Construction of socio-economic indicators on commercial fishing fleets in mainland France:

part 2 - data collection

RBE/STH/LBH[1], RBE/EM[2]
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Résumé/ Abstract:

Under the European Regulation known as the DCF (Data Collection Framework) regulation, member states are required to collect and provide socio-economic data on fisheries as a basis for advice on fisheries management and for other purposes.

In metropolitan (mainland) France, data production is the responsibility of the *Service Statistiques et de la Prospective* (SSP; Statistics and Prospective Service) within the Ministry for Agriculture and Food. For data collection, the SSP relies on its two partners: IFREMER (*Institut Français de Recherche pour l'Exploitation de la Mer*; French Research Institute for Exploitation of the Sea), which conducts field surveys, and *Laboratoire d'Économie et de Management de Nantes-Atlantique* (LEMNA; Nantes-Atlantique Economics and Management Laboratory), which collects accounting data from management centres. This document presents Stage 2 of the IFREMER data collection, which follows the development of the national sampling plan and the allocation of the IFREMER sub-sample (Stage 1). This document makes a detailed presentation of the second stage, which is conducted before the final validation of the data (Stage 3) and construction of socio-economic indicators.

Mots-clés/ Keywords :

Commercial fisheries, economic surveys, socio-economic indicators, sampling plan, collection, validation, qualification, methodology

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1 Introduction

Under European Regulation (EU) 2017/1004 known as the DCF (Data Collection Framework) regulation[1], member states are required to collect and provide socio-economic data on fisheries, as specified in the Commission Delegated Decision (EU) 2021/1167 of 27 April 2021[2], to provide a source of advice for fisheries management and other purposes.

In metropolitan (mainland) France, data production is the responsibility of the *Service Statistiques et de la Prospective* (SSP; Statistics and Prospective Service) within the Ministry for Agriculture and Food. For data collection, the SSP relies on its two partners: IFREMER (*Institut Français de Recherche pour l'Exploitation de la Mer*; French Research Institute for Exploitation of the Sea), which conducts field surveys, and *Laboratoire d'Économie et de Management de Nantes-Atlantique* (LEMNA; Nantes-Atlantique Economics and Management Laboratory), which collects accounting data from management centres.

To produce these data, fishing companies take part in annual surveys; the purpose being to calculate economic indicators per fleet segment, and, more generally, to evaluate the economic performance and development of different sub-fleets. The main topics covered in these surveys are income, costs, physical capital, physical investments and the financial situation, and jobs. These surveys have been endorsed by the *Conseil National de l'Information Statistique* (CNIS; National Council for Statistics) since 2012[3,4] This accreditation is a guarantee of rigorous methodology and full compliance with data and statistical confidentiality requirements.

This document presents Stage 2 of the IFREMER data collection, carried out by the network of observers of the Fisheries Information System (SIH; *Système d'Informations Halieutiques*) of IFREMER, which is done after the establishment of the national sampling plan and the allocation of the IFREMER sub-sample (Stage 1). It, therefore, presents the second stage of establishing socio-economic indicators and should be considered in conjunction with the following documents:

Merzéréaud M., Daurès F., Guyader O., Le Grand C., Leonardi S., Macher C., Spagnol C. 2021. Construction of socio-economic indicators on commercial fishing fleets in mainland France: part 1 - sampling plan

Le Grand C., Daurès F., Guyader O., Macher C., Leonardi S., Merzéréaud M. 2021. Construction of socio-economic indicators on commercial fishing fleets in mainland France: part 3 - validation method

[1]Regulation (EU) 2017/1004 of the European Parliament and Council of 17 May 2017: https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32017R1004&from=EN

[2]See Table 7 of Commission Delegated Decision (EU) 2021/1167 of 27 April 2021: https://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32021D1167&rid=2

[3]Economic data production in the marine fisheries sector (Survey for) (2021A704AG) - https://www.cnis.fr/enquetes/enquete-pour-la-production-de-donnees-economiques-dans-le-secteur-des-peches-maritimes-2021a704ag/

[4]Gitton François-Pierre, Minne Marie-Dominique, Baranger Laurent, Souffez Arnaud, Guyader Olivier, Le Grand Christelle, Merzereaud Mathieu (2020). Enquête pour la production de données économiques dans le secteur des pêches maritimes 2021-2025. Dossier de présentation au Comité du label de la statistique publique. Session of October 21 2020. 288p. https://archimer.ifremer.fr/doc/00694/80622/

2 Data collection

Following the development of the sampling plan and the allocation of the national sample between IFREMER and LEMNA, the collection of socio-economic data is initiated (see Figure 1).

At IFREMER, these data are collected directly in the field by economic surveys conducted through face-to-face interviews with fishing vessel owners. This is done between March and June-July of each year by the network of observers of the *Système d'Informations Halieutiques* (SIH; Fisheries Information System) of IFREMER and its service providers, present along the French metropolitan coast (Figure 2 shows the timetable of actions implemented). These surveys are the result of activity surveys that allow the comprehensive monitoring of all vessels registered in the Community Fishing Fleet Register (CFR)[5]. The collection of activity data is done every year from January to March and makes it possible to reconstruct the monthly activity of vessels in terms of number of days at sea, number of crew on board, fishing metiers practiced, and fishing areas frequented.

[5] https://sih.ifremer.fr/Activite-socio-economie/Activite-des-navires

Figure 1. Process for constructing DCF variables on a national scale (parts in violet indicate the involvement of IFREMER)

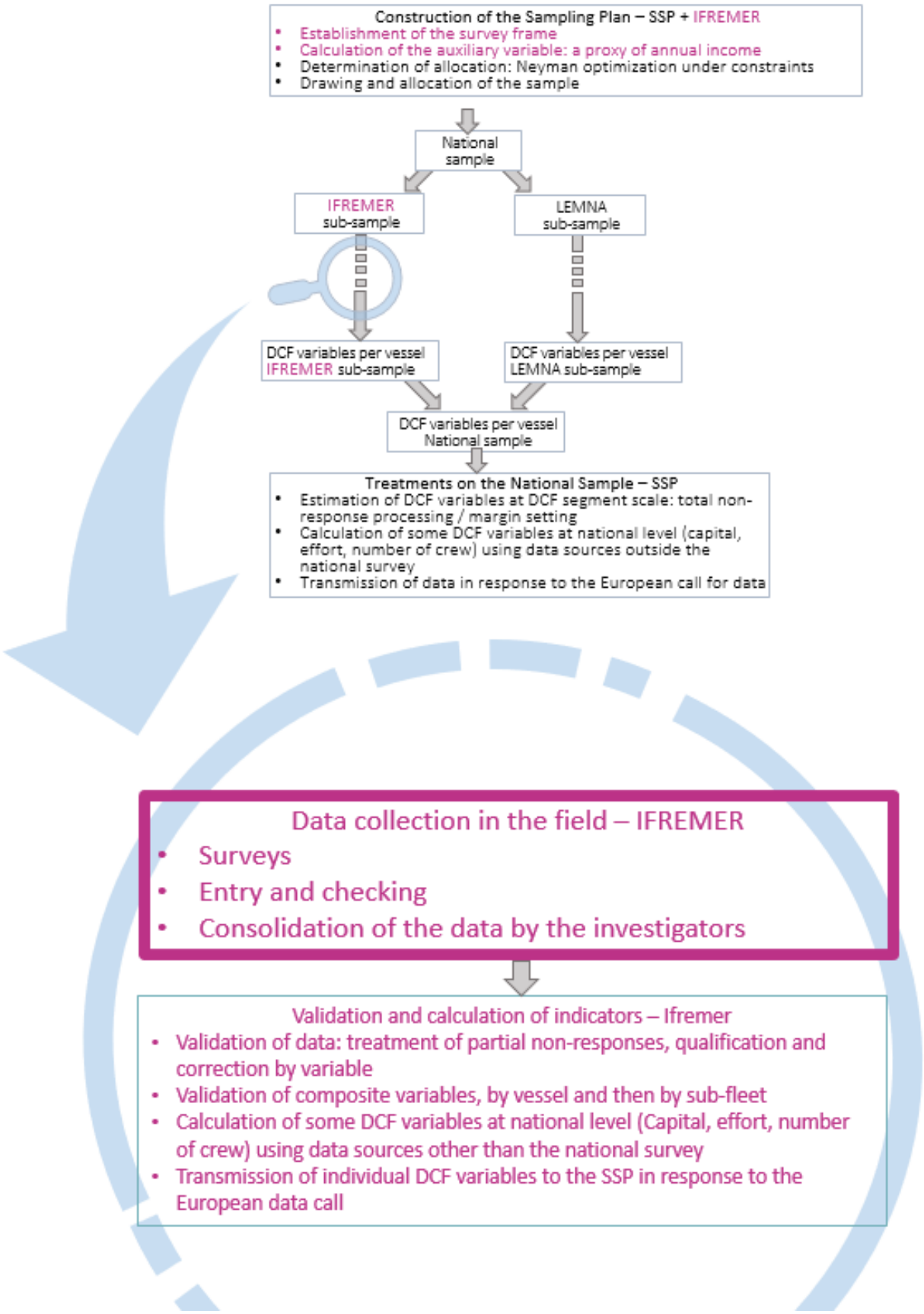
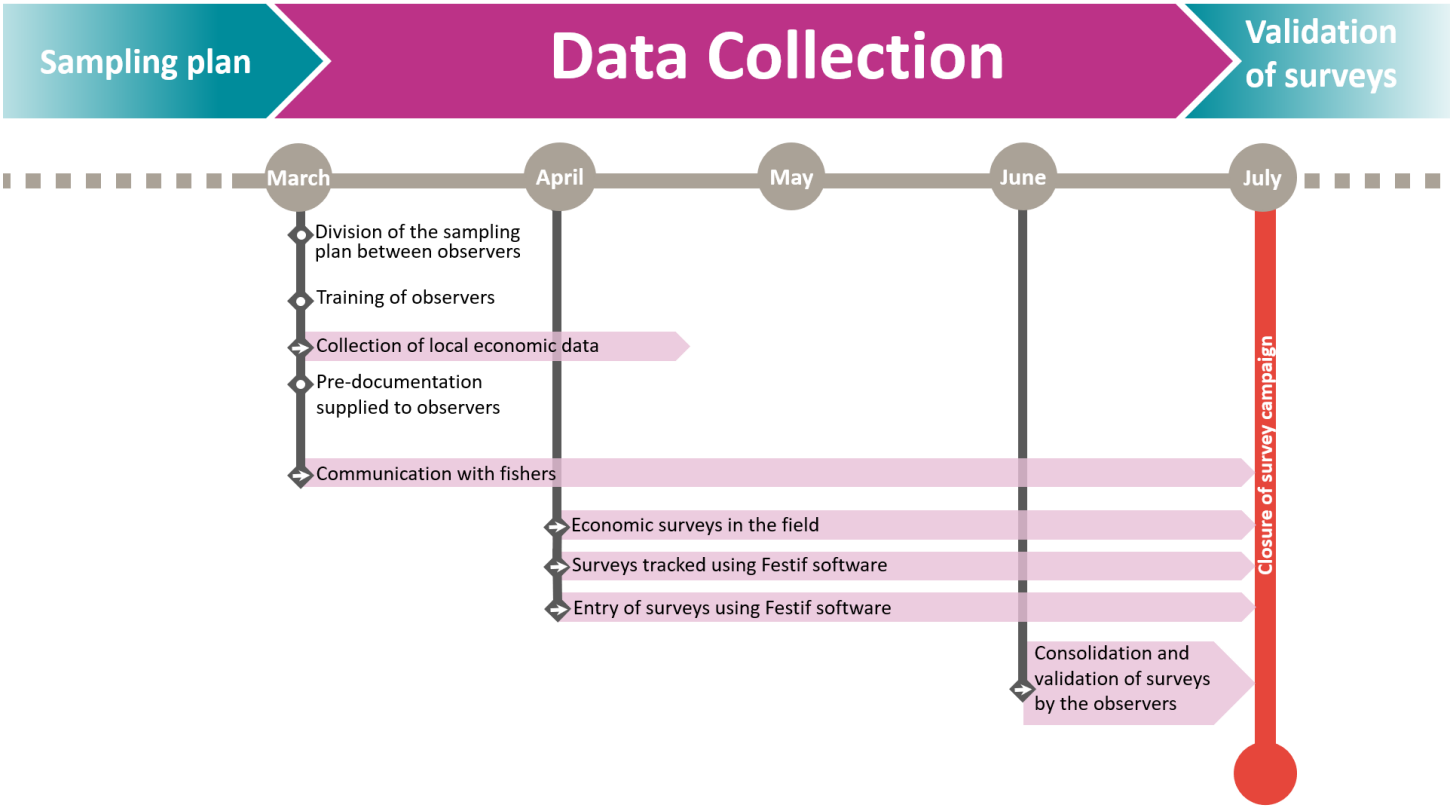


