassium chloride could be applied in the seafood industry to reduce sodium levels in the preparation of smoked salmon, assuring a healthier product while maintaining product safety and sensory profile. The consumption of 100g of smoked salmon with reduced sodium chloride levels (25% & 50%) contributed 38.0% and 25.1% of the daily adequate intake of sodium for adults, respectively. These values correspond to 1.9 g and 1.3 g of salt, respectively and are therefore below the limit value recommended by European Food Safety Authority. It was also found that smoked salmon produced with 50% of sodium chloride replaced by potassium chloride was a 'source' of potassium according to EU Legislation.
Produce digestible, attractive, functional and nutritionally adapted seafood products to youth,	Mussel and fish hearty soup with root and tuber vegetables	High in vitamin D; High in vitamin B12; High in protein; Source of omega 3.	Nutritionally enhanced mussel soup with increased vitamin D, vitamin B12, omega 3 and protein, together with low salt content, using naturally derived ingredients.	Product adapted to the seniors: texture easy to chew, strong flavours, nutritional composition. The products were developed to cope with the nutritional needs of the specific target population, focusing on the nutritional elements



Aim	Label	Label description and claim made	Introductory text	Full descriptive text
pregnant women and seniors.				that are usually brought by seafood in the diet. The soup naturally contains omega 3, vitamin D, vitamin B12, and protein, thanks to a careful choice of ingredients.
				The seafood species used (<i>Mytilus edulis and Micromesistius potassou</i>) were selected on sustainability criteria (good health of the stock). This recipe was selected through an European contest between cooking schools from Belgium, France, Portugal, Spain, Sweden and Poland. It was initially developed by students from the University of Kristianstad, Bachelor program in food and meal sciences (Sweden), and modified by the partners of the project SEAFOOD ^{TOMORROW} to meet the target nutritional and functional criteria.
	Blue whiting fishballs with vegetables and marinara sauce	High in vitamin D; High in vitamin B12; High in protein; Source of omega 3.	Nutritionally enhanced fishballs with vegetable meal with increased omega 3, vitamin D, vitamin B12, and protein, together with low salt content, using naturally derived ingredients.	Product adapted to the seniors: texture easy to chew, strong flavours, nutritional composition. The products were developed to cope with the nutritional needs of the specific target population, focusing on the nutritional elements that are usually brought by seafood in the diet. The recipe naturally contains omega 3, vitamin D, vitamin B12, and protein, thanks to a careful choice of ingredients.



Aim	Label	Label description and claim made	Introductory text	Full descriptive text
				The seafood species used (<i>Micromesistius potassou</i>) was selected on sustainability criteria (good health of the stock). This recipe was selected through an European contest between cooking schools from Belgium, France, Portugal, Spain, Sweden and Poland. It was initially developed by students from the Basque Culinary center (San Sebastian, Spain), and modified by the partners of the project SEAFOOD ^{TOMORROW} to meet the target nutritional and functional criteria.
	Fish and cabbage roulade	Source of omega 3; High in vitamin D; High in iodine; High in vitamin B12.	Nutritionally enhanced fish roulade meal with increased omega 3, vitamin D, vitamin B12 and iodine content, using naturally derived ingredients.	Product adapted to the pregnant women: careful choice of ingredients, nutritional composition. The products were developed to cope with the nutritional needs of the specific target population, focusing on the nutritional elements that are usually brought by fish in the diet. The recipe contains naturally omega-3, vitamin D, vitamin B12 and iodine. The seafood species used (<i>Micromesistius</i>
				potassou) was selected on sustainability criteria (good health of the stock). This recipe was selected through an European contest between cooking schools from Belgium, France, Portugal, Spain, Sweden and Poland. It was initially developed by students from the University of Kristianstad, Bachelor program in



Aim	Label	Label description and claim made	Introductory text	Full descriptive text
				food and meal sciences (Sweden), and modified by the partners of the project SEAFOOD ^{TOMORROW} to meet the target nutritional and functional criteria.
	Sautéed common dab with wheatberry salad	High in omega 3; High in vitamin D; High in iodine; Source of vitamin B12.	Nutritionally enhanced fish fillet meal with increased omega 3, vitamin D, vitamin B12 and iodine content, using naturally derived ingredients.	Product adapted to the pregnant women: careful choice of ingredients, adapted nutritional composition. The products were developed to cope with the nutritional needs of the specific target population, focusing on the nutritional elements that are usually brought by seafood in the diet. The recipe contains naturally omega- 3, vitamin D, vitamin B12 and iodine. The seafood species used (<i>Limanda limanda</i>) was selected on sustainability criteria (good health of the stock). This recipe was selected through an European contest between cooking schools from Belgium, France, Portugal, Spain, Sweden and Poland. It was initially developped by students from the University of Kristianstad, Bachelor program in food and meal sciences (Sweden), and modified by the partners of the project SEAFOOD ^{TOMORROW} to meet the target nutritional and functional criteria.



