Assessment against SEG Standard:
Component 1: Core requirements
Component 4: Eel buying and trading
Component 5: Eel Farming

Completed by
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From 25 to 26 January 2022

Final Version

Reviewed and Approved by Certification Body:
David Bunt, Sustainable Eel Group, 29 March 2022

1. Introduction

This document is the report of the audit from 25 to 26 of January 2022 carried out for the Gurruchaga Marée group, at its main site in Hendaye. The audit concerned the application of the specifications of the SEG (Sustainable Eel Group) (version 6.0a, December 2019) in pursuit of re-certification. This assessment was carried out for components 1, 4 and 5 of the standard.

The Hendaye site is separated into two distinct entities:

- The "fish tank" part, which consists of a glass eel trade with purchase, storage and resale;
- The "glass eel farm" part, which is in fact an aquaculture farm for growing glass eels.

The glass eels passing through the " Fish tank " section come from local fisheries (Adour and coastal waterways) as well as from all over France. The Gurruchaga Marée group (hereinafter referred to as GM) owns or is in association with 4 centres collecting glass eels for the group (Guérande, Charron, Epargnes, Bourcefranc-le-Chapus). The glass eels collected in these tanks must pass through the Hendaye tank (except for French restocking). The glass eels are then sent to GM's various clients. There are many recipients, including aquaculture farms, direct consumption and European restocking operations. Some of the glass eels purchased by GM are put on the grow-out in the glass eel farm (12% in 2020-2021), after a minimum of 8-10 days in fresh water in the tanks (quarantine period).

Once in the glass eel farm, the glass eels grow for a maximum of 4 to 10 months, until they reach a weight of 5 to 15 grams per eel. An extension of the glass eel farm is underway and will be operational this season. This will give a production capacity of 9 lines of 8 tanks, i.e. 72 tanks in all. Each line is a closed circuit system and is therefore independent of the others. The objective is to produce approximately 100 tonnes of 5-15g eels per season. The facilities can hold 27 tonnes of live fish simultaneously.

When a batch of glass eels is introduced into the grow-out section, the 8 tanks in the line are filled with glass eels for a total of 350-400 kg initially, i.e. about 45-50 kg per tank. This constitutes a single batch. There can therefore be 9 different batches at the same time, one per production line.

Then, during the grow-out phase, the eels are sorted and selected every 30 days or so. These eels are then distributed according to their size, while not mixing the batches. One line is dedicated to eels that grow more slowly than the others.

2. The assessment

The evaluator was Nicolas Belhamiti for Fish-Pass. The audit was carried out in the form of a discussion with Mr Betti Gurruchaga (technical referent of the site) and Mrs Immeln, secretary of the group. The president of the group, Jérôme Gurruchaga, was absent because he was stuck in Morocco (the borders were closed because of the COVID). The audit was conducted on the basis of the documents presented and a complete visit of the site was also made.

3. Client Contact Details

Client Contact Name	Gurruchaga Marée
Client Address	88 route de la corniche, 64700 HENDAYE
Client Email	gurrumaree@wanadoo.fr
Client Phone Number	05 59 56 68 91

4. Results of the assessment

The outcome of this assessment is as follows:

Component 1: General Requirements	**Auditor's findings**	**Weighting**	**Score**
1.1 Commitment to Legality	Responsible	1	1
1.2 Contribution to eel conservation projects (bonus)	Responsible	1	1
1.3 The organisation trades in certified responsibly sourced eels	Responsible	1	1
1.4 Traceability:			
1.4.1 Incoming products, separation and segregation	Aspiring	1	0
1.4.2 Outgoing products	Responsible	1	1
1.4.3 Record keeping and documentation	Responsible	1	1
1.5 Biosecurity & welfare –			
1.5.2 Eel buying & trading: Biosecurity is present and disease is treated rapidly and appropriate	Responsible	1	1
1.5.3 Eel farming: Biosecurity is present and disease is treated rapidly and appropriately	Responsible	1	1
1.5.4 Restocking : The risk of restocked eels introducing disease into wild populations has been assessed and is minimal	Responsible	1	1
	Total	9	8
	Percentage Responsibility Score 7/8:	**89%**	

Finding: For Component 1, a generic requirement, the score is 89% leading to a Responsible assessment.

Component 4: Eel buying and trading	**Auditor's findings**	**Weighting**	**Score**
4.0 Segregation of certified and uncertified eels	Not met	2	0
4.1 The glass eel holding facility is a registered aquaculture production business	Responsible	1	1
4.2 Mortality in storage facility	Aspiring	2	0

4.3 Mortality during transport and initial holding if transported to farm	Aspiring	2	0
4.4 Water quality	Responsible	1	1
4.5 Handling and welfare	Responsible	1	1
4.6 Transport	Responsible	1	1
4.7 The required percentage of glass eels is being used for restocking	Responsible	2	2
	Total	12	6
Percentage Responsibility Score:		**50%**	

Finding: The Bourcefranc storage site for Gurruchaga Marée obtained a score of **50%** for component 4 and can therefore be considered responsible according to the SEG specifications. However, one criterion, 4.0 is not met.