Figure 2. Chronology of actions implemented each year for the socio-economic data collection step



2.1 Prerequisites for the socio-economic survey

2.1.1 Division and allocation of the sampling plan among the observers

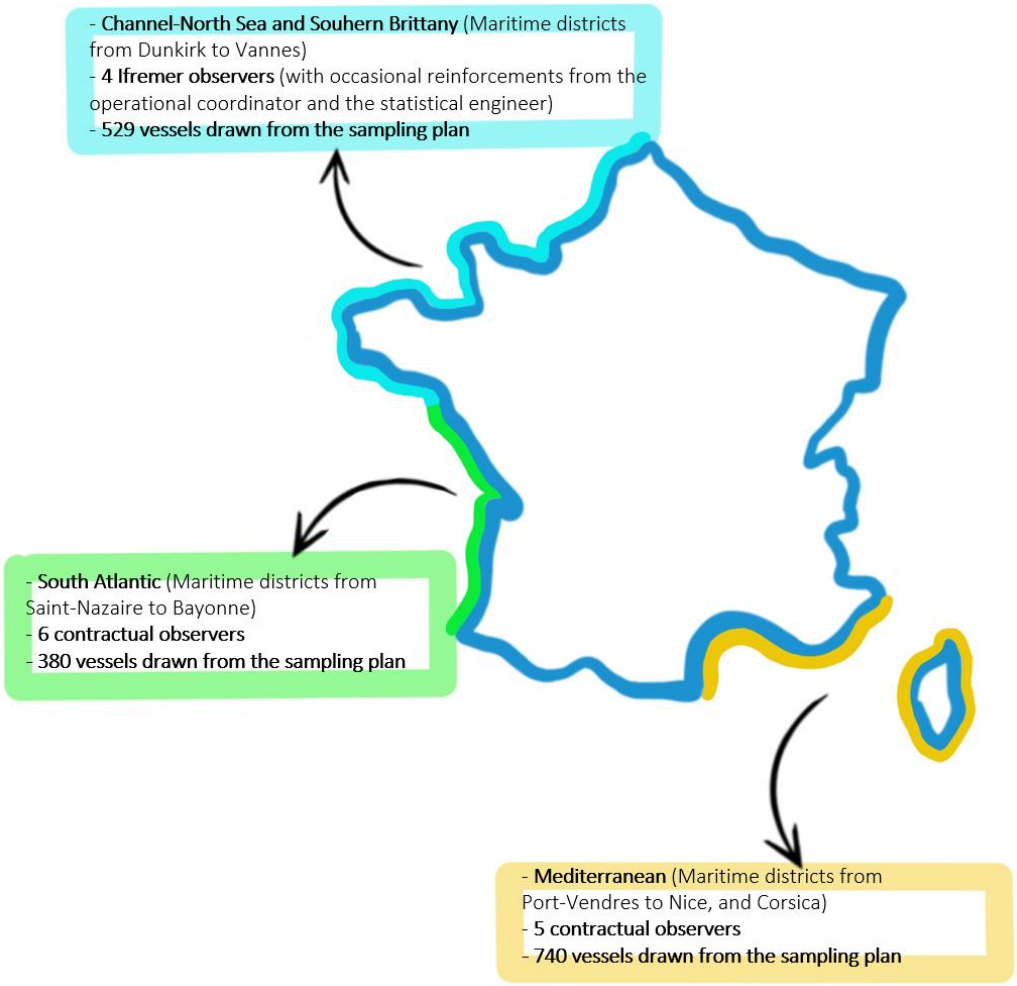
Observers are spread along the coast, each with a geographical area to be covered, a number of vessels to assess (Appendix 1 provides an extract from the sampling plan given to observers).

As a general rule, a survey (including canvassing, travelling, interviewing fishers and data entry) is considered to be a day's work for an observer. Each observer will be responsible for contacting all the fishing vessel owners in the part of the sampling plan allocated to them and for conducting as many economic surveys as possible.

The rate of completion of the sampling plan reaches between 30% and 35% each year (the sample size takes into account the historical percentages of non-responses to economic surveys and is adjusted to reach a coefficient of variation determined each year[6]).

[6] Merzereaud Mathieu, Daures Fabienne, Guyader Olivier, Le Grand Christelle, Leonardi Sophie, Macher Claire, Spagnol Charlene (2021). Construction of socio-economic indicators on commercial fishing fleets in mainland France: part 1 – sampling plan, Report IFREMER-RBE-EM-SIH. https://doi.org/10.13155/84382

Figure 3. Distribution of the sampling plan among observers, by coastline, during the 2021 collection campaign



2.1.2 Training

Each year, before the start of the data collection campaign, training is provided for both novice and experienced observers. During this training, the operational coordinator presents:

- how the collection campaign is planned to run,
- the survey questionnaire and the explanations associated with each question,
- documents and tools available to the observers on the SIH[7] website or supplied directly when confidential data is concerned.

In addition to the training, novice observers are accompanied by an experienced observer or by the operational coordinator for their first survey in the field.

2.1.3 Local economic data

At the beginning of the collection campaign, observers are asked to collect local economic data, i.e. information by sea area or by relevant geographical area (see Appendix 2). The following data are collected:

[7] https://sih.ifremer.fr

- Landing taxes
- Fuel prices
- Intermediate consumption prices: average ice price, average engine oil price, average hydraulic oil price
- Average prices of fishing gear and rigs
- Prices of fishing licences

They are then entered into an Excel file and sent to the operational coordinator. These first data collected allow observers to start by familiarizing themselves with the field and structures related to fishing, such as auctions, maritime cooperatives and fisheries committees. These data will then be used during the surveys, in order to confirm the information given by the fishing vessel owners surveyed.

2.1.4 Provision of pre-documentation

At the beginning of the collection campaign, the economic pre-documentation sheets for the vessels in the sampling plan are generated and then given, under restricted access, to the observers.

These sheets contain the following information:

- Information on the identification of the vessel and its activities based on administrative data
- Activity data from activity journals
- Data from the 'Sacrois' application[8]
- Sales data collected by the inter-auction network
- Data from surveys of previous years and not protected by statistical confidentiality, i.e. non-confidential:
    - Identification of the survey
    - Information about the vessel owner
    - Family involvement in the fishing business
    - Vessel characteristics
    - Proportions of income that are from auction sales and cash sales and proportion of different species.
    - Crew remuneration method
    - Participation in surveys of previous years and, otherwise, the reasons for refusal
    - Aggregated economic indicators of the sub-fleet to which the vessel belongs, respecting confidentiality

The observer thus has all available information on the vessels in the sampling plan assigned to them, thus helping them to get an idea of the functioning of these vessels' ownership, management and activities. These pre-documentation sheets also help to validate the data collected during interviews with vessel owners.

[8]Sacrois is an operational application for alignement, verification and consistency checks of different data flows. Sacrois produces validated series of production and effort data. (2022) **Sacrois. Un algorithme de croisement de données**. https://archimer.ifremer.fr/doc/00774/88631/

2.1.5 Communication with the fishers

Before the start of the data collection campaign, a letter of notice is sent to the vessel owners drawn from the sampling plan (see Appendix 3). The purpose of this letter is to warn them that an observer from IFREMER or one of its service providers will contact them to propose that they participate in the economic survey. This letter also lets them know in advance about the purpose of the data collection and informs them of the legal notices concerning the confidentiality of the data collected and the status of the survey, that is to say certified to be of general interest and statistical quality by the CNIS[9].

In the field, observers have the opportunity to distribute communication leaflets[10] to the fishers (see Appendix 4).

Information meetings may be organised on the initiative of the service providers, to which fishers and their representatives are invited.

2.2 Socio-economic survey

2.2.1 General principles

The survey only concerns the vessel that has been drawn and the reference year N-1. The income and cost variables relate only to professional fishing activities at sea (on board or fishing on foot). Vessels cannot be surveyed in the event of a change of ownership during reference year N-1, in the case of inactivity, or if there is an exceptional change in activity (e.g. if the vessel has sunk).

2.2.2 Questionnaire and guide

The observer's mission is to contact all the fishing vessel owners in the part of the sampling plan that has been assigned to them and to carry out as many socio-economic surveys as possible. The survey is conducted face-to-face with the fishing vessel owner or any person able to represent them. Based on the questionnaire of the socio-economic survey[11], the observer collects data of interest for the calculation of the economic indicators required by the DCF[12], as well as data useful for research.