Aim	Label	Label description and claim made	Introductory text	Full descriptive text
	Carp sausage with salad and baked potatoes	Source of omega 3; High in vitamin D; High in vitamin B12.	Nutritionally enhanced fish sausage, with increased omega 3, vitamin B12 and vitamin D using naturally derived ingredients.	Product adapted to children: appealing, adapted nutritional composition. The products were developed to cope with the nutritional needs of the specific target population, focusing on the nutritional elements that are usually brought by seafood in the diet. Nutritionally enhanced fish sausage recipe, with increased omega 3 and vitamin D and Vitamin B12 using naturally derived ingredients. The seafood species used (<i>Cyprinus carpio</i>) was selected on sustainability criteria (good health of the stock). This recipe was selected through an European contest between cooking schools from Belgium, France, Portugal, Spain, Sweden and Poland. It was initially developed by students from Zespół Szkół Nr 6 im. Mikołaja Reja w Szczecinie (Poland), and modified by the partners of the project SEAFOOD ^{TOMORROW} to meet the target nutritional and functional criteria.
	Bib fishballs with sweet potato and banana purée and crispy banana	Source of omega 3; High in vitamin D.	Nutritionally enhanced fishballs, with increased omega 3 and vitamin D using naturally derived ingredients.	Product adapted to children: appealing, adapted nutritional composition. The products were developed to cope with the nutritional needs of the specific target population, focusing on the nutritional elements that are usually brought by seafood in the diet. Nutritionally enhanced fishballs recipe, with increased omega 3 and



Aim	Label	Label description and claim made	Introductory text	Full descriptive text
				vitamin D using naturally derived ingredients. Tasty product with an original sweet and savory taste. The seafood species used (<i>Trisopterus luscus</i>) was selected on sustainability criteria (good health of the stock). This recipe was selected through an European contest between cooking schools from Belgium, France, Portugal, Spain, Sweden and Poland. It was initially developped by students from the Lycée Hotellier et CFA of Marseille (France), and modified by the partners of the project SEAFOOD ^{TOMORROW} to meet the target nutritional and functional criteria.
Implement strategies to decontaminate and improve the safety of seafood products.	Reduced norovirus (NoV)	Treated to improve food safety.	Bivalve molluscs treated to improve consumer safety.	We have confirmed strategies to improve the commercial purification and removal/reduction of norovirus (NoV) from Pacific oysters which may have been exposed to contamination. Our trials have shown that depuration can be effective for certain strains of NoV. A protocol with the method and further information has been produced for seafood producers and processors to follow to reduce health risks, improve seafood safety and benefitting consumers worldwide.



Aim	Label	Label description and claim made	Introductory text	Full descriptive text
	Reduced Listeria monocytogenes	Treated to improve food safety.	Fish products treated to improve consumer safety.	Processed with specific bacteriophages ('bacteria-eaters') as an extra safety hurdle against <i>Listeria monocytogenes</i> .
	Paralytic shellfish poisoning detoxification	Thermally treated to improve food safety.	Bivalve molluscs thermally treated to improve consumer safety.	Bivalve molluscs thermally treated to improve consumer safety.
Put into practice strategies for sustainable industrial processing of seafood products.	Powdered soup	Reduced energy consumption.	Meal produced using energy efficient methods, reducing impact on the environment.	The elaboration of two products with different innovative processing technologies have been studied. Powdered soup with Refractance Window Drying (RWD) and Freeze Drying (conventional technology) and pasteurized fish
products.	Pasteurised fish soup	Reduced energy and water consumption.	Meal produced using energy and water efficient methods, reducing impact on the environment.	soup with Radiofrequency (RF), Thermal Solar Energy (TSE), High Pressure Processing (HPP) and Ultra Heat Treatment (UHT) (conventional technology).
				Powdered fish soup was obtained with an innovative processing technology (RWD) that allowed saving energy, while maintaining at the same time the quality of the product.
				Fish soup was pasteurized with several innovative processing technologies (RF, TSE, HPP) that allowed saving water and energy, while maintaining at the same time the quality of the product. These innovative technologies allow obtaining a safe product, while reducing the environmental footprint and the CO2 emissions.



Annex B: Pre-audit questionnaire

Table 4. Pre-audit questions

Item	Guidance	Description
Entity details		
Entity name	Please provide the full name of the Entity that will carry the SEAFOOD ^{TOMORROW} label	
Entity address	Address of Entity headquarters	
Contact person and details	Full name (e.g., Phone number, email and mobile)	
Type of assessment request	ed	
Please provide details of the type of audit being requested.	This will be: Initial, Re-assessment (due to corrective action) or Surveillance assessment.	
If a Re-assessment is required, please provide details of the issue and the corresponding action plan.	Provide a brief overview of the corrective action required detailing what the issue was and the plan implemented to rectify it.	
Entity eligibility		
Has the Entity (or any subcontractor used) been successfully prosecuted for violating any forced labour or human trafficking laws? Has the Entity (or any subcontractor used) been successfully prosecuted for any environmental law violations?	Please provide a self-declaration declaring that the Entity has not been prosecuted for violating any forced labour or human trafficking laws. If the Entity has been successfully prosecuted for violating any forced labour or human trafficking laws, please indicate the date this occurred and details of the corrective actions, if taken. Please provide a self-declaration declaring that the Entity has not been prosecuted for violating any environmental laws. If the Entity has been successfully prosecuted for violating any environmental laws, please indicate the date this occurred and details of the corrective actions, if taken.	
Has the Entity (or any subcontractor or supplier used) been successfully prosecuted or implicated in the sourcing of Illegal, Unreported or Unregulated (IUU) caught fish or seafood?	Please provide a self-declaration declaring that the Entity has not been prosecuted or implicated in sourcing of IUU fish or seafood. If the Entity has been successfully prosecuted or implicated in sourcing of IUU fish or seafood, please indicate the date this occurred and details of the corrective actions, if taken.	
Is relevant EU legislation for food safety relating to	Please indicate the relevant EU legislation for seafood safety and handling.	