Component 5: Eel farming	**Auditor's findings**	**Weighting**	**Score**
5.0 Segregation of certified and uncertified eels	Aspiring	2	0
5.1 The total mortality rate during the culture is low	Responsible	2	2
5.2 The fish meal/oil ingredients in the feed come from a responsible source	Aspiring	1	0
5.3 Feed is used as efficiently as possible	Responsible	1	1
5.4 Water Quality	Responsible	1	1
5.5 There are minimal ecological impact from effluent discharge	Responsible	1	1
5.6 Grading, slaughter and transportation are carried out with respect to welfare	Responsible	1	1
5.7 The farm provides eel for restocking	NA	NA	NA
5.8 The farm provides eel for are not graded out slow-growers	NA	NA	NA
	Total	9	6
Percentage Responsibility Score:		**67%**	

Finding: The Gurruchaga Marée Group's glass eel farm obtained a score of **67%** for component 5 and can therefore be considered Responsible under the SEG specifications.

Summary of assessment and scoring

Component	Not Met	Aspiring	Responsible
1	**0**	**1**	**8**
4	**2**	**4**	**6**
5	**0**	**3**	**6**
Total	**0**	**8**	**20**
Total Responsibility Score: = 20/30			**67%**

Summary finding:
The Gurruchaga Marée group for glass eel and eel grow-out, with a score of 66% and one criterion not met, does not meet the criteria for obtaining SEG certification.

5. Recommendations:

1. With a score on the responsibility criteria of 67% and one criterion not met, Gurruchaga Marée did not reach the level required to be considered responsible. However, the group has sold less SEG glass eels than it has purchased and has a target of 100% SEG. Thus, a provisional certificate can be issued. A check before the start of the next season will be necessary to issue a final certificate.

2. Regarding criteria 1.4.1 (incoming products) and 4.0 (separation of certified and non-certified eels): Several mixtures of SEG and non-SEG batches took place during the 2020-2021 season. From now on, SEG and non-SEG batches should be properly separated. Gurruchaga Marée has an objective of 100% SEG, but as long as some purchases are made from non-SEG fishermen, one or two pools should be dedicated to these glass eels.

3. Concerning criterion 1.4.2 (outgoing products), it would be interesting to indicate the mortality associated with the batches on the exit vouchers or the transport vouchers of the storage centres during transfers to Hendaye.

4. About criterion 4.3: During a transport for a sale in Greece, a mortality of 19% of the total order occurred. This mortality was caused by a long journey time and very high outside temperatures. After this experience GM decided not to send glass eels so far. This type of problem should not be repeated.

5. Regarding the separation of certified and non-certified eels in the glass eel farm (criterion 5.0), it would be good to introduce only SEG glass eels in all systems. In this way, the responsibility criterion can be met.

6. Concerning criterion 5.1: In order to be able to assess mortality more accurately (conversion of weight into numbers), it would be interesting to separate mortality by eel size.

6. Next Audit

Question	Performance of the Client at Audit	Yes	No
1	Has the client been part of any external investigation which may be of concern to SEG AND/OR been suspended from any other certification standard?	Enhanced Surveillance	**Go to Q2**
2	Has the client received a borderline pass for a Component in its previous audit?	Enhanced Surveillance	**Go to Q3**
3	Does the client only buy and sell product (does not physically handle it?)	Minimum Surveillance	**Go to Q4**
4	All other scenarios	Standard Surveillance	

	Certification Audit	Year 1	Year 2	Year 3	Year 4 Recertification Audit
Minimum Surveillance	On-Site Audit	No Audit	Remote Audit	No Audit	On-Site Audit
Standard Surveillance	On-Site Audit	No Audit	On-Site Audit	No Audit	On-Site Audit
Enhanced Surveillance	On-Site Audit	On-Site Audit	On-Site Audit	On-Site Audit	On-Site Audit

Based on the results of the audit, enhanced surveillance is recommended. Thus, a control audit should take place before the beginning of the next season (by the end of October – beginning of November). The purpose of this audit will be to verify that there has been no mixing between certified and non-certified glass eels from the date this report was sent. This can be done remotely.

7. The Assessment

The tables below give the standard and a rationale for the scores given above. The score is highlighted in the appropriate colour.