The questionnaire of about twenty pages is divided into seven parts, each on a different theme:

- Information about the survey respondent and their entourage
    - Contact details of the person(s) surveyed, other vessels operated, association with other vessels, family involvement in the fishing enterprise.
- The vessel

[9]Economic data production in the marine fisheries sector (Survey for) (2021A704AG) - https://www.cnis.fr/enquetes/enquete-pour-la-production-de-donnees-economiques-dans-le-secteur-des-peches-maritimes-2021a704ag/

[10] IFREMER (2020). L'économie de la pêche - Participez à l'enquête ! https://archimer.ifremer.fr/doc/00349/46054/

[11] IFREMER, AMURE, SIH (2021). Enquête d'intérêt général et de qualité statistique. Enquête sur la production des données économiques dans le secteur des pêches maritimes. Année de référence 2020. Période de collecte : mars à juin 2021. Questionnaire Économique - N°2021-01 https://archimer.ifremer.fr/doc/00732/84377/

[12]Table 7 of Commission Delegated Decision (EU) 2021/1167 of 27 April 2021. https://eur-lex.europa.eu/legal-content/FR/TXT/HTML/?uri=CELEX:32021D1167&rid=2

    - Year of acquisition, purchase price, sources of finance, outstanding loans, insurance, subsidies.
- Journal and activity
    - Number of days at sea per year, number of engine hours per year, number of crew on board, duration of a fishing trip, metiers practiced, licences.
- Fishing gears and rigs
    - Purchases and renovations of fishing gears and rigs.
- Revenues and costs
    - Income, marketing channels used, contribution to a bad weather fund, cost of landing taxes, intermediate consumption (fuel, oils, ice, bait, food), membership of a producer organisation, membership of a management centre, subscription to the fisheries committee, other professional activities, pensions, maintenance and repair of the vessel, change of engine and other fitting out expenses.
- Crew and method of remuneration
    - Number of crew on board, remuneration system, total annual crew cost, personnel charges, salaries.
- Observer's assessment
    - Respondent's welcome, survey reliability, data sources (accounting or other data) and interviewer feedback.

In particular, the first two pages of the questionnaire, which are to be given to the respondent, provide details of the public interest and statistical quality certification, details of statistical confidentiality, and the respondent's rights with regard to their data (right to access, opposition, rectification, deletion or restriction of data processing).

The data collected through this questionnaire are, subsequently, used to calculate the economic indicators required by the DCF, individually for each vessel and on an annual scale (see Appendix 5).

At the same time, a guide to the socio-economic questionnaire [13] is made available to observers (see excerpts in Appendix 6). This guide outlines what is expected for each question. It also provides guidance for the completion of the questionnaire in the following specific cases:

- Case 1. Other activity than fishing at sea on board the vessel: fishing on foot.
- Case 2. Other activity than fishing at sea: shellfish farming:
    - Case 2-a. Practice of sea fishing and shellfish farming with the same vessel.
    - Case 2-b. Practice of sea fishing and shellfish farming with two different vessels.
- Case 3. The fishing vessel is used for other activities at sea (e.g. fishing on foot, renting out, towing, waste collection, etc.).
- Case 4. The main activity is sea fishing and secondary activity is sale of seafood products other than those landed by the surveyed vessel. This case concerns fishermen who buy seafood to supply their stalls in addition to what they have caught/ collected themselves.

[13]This guide can be provided on request: Spagnol Charlene, Leonardi Sophie, Daures Fabienne, Guyader Olivier, Macher Claire, Le Grand Christelle, Merzereaud Mathieu (2021). Guide du questionnaire socio-économique. Aide au remplissage du questionnaire « Enquête sur la production des données économiques dans le secteur des pêches maritimes ». [Guide to the socio-economic questionnaire. Help with the completion of the questionnaire 'Survey on the Production of Economic Data in the Marine Fisheries Sector']

- Case 5. The owner of the vessel operates/owns several fishing vessels over the year.
- Case 6. The owner of the vessel is a crew member on another fishing vessel. This case concerns vessel owners who work on board their own vessels as fishing skippers but who are also taken on board other vessels (not owned by them) as sailors.

For vessels whose costs and/or revenues are the product of more than one vessel or activity, a method of breaking down these amounts is explained in the guide.

2.2.3 Entry and tracking software

Tracking the completion of the sampling plan and the entry of surveys is done with the 'Festif' application, an IFREMER-specific software program developed under WINDEV. Each year, an updated version of this software is created to take into account any changes to the questionnaire or collection methodology; it is then provided to the observers.

As soon as the collection campaign begins, observers start to regularly report the progress made on the part of the sampling plan they have been allocated. To do this, they use the vessel tracking feature of Festif (interface shown in Appendix 7). The observer indicates the situation for the vessel from a given list: contacted, appointment fixed, investigated, refusal (with the option to indicate the reason for the refusal), unreachable or uninvestigable. The software then allows this tracking score to be exported to a file. Observers are asked to send a copy of this file to the operational coordinator at IFREMER every 15 days via a secure platform that only observers can access, using their specific IDs. The operational coordinator then retrieves these files from the secure server and can follow the progress of each observer. At the end of the collection campaign, all vessels present in the sampling plan must have been recorded in these tracking files.

For the entry of the completed surveys, the Festif entry function consists of an interface that reproduces the questionnaire (interface shown in Appendix 8). After selecting the desired vessel, the observer copies the data they noted in the paper version of the questionnaire into the on-screen version. As with the tracking, the software allows one to export entries to a file, which observers then regularly deposit on a second secure platform which only observers can access, using their specific IDs. The operational coordinator then retrieves these files from a secure server.

In order to avoid input errors, Festif performs automatic checks on certain questions during input. Thus, when certain data appear to be outliers (very high or low amounts for income in relation to the number of days at sea or the number of crew on board) or are equal to zero, the software puts up a warning prompting the observer to check their entry.

2.3 After the socio-economic survey

2.3.1 Consolidation and validation of surveys by the observers

About one month before the end of the collection campaign, the data entered by the observers goes through a first validation step. The IFREMER operational coordinator implements this validation regularly or at the request of the observer, using an R script that generates one Excel file per observer, containing the data entered into Festif. This first analysis highlights inconsistencies, which can then be corrected or explained by the observers.

This first validation step consists of comparing the data entered into Festif with other data sources:

- Data on the activity of the vessel compared with the activity journals (number of days at sea, number of crew on board, metiers practiced).
    - ⇨ In the event of deviations from these data, the observer must correct one of these two data sources.
- Income compared with the data contained in the Sacrois application and the sales figures of the inter-auction network.
    - ⇨ In case of deviations from these data, the observer can correct their entry in Festif or explain the origin of this discrepancy. The observer's field expertise is an important source of information for the improvement of the Sacrois[14] algorithms by IFREMER's statisticians.

Then, the entered data is analysed. The various amounts filled in throughout the survey are compared with the amount of income recorded in this same survey. When an amount represents a very low or very high percentage of the income, this data is spotlighted to encourage the observer to verify that it is not an input error. When it is not an input error, the observer explains the unusually high or unusually low figures.

Some data entered may be inconsistent, such as:

- An insurance premium of more than 0€ and an insurance value of 0€
- Landing taxes equal to 0€ and an auction percentage of more than 0%
- A membership of a management centre but a subscription fee equal to 0€

This type of inconsistent data is then highlighted, and the observer is invited to correct their entries or to justify them.

Missing data are also highlighted for verification and/or justification. At the end of the data collection campaign, all surveys must pass this first step of validation. Otherwise, the unvalidated survey is withdrawn.

2.3.2 Closure of the survey campaign

The socio-economic data collection campaign usually ends at the end of June, or in July if a later deadline is granted.

At the end of the collection campaign, all vessels must have been approached by the observers and scored in the tracking files. The number of economic surveys entered into Festif must correspond to the number of vessels 'surveyed' in the tracking files. The socio-economic surveys must have passed the first validation step. Once the economic surveys are finished, observers have a contractual obligation to delete the survey data from their computers.

The paper questionnaires used in year N are recovered by the IFREMER operational coordinator of and filed in a drawer in the statistician's office, which fulfils the security requirements of the *Centre d'Accès Sécurisé aux Données* (CASD[15], Secure Data Access Centre), throughout the

[14]Sacrois is an operational application for alignment, verification and consistency checks of different data flows. Sacrois produces validated series of production and effort data. (2022) **Sacrois. Un algorithme de croisement de données**. https://archimer.ifremer.fr/doc/00774/88631/

[15]The CASD is a public interest grouping whose mission is to ensure that data applicants store, make available and use their data in accordance with the terms of the agreements and contracts concluded with them and with requirements to protect the confidentiality of this data - https://www.casd.eu/

validation steps and until the start of the next collection period. In N+1, the paper questionnaires are archived in an archive box and kept in the statistician's office for an additional year. Finally, in N+2, these boxes are archived confidentially, following the protocol set up by IFREMER[16].

Following the end of the survey, the collected data are analysed by IFREMER statisticians, to go through further validation steps[17]. Once these validation steps have been passed, IFREMER sends the data for each vessel to the SSP via a dedicated ftp server to which the SSP is the only service to have access. The SSP retrieves this data and stores it on a dedicated computer server, then makes the individual data available to researchers via the CASD. The data that are disseminated are, moreover, only aggregated data that comply with the limitations of statistical confidentiality. This rule is followed both for national dissemination and for the transmission of economic indicators to the European Commission.

[16]Carn Nolwenn, Chatry Gilles (2010). IFREMER Archives. Reference manual. R.INT.DOP/API/2010-158.
[17]Le Grand C., Daurès F., Guyader O., Macher C., Leonardi S., Merzereaud M. 2021. Construction of socio-economic indicators on commercial fishing fleets in mainland France: part 3 - validation method