Item	Guidance	Description
fish and shellfish products followed?		
Is there a Food Safety Management Plan in place?	Please provide details of the food safety management plan (i.e., HACCP).	
SEAFOOD ^{TOMORROW} products		
List and define each of the SEAFOOD ^{TOMORROW} products that are seeking certification (Add a new row for each new product)	The description should include: • the final product; • the weight unit, and packaging type; • the species used; and • the fishery or farm sourced (if applicable) Complete list of products is available in	
	Annex 1.	
List and define each of the SEAFOOD ^{TOMORROW} claim/s that is being made and for which product.	The claims being made shall be one listed in Annex 1. Please also specify the product on which this claim is being made.	
Describe the processes undertaken on product for which a SEAFOOD ^{TOMORROW} claim is being made (Add a new row for each new product)	This should only consider activities which involve handling of product against which SEAFOODTOMORROW claims are being made. This should be divided into:	
Are different sites involved in production? If yes, how many? (Add a new row for each new site)	For each separate site include the full address. Include only those sites which are part of the main Entity.	
Please define and describe the sites involved (Add a new row for each new site)	Main activities conducted at the different sites (e.g., fish farm, storage, processing).	
Are other similar products made in the same facility?	Description of final product/s as labelled on final package This should include any raw materials or final products which are similar to the	



Item	Guidance	Description
	products against which a SEAFOOD ^{TOMORROW} claim is being made.	
Subcontractors		
Are subcontractors involved in the supply chain? If yes, how many? (Add a new row for each new contractor)	For each separate subcontractor include the full name and address.	
What are the activities undertaken by the subcontractors with regards to product against which SEAFOOD ^{TOMORROW} claims are made? (Add a new row for each new contractor)	This should only consider activities which involve handling and transformation of product against which SEAFOOD ^{TOMORROW} claims are being made.	
Other certifications held by	the Entity	
Please list any relevant certifications held by the Entity, including, but not necessarily limited to: SMETA and/or SA8000 Any Global Sustainable Seafood recognised certification scheme Environmental responsibility certification such as ISO14000	Please list any relevant certifications held (provide copy/ies).	
Best practices		
Does the Entity hold social responsibility certifications? Does the Entity have a corporate social responsibility policy? Does the Entity have a corporate social responsibility manager?	Please list any social responsibility certifications held (provide copy/ies). Please indicate if a corporate social responsibility policy is in place (provide up to date copy). Please indicate the corporate social responsibility manager (provide organogram).	
Has the country where the facility to be audit is based, signed the 8 core ILO agreements?	Please provide details.	
Is the country where the facility to be audit is based,	Please provide details.	



Item	Guidance	Description
listed as tier 2 watch list or tier 3 as per the US Department of State's most recent Trafficking in Person's Report?		
Does the Entity have a Sustainability sourcing policy?	Please indicate if a sustainability policy is in place (provide up to date copy).	
Is the farmed species introduced to the area where it is farmed?	(Please provide details if appropriate).	
Is the species ranked in the IUCN redlist as vulnerable, endangered or critically endangered?	(Please provide details if appropriate).	
Does the Entity hold environmental certifications or does it have an environmental responsibility policy?	Please list any environmental responsibility certifications held (provide copy/ies). Please indicate if an environmental responsibility policy is in place (provide up to date copy).	

Auditor Name:

SEAFOOD^{TOMORROW}



Nutritious, safe and sustainable seafood for consumers of tomorrow

Grant agreement no: 773400

SEAFOODTOMORROW Pre-Audit Questionnaire

Auditor I	Entity (including logo):	
	Entity name:	
	Completed by (person responsible):	
	Date sent back to auditor:	



1. Objective

SEAFOOD^{TOMORROW} is developing new environmentally-friendly and transparent seafood production and processing methods that will improve European seafood security. In support of this project, your Entity has expressed an interesting in applying for use of the SEAFOOD^{TOMORROW} label for one or more SEAFOOD^{TOMORROW} products. In order to use this label, your Entity must successfully pass an audit against a specifically designed Benchmark Tool that consists of three phases: scope and eligibility; audit of processes; and traceability.

The first step in the process to becoming certified by SEAFOOD^{TOMORROW} is to complete this pre-audit questionnaire. This form is designed to allow a clear definition of the scope by identifying the claims being made, the raw materials sourced, the products handled, procedures carried out and entities involved. This document will provide information for the auditor to begin to complete Phase 1 of the assessment against the Benchmark Tool, prior to an onsite audit.

This questionnaire contains some specific questions on previous prosecutions. Any current issues will render the Entity ineligible to carry the SEAFOOD^{TOMORROW} label and the audit will be immediately terminated. However, in the case that your Entity has been prosecuted, evidence of corrective actions and measures taken will be considered.