Component 1 – Generic requirements (Weighting : 1 for each criterion)	
Criterion 1.1: Commitment to legality	
Responsible indicators	For at least the past two years: the organisation has not been found guilty for any offences relating to eel fishing or trading.
Aspiring indicators	For at least the past 12 months: the organisation has not been found guilty for any offences relating to eel fishing or trading.
Discussion	A major inspection was carried out on 11 February 2021 on all the storage centres (Guérande, Epargnes, Charron, Bourcefranc) as well as the head office in Hendaye by the customs services. This was followed by a free hearing of Jérôme Gurruchaga, the group's president, on 23 September 2021. The documents from this inspection and the minutes drawn up following the hearing were made available for consultation. The checks carried out at the storage centres "did not reveal any anomalies". The inspection of the Hendaye site revealed a discrepancy of -3.55% between the weight of glass eels purchased and the weight of glass eels weighed. This discrepancy is explained by the usual mortality and weight loss. After the investigations and the open hearing, no further action was taken and the case is therefore closed. The criterion has therefore been met.
Score	Responsible

Criterion 1.2: Contribution to Eel Conservation Projects. (Optional bonus score) (The intention is for this to be mandatory from summer 2020)	
Responsible indicators	The organisation donates at least 2% of its profits or at least 20% of its corporate responsibility programme to projects that make a positive contribution to eel conservation or population enhancement, such as Eel Stewardship Funds, River Restoration projects, conservation and education projects.
Aspiring indicators	The organisation donates 1 – 1.99% of its profits or 10 - 20% of its corporate responsibility programme to projects that make a positive contribution to eel conservation or population enhancement, such as Eel Stewardship Funds, River Restoration projects, conservation and education projects.
Discussion	The Gurruchaga Maree organisation has made a significant investment in France over the last 2 years to supply nets and educate fishers to fish and catch glass eels with much lower mortality. This investment not only represents a large financial investment, but is also a major benefit to the eel stock as there is less mortality and fewer glass eels of this precious resource are wasted.
Score	Responsible

Criterion 1.3: The organisation trades in certified responsibly sourced eel	
Responsible indicators	The organisation trades in at least 50% (by number) of certified responsibly sourced eel and has the documentation to demonstrate that.
Aspiring indicators	The organisation trades in 10 – 49.9% (by number) of certified responsibly sourced eel and has the documentation to demonstrate that.
Discussion	The percentage of glass eels certified as SEG has been steadily increasing for the last 4 seasons. Thus, this percentage was 24.5% in 2017-2018, 30.3% in 2018-2019, 32.1% in 2019-2020 and 60.1% in 2020-2021. GM's objective is to get as close as possible to 100% SEG glass eels. The criterion has therefore been met.
Score	Responsible

Criterion 1.4: Traceability	
1.4.1: Traceability - Incoming product, separation and segregation	
Responsible indicators	• Certified and uncertified eel products can be clearly and easily traced back to their source. • Where a fishery or buyer, an electronic tele-declaration system is used. • It operates a clear system which ensures that the product remains separated at all stages from arrival to dispatch from non-certified eel products. • The organisation ensures that any products wishing to make a claim as certified do not contain any non-certified eel-based ingredients. • If resolved through mass- or number- balance calculations, the margin of error does not exceed 2%.

Aspiring indicators	• Certified and uncertified eel products can be traced back to their source. • If segregation is not possible, there are clear and auditable records of the numbers of certified and uncertified eels entering the organisation at each facility. • It can demonstrate through auditable records that the number of certified eels exiting the organisation in a year did not exceed the number that entered. • If resolved through mass- or number- balance calculations, the margin of error does not exceed 5% or if a farm, the 2800 pieces per 1 kg of glass eels is applied.
Discussion	All purchases made by Gurruchaga Marée are systematically transferred to the Hendaye fish tanks, with the exception of French restocking. All the group's purchases are declared via Visiomer by the Hendaye site. The traceability system makes it possible to know the origin of all the glass eels making up a batch, as well as the basins in which they were located: in the storage centre; in the fish tank truck; in Hendaye, and their final destination. It is also easy to know the mortality suffered by each batch at the Hendaye site. The traceability is very well done and makes it possible to easily retrace the path of the glass eels in the batch sold. It would just be necessary to add the mortality of the batch suffered at the storage centre to the transport sheets between the storage sites and Hendaye. The traceability study showed that there were mixtures of SEG and non-SEG glass eels in several cases and at different times during the 2020-2021 season. In addition, more SEG glass eels were purchased than were sold SEG (7% difference) Although traceability is impeccable, the fact that SEG and non-SEG glass eels are mixed together results in this criterion being classified as aspiring.
Score	Aspiring

1.4.2: Traceability - Outgoing product	
Responsible indicators	• Where a fishery or buyer, an electronic tele-declaration system is used • Documentation is well maintained with a maximum of 2% error in the following: • The organisation correctly uses batch-coding for labelling certified product, which can be on the packaging for the product, or included in the documentation (e.g. invoice) with the assignment • All product to be sold as certified by an organisation is accompanied by an invoice which meets the following criteria: - Includes an appropriate batch code - Includes a record of the quantity (no. & weight) of product and to whom it was sold
Aspiring indicators	• Documentation is well maintained. If resolved through mass- or number- balance calculations, the margin of error does not exceed 5% in the following (or if a farm, the 2800 pieces per 1 kg of glass eels is applied): • The organisation correctly uses batch-coding for labelling certified product, which can be on the packaging for the product, or included in the documentation (e.g. invoice) with the assignment. • All products to be sold as certified by an organisation are accompanied by an invoice which meets the following criteria: - Includes an appropriate batch code. - Includes a record of the quantity (no. & weight) of product and to whom it was sold.