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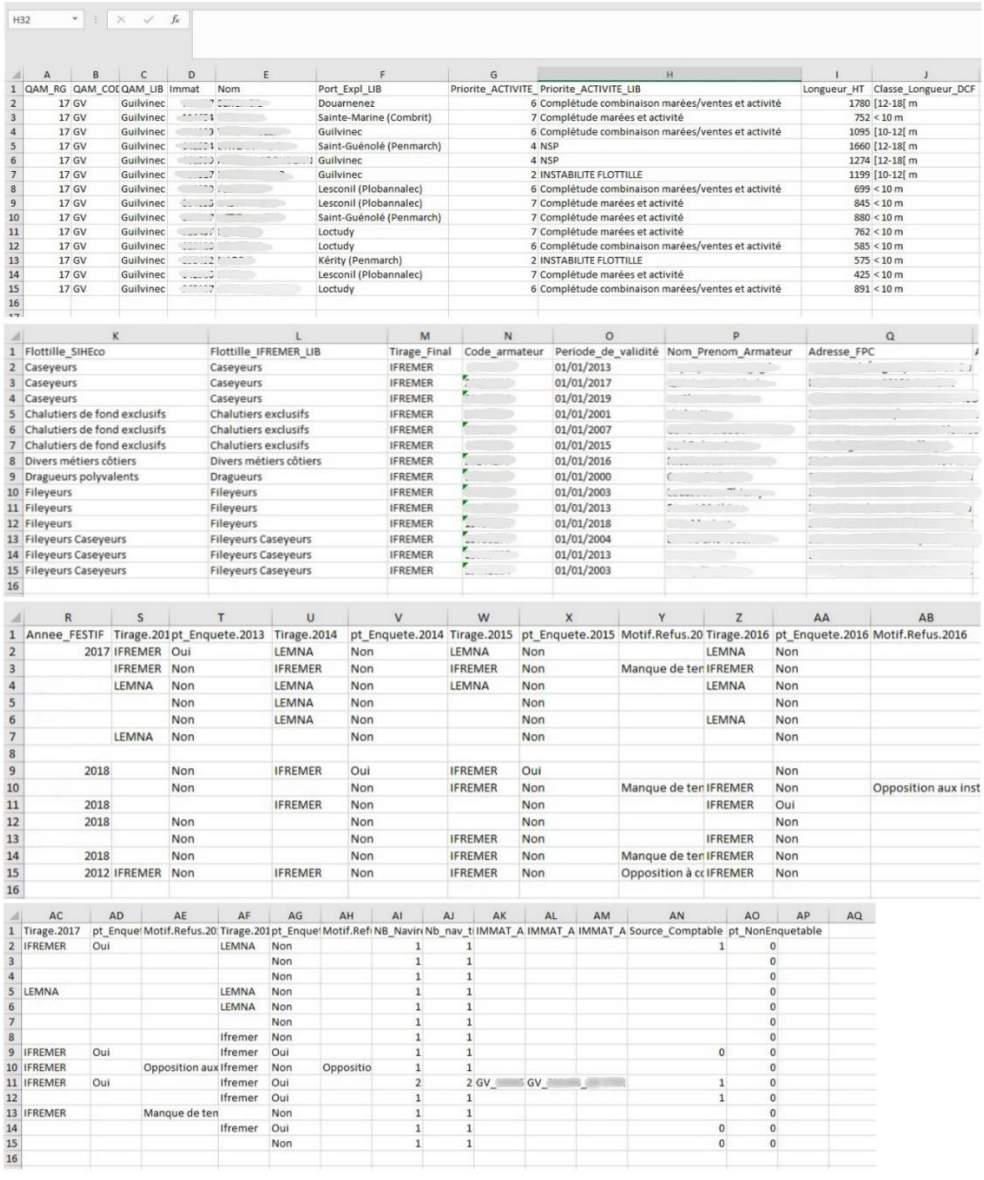
Gitton François-Pierre, Minne Marie-Dominique, Baranger Laurent, Souffez Arnaud, Guyader Olivier, Le Grand Christelle, Merzereaud Mathieu (2020). Enquête pour la production de données économiques dans le secteur des pêches maritimes 2021-2025. Dossier de présentation au Comité du label de la statistique publique. Session of October 21 2020. 288p. https://archimer.ifremer.fr/doc/00694/80622/

4 Appendices

4.1 Appendix 1. Excerpt from the sampling plan supplied to the observers

Figure 4. Excerpt of the sampling plan for the Guilvinec maritime district, in Excel format, supplied to the observer (QAM_RG = geographical rank of the district, QAM_COD = registration district code, QAM_LIB = name of the registration district, Immat = registration, Nom = name of the vessel, Port_Expl_LIB = name of the operating port, Priorite_ACTIVITE_COD = priority level for activity surveys, Priorite_ACTIVITE_LIB = priority name for activity surveys, Longueur_HT = length of the vessel, Classe_Longueur_DCF = DCF length class of the vessel, Flottille_SIHEco = name of the SIHEco sub-fleet, Flottille_IFREMER_LIB = sub-fleet name, Tirage_Final = investigating body (LEMNA, IFREMER), Code_armateur = registration code of the vessel owner, Periode_de_validité = period of validity of the vessel * vessel owner pair, Nom_Prenom_Armateur = family name and first name of the vessel owner, Adresse_FPC = address of the vessel owner, Annee_FESTIF = year of the last economic survey (IFREMER) since 2011, Nom_Prenom_FESTIF = family name and first name of the vessel owner, Adresse_FESTIF = address of the vessel owner, Tel_FESTIF = telephone number of the vessel owner, Nom_Prenom_Autre_FESTIF = family name and first name of the other person surveyed for this vessel, Tel_Autre_FESTIF = telephone number of the other person surveyed for this vessel, Tirage.201X = Was the vessel drawn in 201X?, pt_Enquete.201X = Was the vessel surveyed in 201X?, Motif.Refus.201X = reason for refusal in 201X, NB_Navires_par_Armateur = number of vessels owned by the vessel owner, Nb_nav_tirés = number of vessels owned by the vessel owner and drawn in the reference year, IMMAT_Autre_Nav_Tirés_X = registration district and name of the 10th vessel drawn, Source_Comptable = equals 1 if the last survey was carried out using an accounting balance sheet, pt_NonEnquetable = equals 1 if the vessel is inactive according to its activity journal).



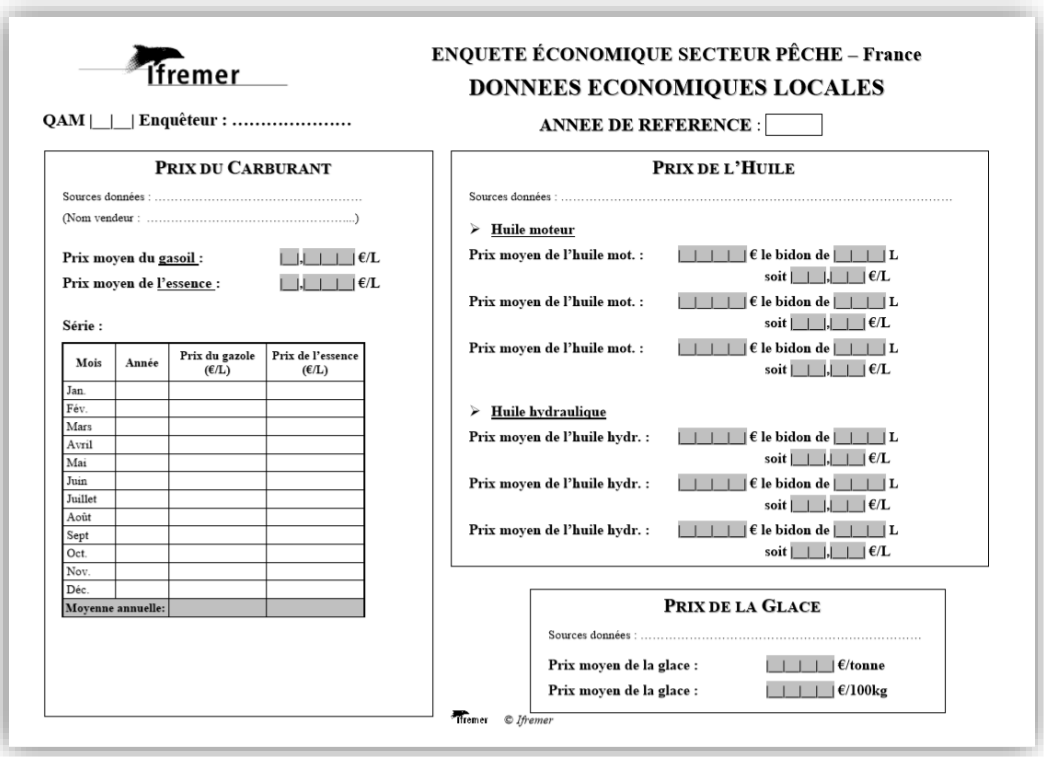
QAM_RG	QAM_COD	QAM_LIB	Immat	Nom	Port_Expl_LIB	Priorite_ACTIVITE_COD	Priorite_ACTIVITE_LIB	Longueur_HT	Classe_Longueur_DCF
17	GV	Guilvinec			Douarnenez	6	Complétude combinaison marées/ventes et activité	1780	[12-18[m
17	GV	Guilvinec			Sainte-Marine (Combrit)	7	Complétude marées et activité	752	< 10 m
17	GV	Guilvinec			Guilvinec	6	Complétude combinaison marées/ventes et activité	1095	[10-12[m
17	GV	Guilvinec			Saint-Guénolé (Penmarch)	4	NSP	1660	[12-18[m
17	GV	Guilvinec			Guilvinec	4	NSP	1274	[12-18[m
17	GV	Guilvinec			Guilvinec	2	INSTABILITE FLOTTILLE	1199	[10-12[m
17	GV	Guilvinec			Lesconil (Plobannalec)	6	Complétude combinaison marées/ventes et activité	699	< 10 m
17	GV	Guilvinec			Lesconil (Plobannalec)	7	Complétude marées et activité	845	< 10 m
17	GV	Guilvinec			Saint-Guénolé (Penmarch)	7	Complétude marées et activité	880	< 10 m
17	GV	Guilvinec			Loctudy	7	Complétude marées et activité	762	< 10 m
17	GV	Guilvinec			Loctudy	6	Complétude combinaison marées/ventes et activité	585	< 10 m
17	GV	Guilvinec			Kérity (Penmarch)	2	INSTABILITE FLOTTILLE	575	< 10 m
17	GV	Guilvinec			Lesconil (Plobannalec)	7	Complétude marées et activité	425	< 10 m
17	GV	Guilvinec			Loctudy	6	Complétude combinaison marées/ventes et activité	891	< 10 m

Flottille_SIHEco	Flottille_IFREMER_LIB	Tirage_Final	Code_armateur	Periode_de_validité	Nom_Prenom_Armateur	Adresse_FPC
Caseyeurs	Caseyeurs	IFREMER		01/01/2013		
Caseyeurs	Caseyeurs	IFREMER		01/01/2017		
Caseyeurs	Caseyeurs	IFREMER		01/01/2019		
Chalutiers de fond exclusifs	Chalutiers exclusifs	IFREMER		01/01/2001		
Chalutiers de fond exclusifs	Chalutiers exclusifs	IFREMER		01/01/2007		
Chalutiers de fond exclusifs	Chalutiers exclusifs	IFREMER		01/01/2015		
Divers métiers côtiers	Divers métiers côtiers	IFREMER		01/01/2016		
Dragueurs polyvalents	Dragueurs	IFREMER		01/01/2000		
Fileyeurs	Fileyeurs	IFREMER		01/01/2003		
Fileyeurs	Fileyeurs	IFREMER		01/01/2013		
Fileyeurs	Fileyeurs	IFREMER		01/01/2018		
Fileyeurs Caseyeurs	Fileyeurs Caseyeurs	IFREMER		01/01/2004		
Fileyeurs Caseyeurs	Fileyeurs Caseyeurs	IFREMER		01/01/2013		
Fileyeurs Caseyeurs	Fileyeurs Caseyeurs	IFREMER		01/01/2003		