2. Guidance on completion

To complete this pre-audit questionnaire, fill in the 'Description' column in the table below (Table 1). Some points to consider as you are answering the questions include:

- Please answer as many questions as possible.
- If you do not have all the information available to answer every question, please indicate this as 'unknown'. This is not necessarily an issue and will be noted and reflected upon in the assessment process.
- If there is not enough space provided to respond, feel free to add rows as necessary.
- Guidance is provided in the table as to what responses are required.

Once the pre-audit questionnaire has been completed, please return to the third-party independent assessor.



Table 1 Pre-audit questions

Item	Guidance	Description
Entity details		
Entity name	Please provide the full legal name of the Entity that will carry the SEAFOOD ^{TOMORROW} label	
Entity address	Address of Entity headadquarters	
Contact person and details	Full name (e.g., Phone number, email and mobile)	
Type of assessment requested		
Please provide details of the type of audit being requested.	This will be: Initial, Re-assessment (due to corrective action) or Surveillance assessment.	
If a Re-assessment is required, please provide details of the issue and the corresponding action plan.	Provide a brief overview of the corrective action required detailing what the issue was and the plan implemented to rectify it.	
Entity eligibility		
Has the Entity (or any subcontractor used) been successfully prosecuted for violating any forced labour or human trafficking laws?	Please provide a self declaration declaring that the Entity has not been successfully prosecuted for violating any forced labour or human trafficking laws. If the Entity has been successfully prosecuted for violating any forced labour or human trafficking laws, please indicate the date this occurred and details of corrective actions, if taken.	



Item	Guidance	Description
Has the Entity (or any subcontractor used) been successfully prosecuted for any environmental law violations?	Please provide a self declaration declaring that the Entity has not been successfully prosecuted for violating any environmental laws. If the Entity has been successfully prosecuted for violating any environmental laws, please indicate the date this occurred and details of corrective actions, if taken.	
Has the Entity (or any subcontractor or supplier used) been successfully prosecuted or implicated in the sourcing of Illegal, Unreported or Unregulated (IUU) caught fish or seafood?	Please provide a self declaration declaring that the Entity has not been successfully prosecuted or implicated in sourcing of IUU fish or seafood. If the Entity has been successfully prosecuted or implicated in sourcing of IUU fish or seafood, please indicate the date this occurred and detials of corrective actions, if taken.	
Is relevant EU legislation for food safety relating to fish and shellfish products followed?	Please indicate the relevant EU legislation for seafood safety and handling.	
Is there a Food Safety Management Plan in place?	Please provide details of the food safety management plan (i.e., HACCP).	
SEAFOOD ^{TOMORROW} products		
List and define each of the final SEAFOOD ^{TOMORROW} products that are seeking certification (Add a new row for each new product)	 the final product brand name; the weight unit, and packaging type (i.e., can, pouch, ready meal); the species used; and 	



Item	Guidance	Description
	 the fishery or farm sourced (if applicable) Complete list of products is avaliable in Annex I. 	
List and define each of the SEAFOOD ^{TOMORROW} claim/s that is being made and for which product.	The claims being made shall be one listed in Annex I. Please also specify the product on which this claim is being made.	
Describe the processes undertaken on a product for which a SEAFOOD ^{TOMORROW} claim is being made (Add a new row for each new product)	This should only consider activities which involve handling of product against which SEAFOODTOMORROW claims are being made. This should be divided into:	
Are different sites involved in production? If yes, how many?	For each separate site include the full address. Include only those sites which are part of the	
(Add a new row for each new site)	main Entity.	
Please define and describe the sites involved.	Main activities conducted at the different sites (e.g., fish farm, storage, processing).	



Item	Guidance	Description
(Add a new row for each new site)		
Are other similar products made in the same facility?	Description of final product/s as labelled on final package. This should include any raw materials or final products which are similar to the products against which a SEAFOOD ^{TOMORROW} claim is being made.	
Subcontractors		
Are subcontractors involved in the supply chain? If yes, how many? (Add a new row for each new contractor)	For each separate subcontractor include the full legal name, address and contact point.	
What are the activities undertaken by the subcontractors with regards to the product/s against which SEAFOOD ^{TOMORROW} claims are made? (Add a new row for each new contractor)	This should only consider activities which involve handling and transformation of product/s against which SEAFOOD ^{TOMORROW} claims are being made.	



Item	Guidance	Description		
Other certifications held by the Entity				
Please list any relevant certifications held by the Entity (and subcontractors if applicable), including, but not neccesarily limited to: SMETA and/or SA8000 Any Global Sustainable Seafood recognised certification scheme Environmental responsibility certification such as ISO14000	Please list any relevant certifications held (provide copy/ies).			
Best practices				
Does the Entity hold social responsibility certifications? Does the Entity hold a corporate social responsibility policy? Does the Entity have a corporate social responsibility manager?	Please list any social responsibility certifications held (provide copy/ies). Please indicate if a corporate social responsibility policy is in place (provide up to date copy). Please indicate the corporate social responsibility manager (provide organogram).			
Has the country where the facility to be audit is based, signed the 8 core ILO agreements?	Please provide details.			
Is the country where the facility to be audit is based, listed as tier 2	Please provide details.			