Discussion	All glass eels are transported to the main site of the Gurruchaga marée company in Hendaye, except in the case of French restocking. In the case of sales in France, a remote declaration is made on Visiomer and in the case of sales abroad, the TRACES (TRAde Control and Expert System) remote procedure is used. In all cases, an invoice and a delivery note with the batch number and the quantity by weight (kg) of glass eels are issued and associated with the fishing forms corresponding to the batch. All the traceability information for the batch is kept in a folder with the batch number clearly noted. The mortality suffered in Hendaye is also recorded in the folder. Each invoice contains the batch code. If the batch is a SEG certified batch this is stated on the invoice. The associated fishing sheets and a summary table of these sheets make it possible to verify the origin of the SEG glass eels. When, for the same sale, part of the batch is SEG and the other part is not, this is specified on the invoice with the weight of each category of glass eel (SEG or Non SEG). In view of these elements, this criterion is met.
Score	Responsible

1.4.3: Traceability - Record keeping and documentation	
Responsible indicators	• The organisation operates a system that allows the tracking and tracing of all eel from purchase to sale and including any steps in between. In the case of live eels this should include the ability to track each batch delivered to a buyer to be connected back to a water, a time period (maximum duration one month) and specific fisherman/vessel. • If a fisherman or buyer, a tele-declaration system is used to report catches and trade. • The organisation operates a system that also allows for the completion of a batch reconciliation of eel product by weight over a given period. • The organisation maintains records for a minimum of three (3) years.
Aspiring indicators	The above requirements are met except that: • Records have been maintained for less than three (3) years • If a fisherman or trader, a tele-declaration system is planned to be used to report catches and trade in the next season
Discussion	The traceability system used by the GM group allows eels to be tracked from purchase from the fisherman through storage in Hendaye and in the various storage centres to sale. The Hendaye site has documentation of all glass eels bought and sold by the site in paper and digital form. The fishing records are kept in Hendaye. The Gurruchaga marée organisation keeps the records for more than three years. The purchase of glass eels is tele-declared on the FranceAgrimer website (Visiomer) in accordance with French legislation. Thus, this criterion can be considered responsible.
Score	Responsible

Criterion 1.5: Biosecurity & welfare – Eel and eel products are provided with minimal risk of diseases, parasites and alien species	
1.5.2 Eel buying & trading: Biosecurity is present and disease is treated rapidly and appropriately	
Responsible indicators	• The use of chemicals follows legal requirements of the appropriate EU regulations and of the country concerned. • The facility has the appropriate permissions to operate from the relevant licensing authority. • An effective and documented biosecurity plan is in place and there is evidence that it is being followed. • Records are available showing regular monitoring of health and a possible sign of stress according to the facility's plan (including the completion of microscope parasite checks) and daily mortality is recorded. • Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility.
Aspiring indicators	• The use of chemicals follows legal requirements of the appropriate EU regulations and of the country concerned. • The facility has the appropriate permissions to operate from the relevant authority • An effective and documented biosecurity plan is in place and there is evidence that it is being followed. • Eels are regularly monitored for health and possible signs of stress (although this might not be documented) and daily mortality is recorded. • Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility.
Discussion	The facility is fully licensed. The animal health approval number is FR 64 260 001 CE. The only chemical product used is Halamid, a universal disinfectant specific for aquaculture. The cleaning of the tanks, trucks and premises is carried out regularly and recorded. Mortality is recorded daily and dead glass eels are placed in a freezer and rendered at the end of the season. Continuous monitoring of oxygen, pH and temperature parameters is carried out using probes connected to computers. In addition to this, daily monitoring is carried out and recorded. Biosafety instructions are posted on the wall and can be easily consulted. There is a real HACCP (Hazard analysis and critical control points) approach with a document written with the support and critical advice of a veterinarian. No medication is used. The criterion is therefore met.
Score	Responsible

1.5.3 Eel farming: Biosecurity is present and disease is treated rapidly and appropriately	
Responsible indicators	• The facility has the appropriate permissions to operate from the relevant authority. • The use of chemicals follows legal requirements of the EU and of the country concerned. • An effective and documented biosecurity plan is in place and there is evidence that it is being followed. • Daily records are available showing monitoring of fish health and signs of stress and daily mortality is recorded.

	• Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility. UV is used at an appropriate level and separation between tanks.
Aspiring indicators	• The facility has the appropriate permissions to operate from the relevant licensing authority. • The use of chemicals follows legal requirements of the EU and of the country concerned. • An effective and documented biosecurity plan is in place and there is evidence that it is being followed. • Eels are regularly inspected for disease (although this may not be documented) and daily mortality is recorded. Records are maintained according to the Medicines Regulations for use of any medicines and/or chemicals used in the facility.
Discussion	The installation has the appropriate authorisations to operate from the competent authority. The eel farming part is a Classified Installation for the protection of the environment (AP 64 2019 09 24 005). During the cleaning of a series of 8 basins, the following procedure is followed (as a reminder, each system of 8 basins is independent of the others): 35 kg of caustic soda is injected into the water circulation system for 24 hours in order to increase the pH to 11.5. The system is then completely rinsed with clean water. For the other equipment, Halamid is used for disinfection. Each system of 8 tanks has its own equipment. There is a biosecurity plan that is followed and all cleaning operations are recorded. The HACCP document is very comprehensive and contains a Risk Analysis which has enabled preventive measures to be put in place to minimise the possibility of biosecurity problems occurring. Ponds are monitored daily and mortality is carried out every two hours. This monitoring is recorded. There is no medication used on the farm. The only exception to this would be the occurrence of a microbial disease. In this case veterinary advice would be taken and the application of an appropriate treatment submitted for approval (oxytetracycline). The water is continuously recirculated in the circuit and passes through a UV steriliser as well as a drum filter and a biofilter. In view of all these elements we consider this criterion to be responsible.
Score	

1.5.4 Restocking: The risk of restocked eels introducing disease into wild populations has been assessed and is minimal	
Responsible indicators	Eels are tested before restocking and found to be free of disease AND/OR eels are from a known source which is tested on at least an annual basis and known to be free of disease.
Aspiring indicators	Eels are tested before restocking when first sourced from a new area, and periodically (at least annually) thereafter to ensure they are free from disease.
Discussion	Each batch of glass eels for restocking is tested. The test result is then sent directly to the project leader.
Score	Responsible

Summary scores for Component 1	
Not met	0
Not applicable	0
Aspiring	1
Responsible	8
Total possible	9
% Responsibility (Responsible / Total possible)	**89%**

Component 4 - Eel buying and trading	
Criterion 4.0: Segregation of certified and uncertified eels	
Weighting: 2	
Responsible indicators	Certified and non-certified are kept separated, from point of collection through holding to sale and onward transport.
Aspiring indicators	None.
Discussion	At the Hendaye site, there are 4 tanks dedicated to restocking and 6 tanks dedicated to consumption. However, there are no tanks specifically dedicated to SEG glass eels. During the audit, it was noted that for the 2020-2021 season, there was a mixture of SEG glass eels with non-SEG glass eels in various cases: • Batch not sold SEG with SEG glass eels in these batches. In this case, this is not a problem with regard to the standard. • Batch with separation of SEG sold weight and non SEG sold weight. In this case it happens that the whole batch is in the same pool, and therefore SEG and non-SEG glass eels are mixed. • Overlapping of several orders in the same pools with sometimes SEG and non SEG orders simultaneously. • Sale of a 100% SEG batch with a share of non-SEG glass eels in it. For the 2020-2021 season, this concerns 5 batches with an average of 15% of non-SEG glass eels in these batches. In the end, there were more glass eels bought from SEG than sold to SEG. This difference is 7%. Despite the fact that there were no more SEG glass eels sold than purchased, there was some mixing. Segregation was not respected and therefore this criterion was not met.
Score	Not met

Criterion 4.1: The Glass eel holding facility is a registered Aquaculture Production Business	
Weighting: 1	
Responsible indicators	The Glass eel holding facility is a registered Aquaculture Production Business.
Aspiring indicators	The facility is not a registered Aquaculture Production Business, but has credible plans to register within the next 6 months.
Discussion	The company has an aquacultural zoosanitary approval: FR 64 260 001 CE
Score	Responsible

Criterion 4.2: Mortality in storage facility	
Weighting: 2	
Responsible indicators	Mortality rate over the season is less than 2% on average.
Aspiring indicators	Mortality rate over the season is less than or equal to 5% on average but greater than or equal to 2%.
Discussion	The overall mortality rate of glass eels purchased by GM is 2.2% in 2019-2020 and 3.6% in 2020-2021. This rate corresponds to the total mortality (mortality taken into account for the different storage centres and for the Hendaye site) This criterion is therefore aspiring.
Score	Aspiring