Annee_FESTIF	Tirage.201	pt_Enquete.2013	Tirage.2014	pt_Enquete.2014	Tirage.2015	pt_Enquete.2015	Motif.Refus.20	Tirage.2016	pt_Enquete.2016	Motif.Refus.2016
2017	IFREMER	Oui	LEMNA	Non	LEMNA	Non		LEMNA	Non	
	IFREMER	Non	IFREMER	Non	IFREMER	Non	Manque de ten	IFREMER	Non	
	LEMNA	Non	LEMNA	Non	LEMNA	Non		LEMNA	Non	
		Non	LEMNA	Non		Non			Non	
		Non	LEMNA	Non		Non		LEMNA	Non	
	LEMNA	Non		Non		Non			Non	
2018		Non	IFREMER	Oui	IFREMER	Oui			Non	
		Non		Non	IFREMER	Non	Manque de ten	IFREMER	Non	Opposition aux inst
2018			IFREMER	Non		Non		IFREMER	Oui	
2018		Non		Non		Non			Non	
		Non		Non	IFREMER	Non		IFREMER	Non	
2018		Non		Non	IFREMER	Non	Manque de ten	IFREMER	Non	
2012	IFREMER	Non	IFREMER	Non	IFREMER	Non	Opposition à c	IFREMER	Non	

Tirage.2017	pt_Enquet	Motif.Refus.20	Tirage.201	pt_Enquet	Motif.Refi	NB_Navir	Nb_nav_ti	IMMAT_A	IMMAT_A	IMMAT_A	Source_Comptable	pt_NonEnquetable	
IFREMER	Oui		LEMNA	Non		1	1				1	0	
				Non		1	1					0	
				Non		1	1					0	
LEMNA			LEMNA	Non		1	1					0	
			LEMNA	Non		1	1					0	
				Non		1	1					0	
			Ifremer	Non		1	1					0	
IFREMER	Oui		Ifremer	Oui		1	1				0	0	
IFREMER		Opposition aux	Ifremer	Non	Oppositio	1	1					0	
IFREMER	Oui		Ifremer	Oui		2	2	GV	GV		1	0	
			Ifremer	Oui		1	1				1	0	
IFREMER		Manque de ten		Non		1	1					0	
			Ifremer	Oui		1	1				0	0	
				Non		1	1				0	0	

4.2 Appendix 2. Local economic data form



Ifremer

ENQUETE ÉCONOMIQUE SECTEUR PÊCHE – France

DONNEES ECONOMIQUES LOCALES

QAM |__|__| Enquêteur : .....

ANNEE DE REFERENCE : [ ]

PRIX DU CARBURANT

Sources données : .....

(Nom vendeur : .....)

Prix moyen du gasoil : [_].[_][_][_] €/L

Prix moyen de l'essence : [_].[_][_][_] €/L

Série :

Mois	Année	Prix du gazole (€/L)	Prix de l'essence (€/L)
Jan.			
Fév.			
Mars			
Avril			
Mai			
Juin			
Juillet			
Août			
Sept			
Oct.			
Nov.			
Déc.			
Moyenne annuelle:			

PRIX DE L'HUILE

Sources données : .....

➢ **Huile moteur**

Prix moyen de l'huile mot. : [_][_][_][_] € le bidon de [_][_][_] L
soit [_][_],[_][_] €/L

Prix moyen de l'huile mot. : [_][_][_][_] € le bidon de [_][_][_] L
soit [_][_],[_][_] €/L

Prix moyen de l'huile mot. : [_][_][_][_] € le bidon de [_][_][_] L
soit [_][_],[_][_] €/L

➢ **Huile hydraulique**

Prix moyen de l'huile hydr. : [_][_][_][_] € le bidon de [_][_][_] L
soit [_][_],[_][_] €/L

Prix moyen de l'huile hydr. : [_][_][_][_] € le bidon de [_][_][_] L
soit [_][_],[_][_] €/L

Prix moyen de l'huile hydr. : [_][_][_][_] € le bidon de [_][_][_] L
soit [_][_],[_][_] €/L

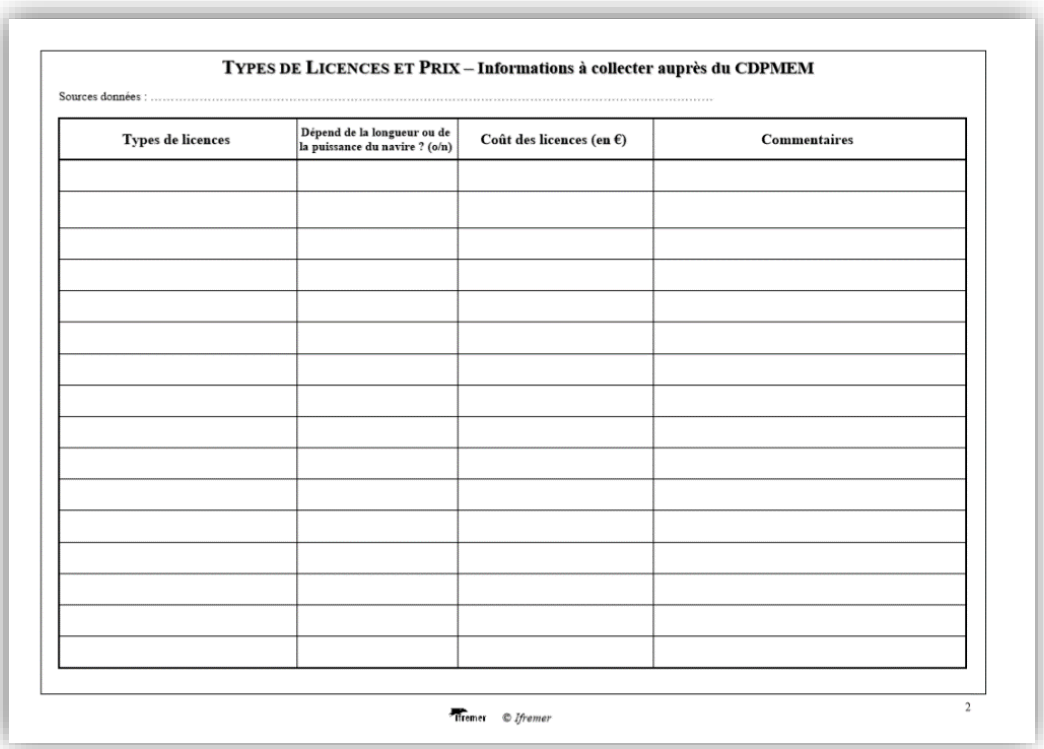
PRIX DE LA GLACE

Sources données : .....

Prix moyen de la glace : [_][_][_][_] €/tonne

Prix moyen de la glace : [_][_][_][_] €/100kg

Ifremer © Ifremer

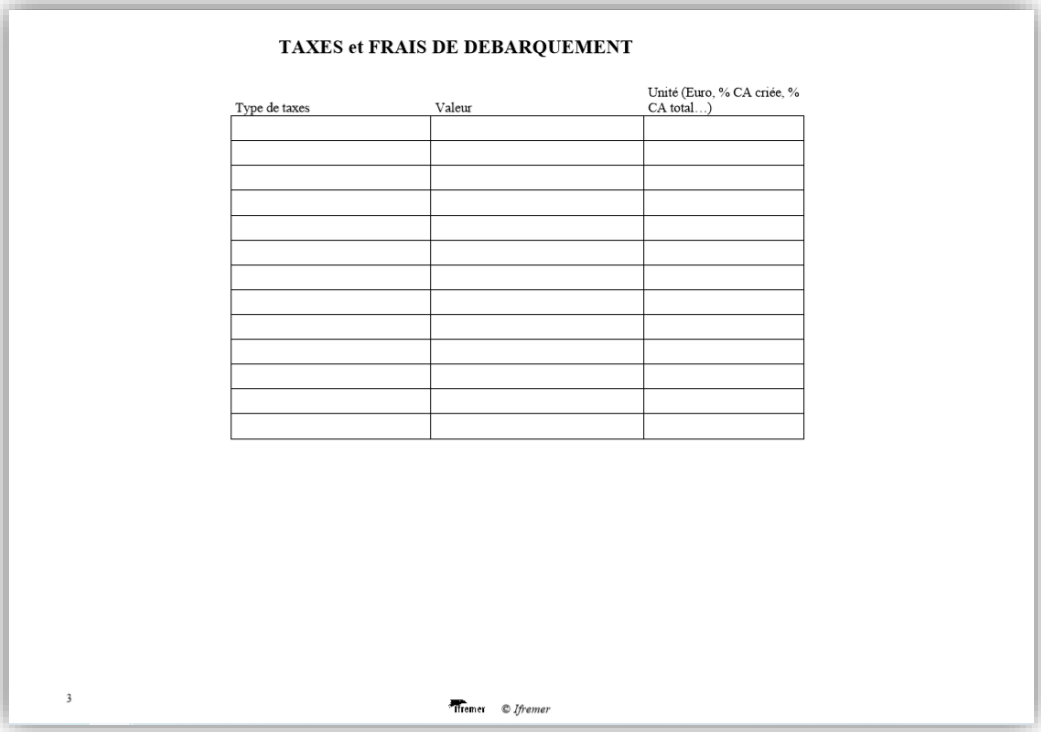


TYPES DE LICENCES ET PRIX – Informations à collecter auprès du CDPMEM

Sources données : .....

Types de licences	Dépend de la longueur ou de la puissance du navire ? (o/n)	Coût des licences (en €)	Commentaires

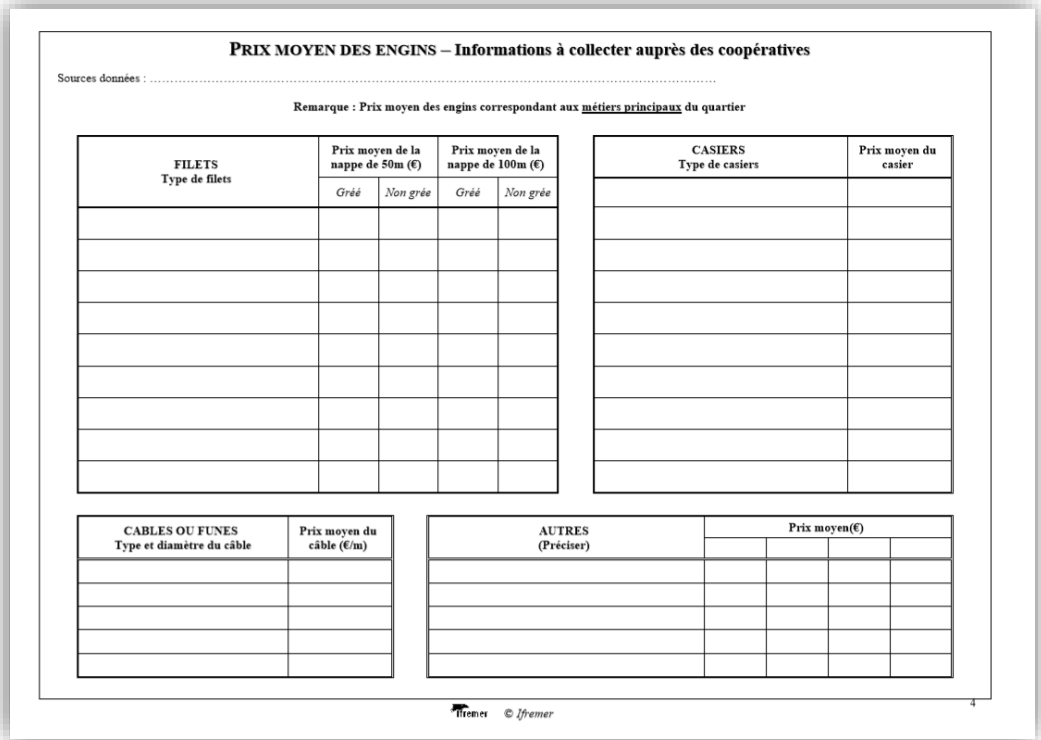
Ifremer © Ifremer 2



TAXES et FRAIS DE DEBARQUEMENT

Type de taxes	Valeur	Unité (Euro, % CA criée, % CA total…)

3 © Ifremer



PRIX MOYEN DES ENGINS – Informations à collecter auprès des coopératives

Sources données : .....