Item	Guidance	Description
watch list or tier 3 as per the US Department of State's most recent Trafficking in Person's Report?		
Does the Entity have a Sustainability sourcing policy?	Please indicate if a sustainability policy is in place (provide up to date copy).	
Is the farmed species introduced to the area where it is farmed?	(Please provide details if appropriate).	
Is the species ranked in the IUCN redlist as vulnerable, endangered or critically endangered?	(Please provide details if appropriate).	
Does the Entity hold environmental certifications or does it have an environmental responsibility policy	Please list any environmental responsibility certifications held (provide copy/ies). Please indicate if an environmental responsibility policy is in place (provide up to date copy).	



Annex I List of SEAFOOD^{TOMORROW} **products and claims**

Aim	Product	Claim	Detail
Utilization of novel sustainable feed materials in aquafeeds towards the fortification of farmed	Fortified farmed carp	High in selenium and omega 3	Enhanced levels of selenium and omega 3, derived from natural sources, providing nutritionally enhanced common carp.
fish	Fortified farmed trout	Source of iodine	Enhanced levels of iodine, derived from natural sources, providing nutritionally enhanced rainbow trout.
	Fortified farmed seabream	High in selenium and omega 3	Enhanced levels of selenium and omega 3, derived from natural sources, providing nutritionally enhanced gilthead seabream.
Sodium reduction in seafood products without loss of product safety or quality	Salmon paté	Reduced sodium	Salmon pate produced using Saltwell, a naturally derived salt containing a mixture of sodium and potassium chloride, resulting in a product with 25% reduced sodium content.
	Smoked salmon	Reduced sodium and source of potassium	Smoked salmon made with replacing sodium chloride with potassium chloride resulting in 25% reduced sodium and a source of potassium.
Produce digestible, attractive, functional and nutritionally adapted seafood products for youth, pregnant women and seniors.	Mussel and fish hearty soup with root and tuber vegetables	High in vitamin D High in vitamin B12 High in protein Source of omega 3	Nutritionally enhanced mussel soup with increased vitamin D, vitamin B12, omega 3 and protein, together with low salt content, using naturally derived ingredients.



Aim	Product	Claim	Detail
	Blue whiting fishballs with vegetables and	High in vitamin D High in vitamin B12	Nutritionally enhanced fish balls with vegetable meal with increased omega 3, vitamin D,
	marinara sauce	High in protein	vitamin B12, and protein, together with low salt content, using naturally derived
		Source of omega 3	ingredients.
	Fish and cabbage roulade	Source of omega 3	Nutritionally enhanced fish roulade meal with increased
		High in vitamin D	omega 3, vitamin D, vitamin B12 and iodine content, using
		High in iodine	naturally derived ingredients.
		High in vitamin B12	
	Sauté common dab with	High in omega 3	Nutritionally enhanced fish fillet meal with increased omega 3,
	wheatberry salad	High in vitamin D High in iodine	vitamin D, vitamin B12 and iodine content, using naturally derived ingredients.
		Source of vitamin B12	ingredients.
	Carp sausage with	Source of omega 3	Nutritionally enhanced fish
	salad and baked potatoes	High in vitamin D	sausage, with increased omega 3, vitamin B12 and vitamin D using
		High in vitamin B12	naturally derived ingredients.
	Bib fishballs with sweet potato and	Source of omega 3	Nutritionally enhanced fish balls, with increased omega 3 and
	banana purée and crispy banana	High in vitamin D	vitamin D using naturally derived ingredients.
Implement strategies to decontaminate and improve the safety of	Reduced norovirus (NoV)	Treated to improve food safety	Bivalve molluscs treated to improve consumer safety.
seafood products.	Reduced Listeria monocytogenes	Treated to improve food safety	Fish products treated to improve consumer safety.



Aim	Product	Claim	Detail
	Paralytic shellfish poisoning detoxification	Treated to improve food safety	Bivalve molluscs thermally treated to improve consumer safety.
Put into practice strategies for sustainable industrial processing of seafood products.	Powdered soup	Reduced energy consumption	Meal produced using energy efficient methods, reducing impact on the environment.
	Pasteurised fish soup	Reduced energy and water consumption	Meal produced using energy and water efficient methods, reducing impact on the environment.

Annex 5: SEAFOODTOMORROW Label Guidance



FOOD PACKAGING LABEL GUIDELINES

SEAFOODTOMORROW Food Packaging Label Guidelines

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Food Packaging Label Guidelines

1. INTRODUCTION

SEAFOOD^{TOMORROW} aims to develop innovative sustainable solutions for improving the safety and nutritional value of seafood in Europe. To meet the growing demand and market need for safe, nutritious and sustainable seafood, the project will generate new knowledge, techniques and procedures in order to develop commercially viable solutions, with an ultimate aim of improving the socio-economic and environmental sustainability of European seafood production, and the processing industry.

One of the objectives of **SEAFOOD**^{TOMORROW} is to provide assurances on the nutritional quality and safety of products from catch or harvest along the supply chain to the final consumer. As part of this objective, a benchmark tool has been developed to ensure that the correct procedures, techniques and ingredients developed by the project are implemented by those companies wishing to display a **SEAFOOD**^{TOMORROW} label. This label may then reward and provide incentives for seafood primary producers and production facilities, as well as influence consumers when choosing/buying seafood.