Criterion 4.3: Mortality during transport and initial holding if transported to farm	
Weighting: 2	
Responsible indicators	• Buyers source at least 90% of their eels from certified suppliers. **OR** • Mortality during transport and for the first week at the farm is less than 2% on average.
Aspiring indicators	• Buyers source 50% - 89.9% of their eels from certified suppliers. **OR** • Mortality during transport and for the first week at the farm is less than or equal to 3% on average but greater than or equal to 2% on average.
Discussion	All glass eels purchased by GM are sent from the Hendaye site. In 2021 there was a large mortality during a transport to Greek customers. This was an unprecedented transport and the journey was too long and too hot, resulting in 75kg mortality out of 395kg, or 19% mortality. This incident was well documented and resolved with the Greek authorities. GM does not wish to repeat this unfortunate experience and will not send any more glass eels this far. In parallel 3 clients (grow-out farms), were randomly selected and contacted to find out the mortality rates. Two farms responded to our request: - The NOORD company found a transport mortality of 0.95% at the last shipment. The average mortality of orders in the first week at the farm is 1%. - The Gotting company reported a mortality of 0.72% following transport and 1% after the first week on the farm. Last year there was an episode with a very high mortality, but this was not due to the quality of the fish, but to a logistical fault. In view of the mortalities obtained from the farms contacted, we consider this criterion to be sensitive. However, the Greek episode should not be repeated.
Score	Aspiring

Criterion 4.4: Water quality	
Weighting: 1	
Responsible indicators	• A system is in place that is expected to keep key water quality parameters within suitable tolerances for healthy eel survival (e.g. Ammonia, Suspended Solids, pH, Oxygen). • Water quality management procedures are in place including regular monitoring of relevant parameters which shows that water quality is always high and stable.

	• The facility operates a back-up system to ensure that water quality will not adversely affect survival rates in the case of an equipment failure.
Aspiring indicators	• A system is in place that is expected to keep key water quality parameters within suitable tolerances for healthy eel survival (e.g. Ammonia, Suspended Solids, pH, Oxygen). • The facility has a minimum of a back-up generator and oxygen supply.
Discussion	The water used is drinking water. The pools are organised in two series in a closed circuit. The water is continuously recirculated and 10% of the water is renewed every day. An oxygenation system is installed in each pool and can be activated manually. There is always someone present on site. The water temperature, oxygen level, pH and salinity are monitored automatically by means of sensors. This is connected to a computer and there are alarms for oxygen and temperature. In the event of a power failure, a back-up unit takes over after 20 seconds. During this time, the pools are connected directly to a 12,000 m3 oxygen tank. In addition to computer monitoring, daily visual monitoring is carried out. The practices observed are good and recorded. The criterion is therefore met
Score	Responsible

Criterion 4.5: Handling and welfare	
Weighting: 1	
Responsible indicators	• Systems are in place and the facility is designed to keep handling to an absolute minimum. • Documented procedures are in place for handling, and handling, where necessary, is careful. • The infrastructure is designed to avoid injuries, and so that the use of nets is rarely necessary. When used, nets are small-mesh (1mm maximum). • Eels are moved without being allowed to dry out.
Aspiring indicators	• The facility may not be optimally designed, but systems are in place to avoid handling as much as possible within the constraints of the facility. • Handling, where necessary, is carefully planned and executed. • The infrastructure has been optimised as far as possible to avoid injuries. • Nets are small-mesh (1mm maximum). • Eels are moved without being allowed to dry out.
Discussion	The installation has been designed to handle the glass eels as little as possible. The transport truck can be parked near the ponds. For the purchase of the glass eels, the sieve is made of fine-mesh stainless steel. The glass eels are transported in fine-mesh sieves. The glass eels are collected by emptying the pond completely through a bottom valve. The glass eels then arrive on fine mesh screens and are transferred to the fish tankers. When the glass eels are placed in polystyrene boxes, they pass through a chute system to remove the water and arrive directly in the boxes. A plastic landing net is used to recover dead glass eels. There is a written protocol available. The criterion is therefore met.
Score	Responsible

Criterion 4.6: Transport	
Weighting: 1	
Responsible indicators	• There is a Transport Plan in place to minimise travel time – this meets the Transport requirements for vertebrates. • Packing is done in a way that minimises handling, time and stress. • Eels are kept cool and wet with an adequate supply of oxygen. • The operator holds the relevant transport authorisations.
Discussion	The fish are transported via a fish tanker with an oxygen supply. In some cases, glass eels are transported in polystyrene boxes with an ice bottle and oxygen placed inside. This is a standard method and works well for moderate distances. All batches have transport vouchers. The staff have accreditation for the transport of live animals. The criterion is therefore met.
Score	Responsible