Remarque : Prix moyen des engins correspondant aux métiers principaux du quartier

FILETS Type de filets	Prix moyen de la nappe de 50m (€)		Prix moyen de la nappe de 100m (€)	
	Gréé	*Non gréé*	*Gréé*	*Non gréé*

CASIERS Type de casiers	Prix moyen du casier

CABLES OU FUNES Type et diamètre du câble	Prix moyen du câble (€/m)

AUTRES (Préciser)	Prix moyen(€)			

© Ifremer 4

4.3 Appendix 3. Letter of notification to vessel owners drawn from the sampling plan

Ifremer
Système d'Informations Halieutiques

Liberté • Égalité • Fraternité
RÉPUBLIQUE FRANÇAISE

STATISTIQUE PUBLIQUE

Objet : Enquête sur les données économiques dans le secteur des pêches maritimes en France

Plouzané, le 05 mars 2021

Madame, Monsieur,

Le Service de la Statistique et de la Prospective (SSP) du ministère de l'Agriculture et de l'Alimentation, avec le concours de ses partenaires dont l'Ifremer, renouvelle en 2021 l'exercice de collecte à l'échelle nationale de données économiques sur la pêche professionnelle à l'aide d'un questionnaire individuel. Vos représentants professionnels ont été informés de ce projet.

Les informations collectées dans le cadre de cet exercice portent entre autres sur les emplois créés, les revenus et les dépenses liés à l'activité, ainsi que la valeur du capital physique des entreprises de pêche. Cette collecte annuelle permet de pérenniser à l'échelle nationale un dispositif de suivi des performances économiques et des dynamiques des flottilles artisanales et hauturières dans un contexte économique, environnemental et réglementaire changeant. Or, un tel suivi est indispensable pour assurer une meilleure prise en compte des emplois et de la richesse créés par les activités de pêche professionnelle de même que pour évaluer l'impact de la mise en place de mesures de gestion sur la productivité et la rentabilité des entreprises de pêche à court et moyen termes.

Cette enquête, mise en œuvre par l'équipe de l'Unité d'Economie Maritime de l'Ifremer, au sein du système d'informations halieutiques de l'Ifremer (SIH), concerne un échantillon de navires représentatif de la diversité de la flotte de pêche nationale.

En 2021, votre navire a été sélectionné par un tirage au hasard pour faire partie de l'échantillon de navires à enquêter sur la façade xxxxxxxxxx. Vous allez être sollicité par un observateur de l'organisme xxxxxxxxxx[1] basé à xxxxxxxxxxxx.

Institut français de Recherche pour l'Exploitation de la Mer
Etablissement public à caractère industriel et commercial

Centre Bretagne
1625 route de Sainte-Anne
CS 10070
29280 Plouzané
France

Siège Social
1625 route de Sainte-Anne
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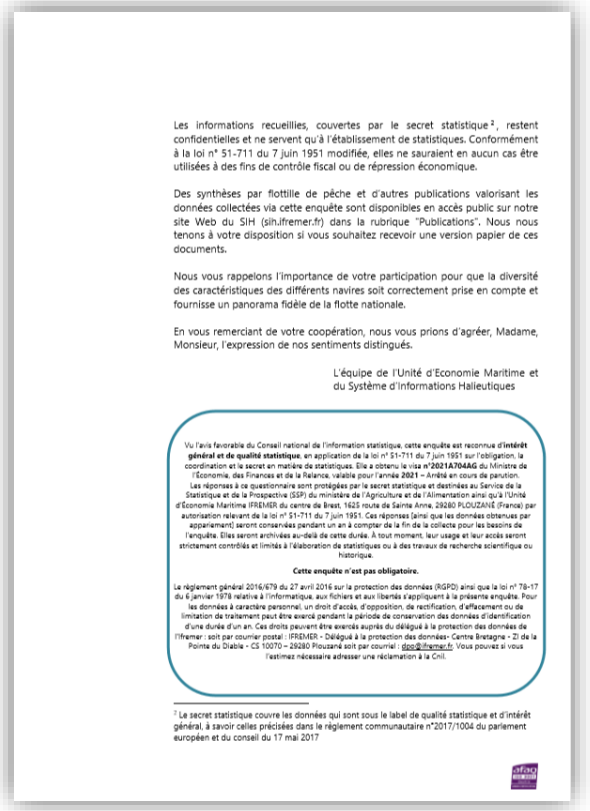
29280 Plouzané
France
R.C.S. Brest B 330 715 368
APE 7210Z
SIRET 330 715 368 00082
TVA FR 46 330 715 368
+33 (0)2 98 22 40 40

www.ifremer.fr

[1] Partenaire sous-traitant de l'Ifremer pour la collecte des données sur les quartiers maritimes de la façade xxxxxxxxxxxxxx



Les informations recueillies, couvertes par le secret statistique[2], restent confidentielles et ne servent qu'à l'établissement de statistiques. Conformément à la loi n° 51-711 du 7 juin 1951 modifiée, elles ne sauraient en aucun cas être utilisées à des fins de contrôle fiscal ou de répression économique.

Des synthèses par flottille de pêche et d'autres publications valorisant les données collectées via cette enquête sont disponibles en accès public sur notre site Web du SIH (sih.ifremer.fr) dans la rubrique "Publications". Nous nous tenons à votre disposition si vous souhaitez recevoir une version papier de ces documents.

Nous vous rappelons l'importance de votre participation pour que la diversité des caractéristiques des différents navires soit correctement prise en compte et fournisse un panorama fidèle de la flotte nationale.

En vous remerciant de votre coopération, nous vous prions d'agréer, Madame, Monsieur, l'expression de nos sentiments distingués.

L'équipe de l'Unité d'Economie Maritime et
du Système d'Informations Halieutiques

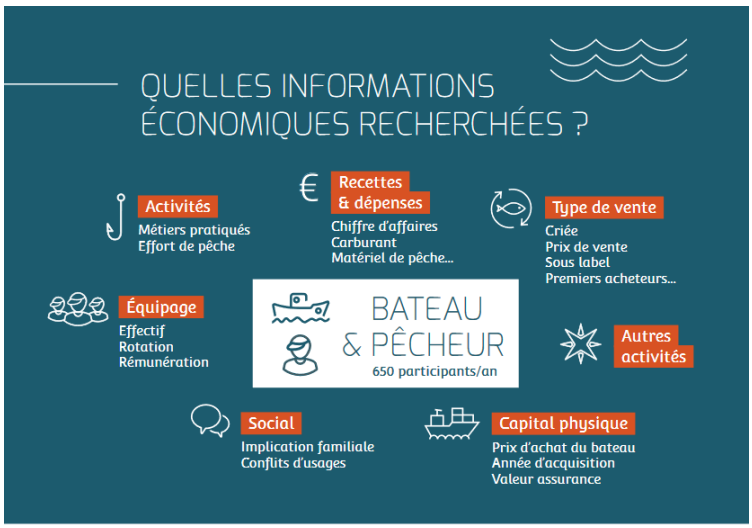
Vu l'avis favorable du Conseil national de l'information statistique, cette enquête est reconnue **d'intérêt général et de qualité statistique**, en application de la loi n° 51-711 du 7 juin 1951 sur l'obligation, la coordination et le secret en matière de statistiques. Elle a obtenu le visa n°**2021A704AG** du Ministre de l'Economie, des Finances et de la Relance, valable pour l'année **2021** – Arrêté en cours de parution.
Les réponses à ce questionnaire sont protégées par le secret statistique et destinées au Service de la Statistique et de la Prospective (SSP) du ministère de l'Agriculture et de l'Alimentation ainsi qu'à l'Unité d'Economie Maritime IFREMER du centre de Brest, 1625 route de Sainte Anne, 29280 PLOUZANÉ (France) par autorisation relevant de la loi n° 51-711 du 7 juin 1951. Ces réponses (ainsi que les données obtenues par appariement) seront conservées pendant un an à compter de la fin de la collecte pour les besoins de l'enquête. Elles seront archivées au-delà de cette durée. À tout moment, leur usage et leur accès seront strictement contrôlés et limités à l'élaboration de statistiques ou à des travaux de recherche scientifique ou historique.

Cette enquête n'est pas obligatoire.

Le règlement général 2016/679 du 27 avril 2016 sur la protection des données (RGPD) ainsi que la loi n° 78-17 du 6 janvier 1978 relative à l'informatique, aux fichiers et aux libertés s'appliquent à la présente enquête. Pour les données à caractère personnel, un droit d'accès, d'opposition, de rectification, d'effacement ou de limitation de traitement peut être exercé pendant la période de conservation des données d'identification d'une durée d'un an. Ces droits peuvent être exercés auprès du délégué à la protection des données de l'Ifremer : soit par courrier postal : IFREMER - Délégué à la protection des données- Centre Bretagne - ZI de la Pointe du Diable - CS 10070 – 29280 Plouzané soit par courriel : dpo@ifremer.fr. Vous pouvez si vous l'estimez nécessaire adresser une réclamation à la Cnil.