The **SEAFOOD**^{TOMORROW} label includes within it a QR code, which is linked to a digital traceability system. This QR code allows information on the quality, safety and nutritional values of the seafood product to be accessed at each stage of the supply chain, as well as allowing the product to be traced back from the point of sale to a catch area or farm. The information in the QR code will also be available to the end consumer through a smartphone application.

This document provides guidance on the use of the **SEAFOOD**^{TOMORROW} label on seafood products that have been developed in accordance with **SEAFOOD**^{TOMORROW} procedures, including:

- List of the possible labels available
- Label translations
- Guidance on the use of labels
- Examples of use of the label

The use of a **SEAFOOD**^{TOMORROW} label is contingent on the entity involved being able to demonstrate that it is able to satisfy the requirements of the benchmark tool through an audit carried out by an accredited independent third party. Permission to use a **SEAFOOD**^{TOMORROW} label will then be granted by the Certified Accreditation Body once a company has successfully passed an audit against the benchmark tool. For more information on the benchmark tool, please see the related guidance document on the **SEAFOOD**^{TOMORROW} Benchmark Tool.

*Please note the **SEAFOOD**^{TOMORROW} label is a prototype and the QR codes used in these quidelines are examples only.

For any queries regarding the **SEAFOOD**^{TOMORROW}
Benchmark Tool and implementation of the **SEAFOOD**^{TOMORROW} label, please contact Hannah
Richardson, **MRAG** (h.richardson@mrag.co.uk)

2. SEAFOODTOMORROW PRODUCTS AND CLAIMS

Product	Claim
Fortified farmed carp	High in selenium and omega 3
Fortified farmed trout	Source of iodine
Fortified farmed seabream	High in selenium and omega 3
Salmon paté	Reduced sodium
Smoked salmon	Reduced sodium and source of potassium
Mussel and fish hearty soup with root and tuber vegetables	High in vitamin D High in vitamin B12 High in protein Source of omega 3
Blue whiting fishballs with vegetables and marinara sauce	High in vitamin D High in vitamin B12 High in protein Source of omega 3
Fish and cabbage roulade	Source of omega 3 High in vitamin D High in iodine High in vitamin B12
Sauté common dab with wheatberry salad	High in omega 3 High in vitamin D High in iodine Source of vitamin B12
Carp sausage with salad and baked potatoes	Source of omega 3 High in vitamin D High in vitamin B12
Bib fishballs with sweet potato and banana purée and crispy banana	Source of omega 3 High in vitamin D
Reduced norovirus	Treated to improve food safety
Reduced Listeria monocytogenes	Treated to improve food safety
Paralytic shellfish poisoning detoxification	Treated to improve food safety
Powered soup	Reduced energy consumption
Pasteurised fish soup	Reduced energy and water consumption

3. SINGLE CLAIM LABEL

3.1. Design construct

The **SEAFOOD**^{TOMORROW} food packaging single claim labels are simple in their design and construction to allow for the claim information and the branding to have hierarchy in the communication of the label. Below is an outline of the features and construct of the label.



Food Packaging Label Guidelines

3.2. Full colour labels

These guidelines show the colour English language versions of the **SEAFOOD**^{TOMORROW} label designs. The same labels are available in French, Italian, Portuguese and Spanish.



Food Packaging Label Guidelines

3.3. Black and white labels

These guidelines show the black and white English language versions of the **SEAFOOD**^{TOMORROW} label designs. The same labels are available in French, Italian, Portuguese and Spanish.



Food Packaging Label Guidelines

3.4. Size

The **SEAFOOD**^{TOMORROW} food packaging labels are 70.5mm in diameter. The label can be scaled according to producers' packaging and labeling requirements, however these dimensions are recommended for full legibility.

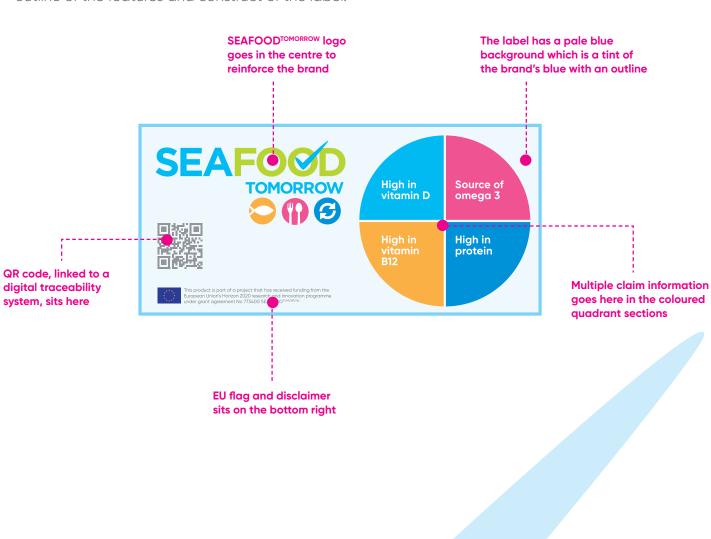


Label Size = 70.5mm diameter

5. MULTIPLE CLAIM LABEL

5.1. Design construct

For products where more than one claim applies, a multi-claim label design is applied. Please see page 4 for a full list of **SEAFOOD**^{TOMORROW} products and corresponding claims. The **SEAFOOD**^{TOMORROW} food packaging multiple claim labels are simple in their design and construction to allow for the claim information and the branding to have hierarchy in the communication of the label. Below is an outline of the features and construct of the label.