Criterion 4.7: The required percentage of glass eels is being used for restocking	
Weighting: 2	
Responsible indicators	• The buyer can provide documented evidence that they have sold at least 60% for restocking the required target percentage of its glass eels from the last season for the primary purpose of conservation / escapement. • The eels for restocking are representative of the stock – slow growers are not selected.
Aspiring indicators	• The buyer can provide documented evidence that they have reserved or made available at least 60% of the required target percentage of its glass eels from the latest season available for the primary purpose of conservation / escapement, **OR** • The buyer can provide documented evidence that it has made available glass eels to the maximum level possible within the constraints of the implementation of the EMP in that country **OR** • The buyer can provide credible evidence that re-stocking will occur in the forthcoming season. • The eels for restocking are representative of the stock – slow growers are not selected.
Discussion	The percentage of glass eels bought and sold for restocking was around 50-55% over the previous 3 seasons. It is 59.9% for the 2020-2021 season. This rate is very close to 60% and the restocking market is often limiting for fish traders. At national level, the restocking quota is never 100% consumed, which reflects the difficulties of this market. Taking this into consideration, and in view of the increase in the rate of glass eels sold for restocking, this criterion is considered responsible.
Score	Responsible

Summary scores for Component 4	
Not met	2
Not applicable	0
Aspiring	4
Responsible	6
Total possible	12
% Responsibility (Responsible / Total possible)	**50%**

Component 5 – Eel farming

Criterion 5.0: Segregation of certified and uncertified eels

Weighting: 2	
Responsible indicators	• Certified and non-certified are kept separated, from point of collection through holding to sale and onward transport
Aspiring indicators	• Through mass-balance calculations (by number), the organisation can prove that no more than the same percentage of certified eels were output as were input, whilst taking mortality into consideration. A formula of 2,800 pieces per 1 kg of glass eels can be applied
Discussion	Certified and non-certified eels are mixed. However, no more certified eels were sold than purchased.
Score	Aspiring

Criterion 5.1: The total mortality rate during the culture process is low

Weighting: 2	
Responsible indicators	• The Percentage Mortality Rate of eels in culture is less than or equal to 10% on average in the current and previous year OR as an average of the previous five years • An accurate daily log is maintained of the number and causes of mortality
Aspiring indicators	• The Percentage Mortality Rate of eels in culture is between 10 and 15% on average in the current and previous years OR as an average of the previous five years. • An accurate daily log is maintained of the number of mortalities
Discussion	The percentage mortality rate of farmed eels has ranged from 2 to 15% for the past four years. On average over the last 4 years, the mortality rate is 8.9%. This rate was calculated by examining the number of eels entering the farm in relation to the number of eels exported and the number of eels remaining on the farm. This calculation is based on 2800 glass eels per kg. A daily record of mortalities is kept by weight but the size of dead eels is not available. Mortality by eel cohort or size should be recorded. This criterion is considered to be responsible for
Score	Responsible

Criterion 5.2: The fish meal/oil ingredients in the feed come from a responsible source	
Weighting: 1	
Responsible indicators	Fish meal/oil in the feed (including juvenile feeds) is certified by IFFO or MSC or shown in some other way to be from responsible or sustainable sources
Aspiring indicators	Fish meal/oil in the feed (including juvenile feeds) is not certified by IFFO or MSC or shown to be from responsible sources, but there are credible plans to move to such a supplier within 2 years
Discussion	The farm has two feed suppliers, Biomar and Klooster. Klooster supplies cod roe, which is used to feed the glass eels exclusively for the first 8 days of rearing, after which Biomar dry feed is gradually introduced. The supplier Biomar states that there is no specific ASC standard for eel feed. However, Biomar continually evaluates the purchasing criteria necessary to ensure and document that marine and non-marine raw materials meet the ASC requirements for social responsibility. Biomar uses raw materials that can be traced back to their source of origin and a significant part of which is IFFO and MSC certified. For the time being, information on the sustainability of the fish eggs used has not been collected. Pending this information, this criterion is classified as aspiring.
Score	Aspiring

Criterion 5.3: Feed is used as efficiently as possible	
Weighting: 1	
Responsible indicators	The average feed conversion ratios in the farm are as follows: glass eel to fingerlings: 1.1 or less fingerlings to 200g: 1.6 or less large eels: 2.0 or less
Aspiring indicators	The average feed conversion ratios in the farm are as follows: glass eel to fingerlings: 1.3 or less fingerlings to 200g: 1.8 or less large eels: 2.2 or less
Discussion	The average conversion rate on the farm is around 1.41 The eels are sold at around 5-15 grams a piece and are therefore eels weighing less than 200 grams. The responsible criterion is therefore met
Score	Responsible