[2] Le secret statistique couvre les données qui sont sous le label de qualité statistique et d'intérêt général, à savoir celles précisées dans le règlement communautaire n°2017/1004 du parlement européen et du conseil du 17 mai 2017

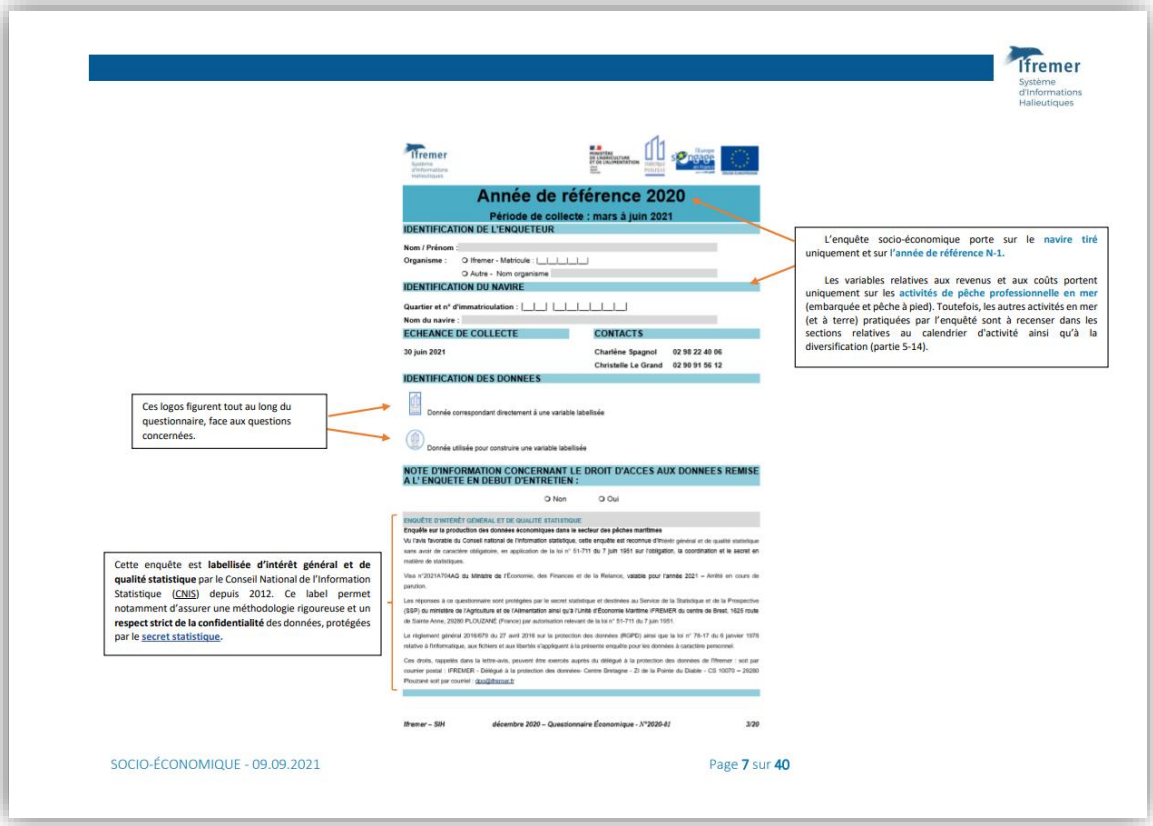
4.4 Appendix 4. Excerpts from the communication leaflet

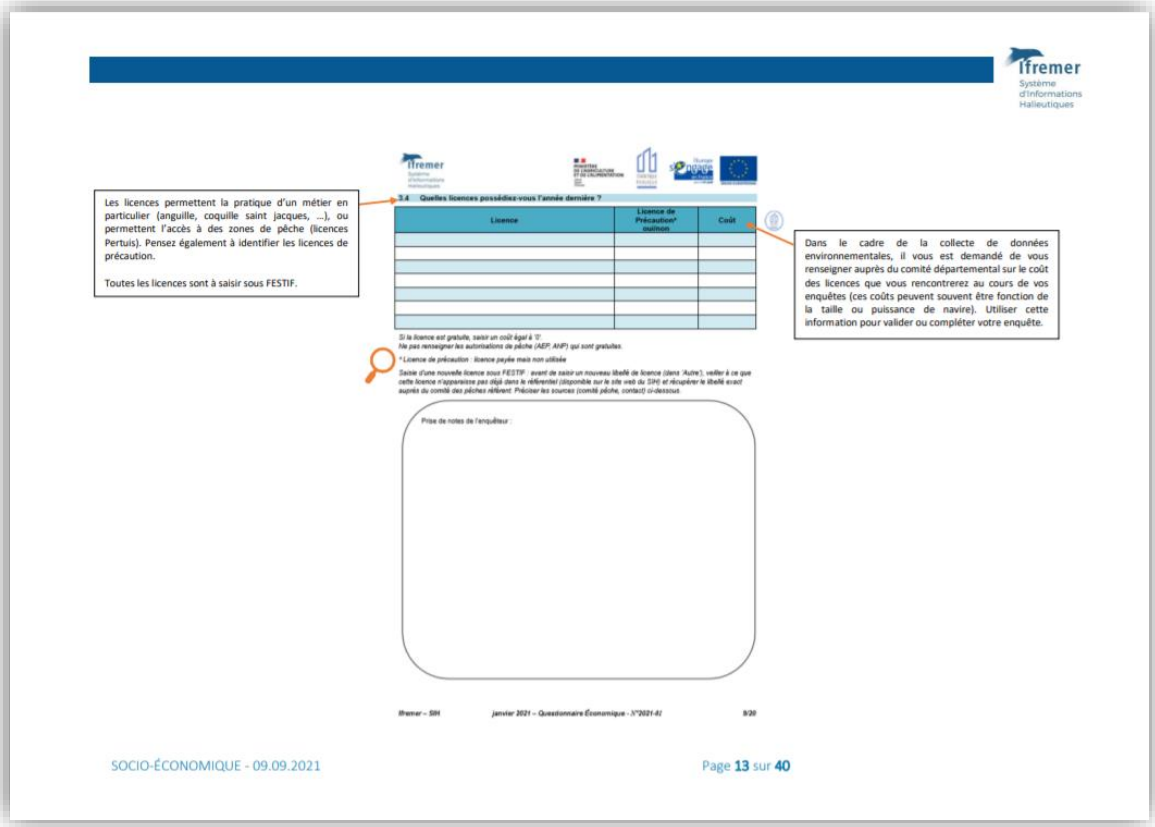


4.5 Appendix 5. Variables collected in the survey and used to calculate the socio-economic variables required by the DCF

Category	DCF variable	Unit	IFREMER individual reporting	Survey variables used
Effort	Days at sea	Days	x	Number of days at sea
	Energy consumption	Litres	x	Fuel volume
Employment	Number of crew on board	Number	x	Average number of crew
	FTEs	Number	x	Average number of crew, number of days at sea
	Total hours worked per year	Number		
	Unpaid labour	Number		
Income	Gross value of landings	Euro	x	Fishing income
	Income from leasing of quotas or other fishing rights	Euro		
	Operating subsidies	Euro		
	Other income	Euro		
	Investment grants	Euro		
Expenses	Consumption of fixed capital	Euro		
	Energy Costs	Euro	x	Fuel costs
	Other non-variable costs	Euro	x	Cost of gears, other fitting out expenses, insurance premium, licences, management centre subscription
	Other variable costs	Euro	x	Oil, bait, food, ice, landing taxes
	Personnel Costs	Euro	x	Personnel costs
	Maintenance and repair costs	Euro	x	Maintenance and repair costs
	Payments for leasing quotas or fishing rights	Euro		
	Value of unpaid labour	Euro		
Capital	Value of quotas and other fishing rights	Euro		
	Investments	Euro		
	Short/long-term debt rate	Euro	x	Share of loans in the financing of the vessel
	Replacement value of capital	Euro		
	Total assets	Euro		

4.6 Appendix 6. Extracts from the guide to the socio-economic questionnaire





4.7 Appendix 7. Tracking features of the 'Festif 2021' software (Version 9.3.0.0) used during the 2021 data collection campaign

Figure 5. Festif software interface for tracking vessels in the sampling plan

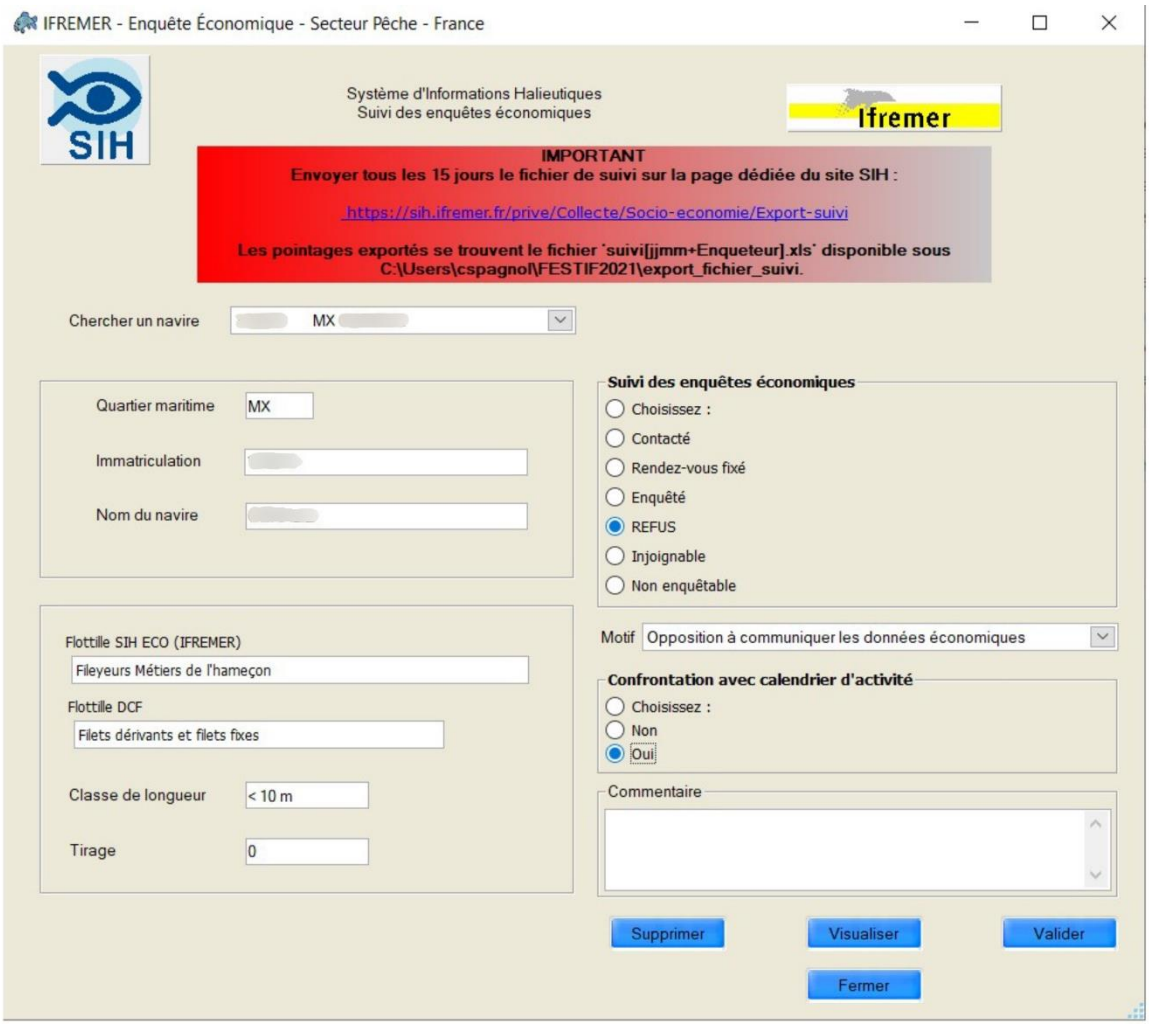
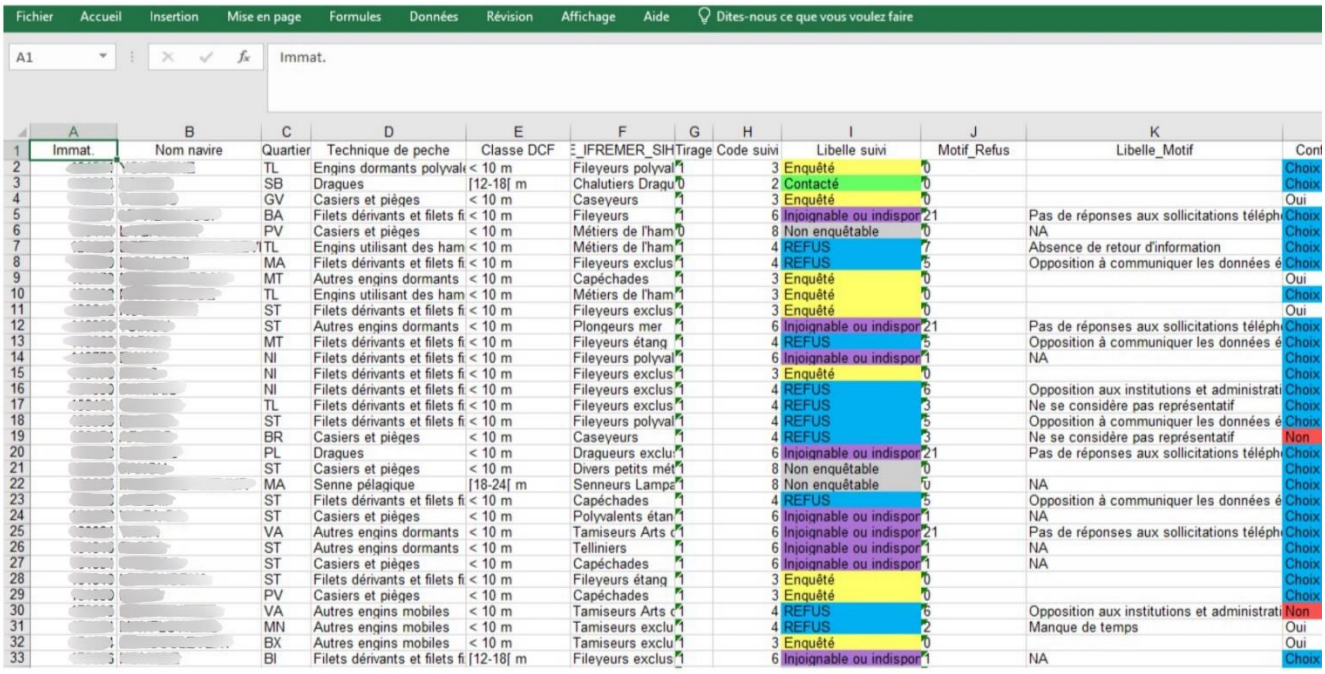