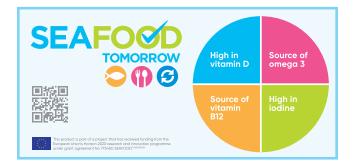
Food Packaging Label Guidelines

5.2. Full colour labels

These guidelines show the colour multiple claim English language versions of the **SEAFOOD**^{TOMORROW} label designs. The same labels are available in French, Italian, Portuguese and Spanish.











Food Packaging Label Guidelines

5.3. Black and white labels

These guidelines show the black and white multiple claim English language versions of the **SEAFOOD**^{TOMORROW} label designs. The same labels are available in French, Italian, Portuguese and Spanish.







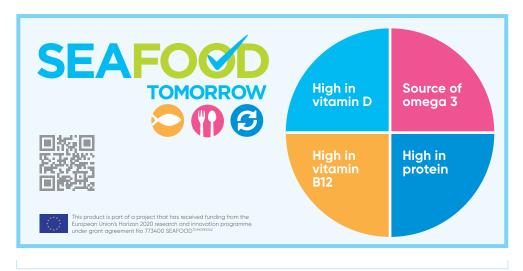




Food Packaging Label Guidelines

5.4. Size

The **SEAFOOD**^{TOMORROW} food packaging labels are 129.5mm in width and 61mm in height. The label can be scaled according to producers' packaging and labeling requirements, however these dimensions are recommended for full legibility.



Label Size = 129.5mm width x 61mm height

5. LABELS ON SAMPLE PACKAGING

The **SEAFOOD**^{TOMORROW} single and multiple claim labels are shown below on sample packaging.





Food Packaging Label Guidelines

6. COLOUR PALETTE

Print

The CMYK values are required when preparing materials for professional print jobs.

In-office printing will provide varied results depending on equipment and as a result, 100% colour accuracy cannot be expected.

Web

The RGB values are required when preparing materials for the web.

It is important to note that the calibration of monitors, desktop printers and projection equipment can vary. Please adhere to the RGB values provided to ensure consistency across all materials for the web.

SEAFOOD ^{TOMORROW} Green	
C 33	
МО	R 183
Y 100	G 212
K O	B 51

SEAFOOD ^{TOMORROW} Light Blue	
C 80	
МО	R O
Y 0	G 185
K O	В 242

SEAFOOD ^{TOMORROW} Pink		
C 0 M 82 Y 10 K 0	R 239 G 85 B 146	

SEAFOOD ^{TOMORROW} Orange	
СО	
M 35	R 251
Y 82	G 176
K O	B 71

SEAFOOD ^{TOMORROW} Medium Blue		
C 100		
M 22	R O	
Y 0	G 147	
K 0	B 216	

Please consult the **SEAFOOD**^{TOMORROW} brand guidelines for more information on the project brand.

Food Packaging Label Guidelines

12. TYPEFACE

Primary – Gilroy (Graphic Design Use Only)

Gilroy is the primary **SEAFOOD**^{TOMORROW} typeface. This simple, modern font helps communicate ideas clearly and confidently. It is highly legible in both print and digital communications. It is available in a range of weights: from light to bold.

Gilroy Regular
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789 @*?!&%+="

Gilroy Extra Bold
ABCDEFGHIJKLMNOPQRSTUVWXYZ
abcdefghijklmnopqrstuvwxyz
0123456789 @*?!&%+="

Food Packaging Label Guidelines

Acknowledgement of EU funding

The **SEAFOOD**^{TOMORROW} label must include the EU emblem and the following text:

This product is part of a project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 773400 SEAFOOD^{TOMORROW.}



This product is part of a project that has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 773400 SEAFOOD^{TOMORROW.}

EU emblem

High-resolution versions of the emblem can be found here: http://europa.eu/about-eu/basicinformation/symbols/flag/