Criterion 5.4: Water quality	
Weighting: 1	
Responsible indicators	• A system is in place that is expected to keep key water quality parameters within suitable tolerances for healthy eel survival (e.g. Ammonia, Suspended Solids, pH, Oxygen) • Water quality management procedures are in place including regular monitoring of relevant parameters which shows that water quality is always high and stable • Water quality monitoring is linked to an alarm-based system in the event of a sudden drop in water quality • The facility operates a back-up system to ensure that water quality will not adversely affect survival rates in the case of a power supply failure.
Aspiring indicators	• A system is in place that is expected to keep key water quality parameters within suitable tolerances (e.g. Ammonia, Suspended Solids, pH, Oxygen) • Water quality management procedures are in place and there is regular monitoring of relevant parameters which shows that water quality is always high and stable.
Discussion	Each series of 8 tanks is independent of the others and operates in a closed circuit. Everything is linked to the computer, which allows the temperature, acidity, oxygenation and conductivity parameters to be controlled automatically. In its circuit, the water first passes through an oxygen cone and then through an ultraviolet filter before entering the pools. Then, when the water exits the tanks, it passes through a drum filter to separate the excrement from the water. This water falls back into the pit before passing through a 4 metre high biofilter, which denitrifies the water and keeps the ammonia at a suitable level. The biofilter is connected to an aerator which removes CO2 from the water and maintains the desired temperature. The water is renewed at a rate of 3 to 5% per day. The pH is maintained by a dosing pump with the acidity requested by computer. The target pH is 6 for glass eels and when they have grown, the pH is lowered to 4-5. The water temperature is maintained at 26°C throughout production. The installation has 330 alarms and all parameters are monitored. In the event of a power failure, a back-up unit takes over after 20 seconds. During this time, the tanks are connected directly to a 12,000 m3 oxygen tank. In view of all these elements, this criterion is responsible.
Score	Responsible

Criterion 5.5: There are minimal ecological impacts from effluent discharge	
Weighting: 1	
Responsible indicators	• The system is closed-circuit and has no discharge OR • Effluent discharge is regularly tested by the farm AND • Effluent discharge complies with all local and national requirements AND • Has not been found to be non-compliant in the past 5 years.
Aspiring indicators	• Effluent discharge is regularly tested by the farm AND/OR • Has been found to be non-compliant on no more than 1 occasion in the past 5 years.

Discussion	The various lines are all in closed circuit and discharges are therefore limited. The company discharges 100 m3/day into the public sewerage system. The installation is compliant and periodically checked for discharges. Self-monitoring of discharges is carried out approximately every 15 days. The installation has not been judged to be non-compliant over the last 5 years. This criterion is therefore met.
Score	Responsible

Criterion 5.6: Grading, slaughter and transportation are carried out with respect to welfare	
Weighting: 1	
Responsible indicators	• Grading is completed in an efficient manner • Slaughter is completed by a method that provides an instant death or renders them insensible to pain, i.e. electric stunning or percussive stunning. • Procedures are in place to ensure transportation provides suitable conditions for fish welfare.
Aspiring indicators	• Other, previously acceptable methods of stunning before slaughter are used, e.g. chilling, but there are credible plans in place to invest in the latest methods within the next 2 years
Discussion	A grading is carried out approximately every 30 days. The eels are sorted with a special machine that separates the eels by size. The eels are pumped from the tanks to the grading machine, which sorts the sizes. Each sorted batch is then weighed before being returned to the tanks. The eels are never allowed to dry out during the process and are handled as little as possible. No culling is carried out at this site. This criterion is therefore met.
Score	Responsible

Criterion 5.7: The organisation provides eel for restocking	
Weighting: 2	
Responsible indicators	The organisation can provide documented evidence that 10% or more of the farm's annual eel production (by piece) **has** been provided for restocking for the purpose of conservation / escapement.
Aspiring indicators	The organisation can provide documented evidence that it makes 10 % of their annual eel production (by piece) available for restocking for the primary purpose of conservation / escapement AND/OR for new clients, the farm can demonstrate that they have bookings for re-stocking in the following year at more than 10% of the predicted annual eel production (by piece) for the purpose of conservation / escapement.
Discussion	It was decided not to consider this criterion for the following reasons: • The volume of eels that are present in this one farm is small • The Gurruchaga Marée group respects the 60% restocking quota for the glass eel fish trade

	• The farms of the Nijvis group that it supplies meet the 10% target • The organisation is very strict (and this has helped to influence the whole market) about the correct use of the restocking and consumption quotas
Score	Not applicable

Criterion 5.8: Eels for restocking are not graded out slow-growers	
Weighting: 2	
Responsible indicators	The size range and quantities in the eels for restocking reflect 100% that for the age group in the whole farm
Aspiring indicators	The size range and quantities indicate no more than a 25% supplement of those for restocking are from slower growing fish of the same age group.
Discussion	For the same reasons as for criterion 5.7, this criterion is not considered.
Score	Not applicable

Summary scores for Component 5	
Not met	0
Not applicable	4
Aspiring	3
Responsible	6
Total possible	9
% Responsibility (Responsible / Total possible)	**67%**