ENGLISH















ITALIAN















SPANISH















PORTUGUESE















FRENCH















ENGLISH















ITALIAN















SPANISH















PORTUGUESE















FRENCH









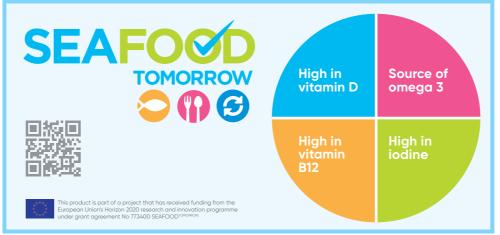


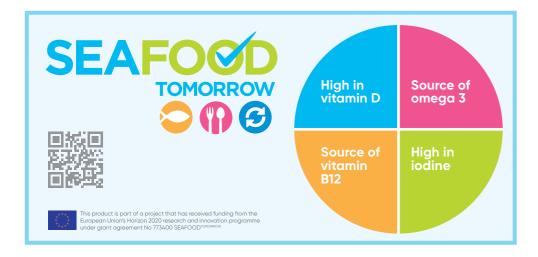


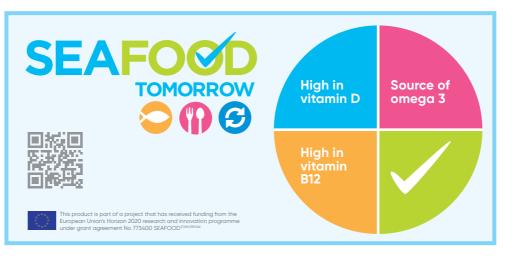


ENGLISH



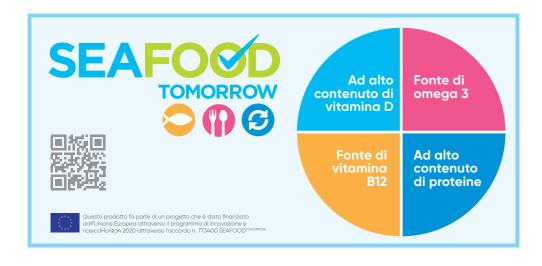






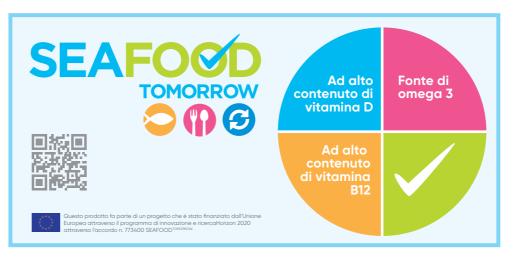


ITALIAN











SPANISH



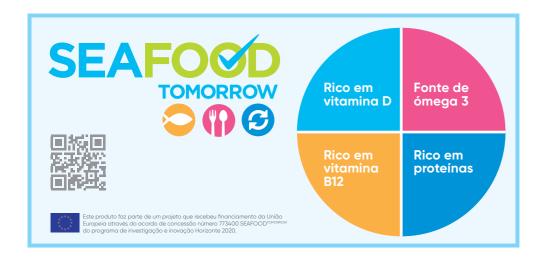




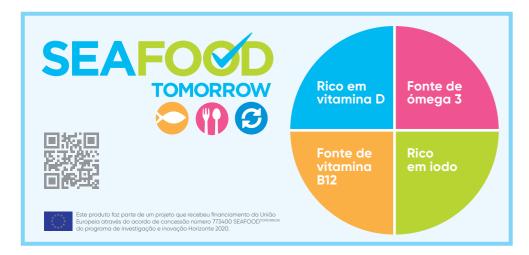


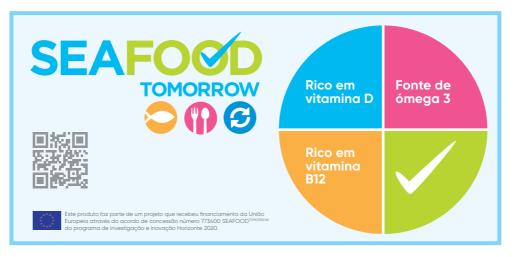


PORTUGUESE



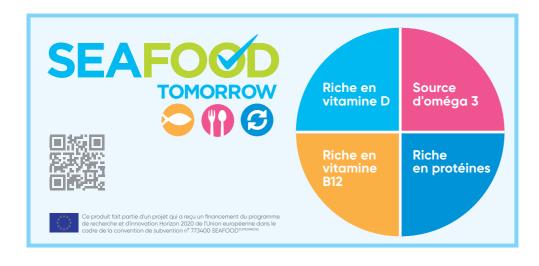






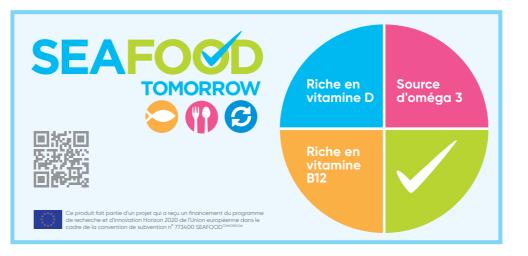


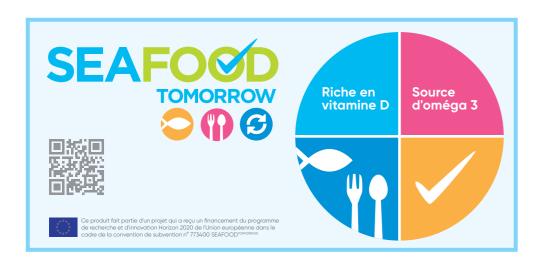
FRENCH







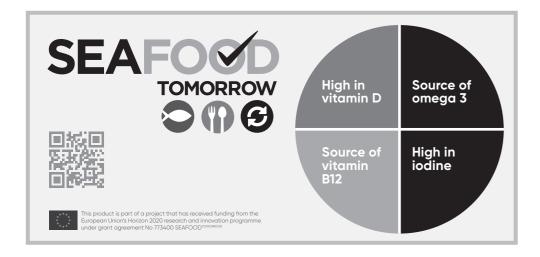


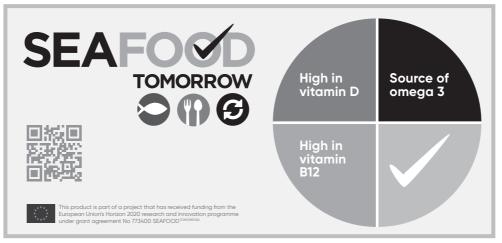


ENGLISH











ITALIAN











SPANISH











PORTUGUESE











FRENCH