Figure 6. Excel file resulting from the export of vessel tracking scoring carried out in Festif, transmitted to the operational coordinator by the observer (Immat. = registration of the vessel, column F = description of the IFREMER SIH sub-fleet, Tirage [Draw] = equals 1 if the vessel is drawn for the sampling plan, Confrontation [Cross-checking] = checking the economic survey against the activity journal, Utilisateur [User] = Observer ID, Date = Scoring date, Cle_an_immat = Vessel tracking code)



	A	B	C	D	E	F	G	H	I	J	K	
1	Immat.	Nom navire	Quartier	Technique de peche	Classe DCF	_IFREMER_SIH	Tirage	Code suivi	Libelle suivi	Motif_Refus	Libelle_Motif	Cont
2	[redacted]	[redacted]	TL	Engins dormants polyval	< 10 m	Fileyeurs polyval	1	3	Enquêté	0		Choix
3	[redacted]	[redacted]	SB	Dragues	[12-18[m	Chalutiers Dragu	0	2	Contacté	0		Choix
4	[redacted]	[redacted]	GV	Casiers et pièges	< 10 m	Caseyeurs	1	3	Enquêté	0		Oui
5	[redacted]	[redacted]	BA	Filets dérivants et filets fi	< 10 m	Fileyeurs	1	6	Injoignable ou indispor	21	Pas de réponses aux sollicitations téléph	Choix
6	[redacted]	[redacted]	PV	Casiers et pièges	< 10 m	Métiers de l'ham	0	8	Non enquêtable	0	NA	Choix
7	[redacted]	[redacted]	TL	Engins utilisant des ham	< 10 m	Métiers de l'ham	1	4	REFUS	7	Absence de retour d'information	Choix
8	[redacted]	[redacted]	MA	Filets dérivants et filets fi	< 10 m	Fileyeurs exclus	1	4	REFUS	5	Opposition à communiquer les données é	Choix
9	[redacted]	[redacted]	MT	Autres engins dormants	< 10 m	Capéchades	1	3	Enquêté	0		Oui
10	[redacted]	[redacted]	TL	Engins utilisant des ham	< 10 m	Métiers de l'ham	1	3	Enquêté	0		Choix
11	[redacted]	[redacted]	ST	Filets dérivants et filets fi	< 10 m	Fileyeurs exclus	1	3	Enquêté	0		Oui
12	[redacted]	[redacted]	ST	Autres engins dormants	< 10 m	Plongeurs mer	1	6	Injoignable ou indispor	21	Pas de réponses aux sollicitations téléph	Choix
13	[redacted]	[redacted]	MT	Filets dérivants et filets fi	< 10 m	Fileyeurs étang	1	4	REFUS	5	Opposition à communiquer les données é	Choix
14	[redacted]	[redacted]	NI	Filets dérivants et filets fi	< 10 m	Fileyeurs polyval	1	6	Injoignable ou indispor	1	NA	Choix
15	[redacted]	[redacted]	NI	Filets dérivants et filets fi	< 10 m	Fileyeurs exclus	1	3	Enquêté	0		Choix
16	[redacted]	[redacted]	NI	Filets dérivants et filets fi	< 10 m	Fileyeurs exclus	1	4	REFUS	6	Opposition aux institutions et administrati	Choix
17	[redacted]	[redacted]	TL	Filets dérivants et filets fi	< 10 m	Fileyeurs exclus	1	4	REFUS	3	Ne se considère pas représentatif	Choix
18	[redacted]	[redacted]	ST	Filets dérivants et filets fi	< 10 m	Fileyeurs polyval	1	4	REFUS	5	Opposition à communiquer les données é	Choix
19	[redacted]	[redacted]	BR	Casiers et pièges	< 10 m	Caseyeurs	1	4	REFUS	3	Ne se considère pas représentatif	Non
20	[redacted]	[redacted]	PL	Dragues	< 10 m	Dragueurs exclu	1	6	Injoignable ou indispor	21	Pas de réponses aux sollicitations téléph	Choix
21	[redacted]	[redacted]	ST	Casiers et pièges	< 10 m	Divers petits mét	1	8	Non enquêtable	0		Choix
22	[redacted]	[redacted]	MA	Senne pélagique	[18-24[m	Senneurs Lampa	1	8	Non enquêtable	0	NA	Choix
23	[redacted]	[redacted]	ST	Filets dérivants et filets fi	< 10 m	Capéchades	1	4	REFUS	6	Opposition à communiquer les données é	Choix
24	[redacted]	[redacted]	ST	Casiers et pièges	< 10 m	Polyvalents étan	1	6	Injoignable ou indispor	1	NA	Choix
25	[redacted]	[redacted]	VA	Autres engins dormants	< 10 m	Tamiseurs Arts c	1	6	Injoignable ou indispor	21	Pas de réponses aux sollicitations téléph	Choix
26	[redacted]	[redacted]	ST	Autres engins dormants	< 10 m	Telliniers	1	6	Injoignable ou indispor	1	NA	Choix
27	[redacted]	[redacted]	ST	Casiers et pièges	< 10 m	Capéchades	1	6	Injoignable ou indispor	1	NA	Choix
28	[redacted]	[redacted]	ST	Filets dérivants et filets fi	< 10 m	Fileyeurs étang	1	3	Enquêté	0		Choix
29	[redacted]	[redacted]	PV	Casiers et pièges	< 10 m	Capéchades	1	3	Enquêté	0		Choix
30	[redacted]	[redacted]	VA	Autres engins mobiles	< 10 m	Tamiseurs Arts c	1	4	REFUS	6	Opposition aux institutions et administrati	Non
31	[redacted]	[redacted]	MN	Autres engins mobiles	< 10 m	Tamiseurs exclu	1	4	REFUS	2	Manque de temps	Oui
32	[redacted]	[redacted]	BX	Autres engins mobiles	< 10 m	Tamiseurs exclu	1	3	Enquêté	0		Oui
33	[redacted]	[redacted]	BI	Filets dérivants et filets fi	[12-18[m	Fileyeurs exclus	1	6	Injoignable ou indispor	1	NA	Choix

	L	M	N	O	P	Q	R	S	T	U
1	Confrontation	Utilisateur	Date	Commentaire	Cle_an_immat					
2	Choix	[redacted]	14/10/2021		[redacted]					
3	Choix	[redacted]	22/04/2021		[redacted]					
4	Oui	[redacted]	02/07/2021		[redacted]					
5	Choix	[redacted]	26/07/2021	NA	[redacted]					
6	Choix	[redacted]	27/07/2021	vendu en cours d'année	[redacted]					
7	Choix	[redacted]	17/06/2021	NA	[redacted]					
8	Choix	[redacted]	14/06/2021	Activités ok, données économiqu	[redacted]					
9	Oui	[redacted]	06/05/2021		[redacted]					
10	Choix	[redacted]	26/04/2021		[redacted]					
11	Oui	[redacted]	26/04/2021		[redacted]					
12	Choix	[redacted]	29/07/2021	NA	[redacted]					
13	Choix	[redacted]	11/05/2021		[redacted]					
14	Choix	[redacted]	30/07/2021	NA	[redacted]					
15	Choix	[redacted]	30/07/2021		[redacted]					
16	Choix	[redacted]	20/07/2021	NA	[redacted]					
17	Choix	[redacted]	06/07/2021	NA	[redacted]					
18	Choix	[redacted]	11/05/2021		[redacted]					
19	Non	[redacted]	19/04/2021		[redacted]					
20	Choix	[redacted]	29/07/2021	NA	[redacted]					
21	Choix	[redacted]	11/05/2021	ina	[redacted]					
22	Choix	[redacted]	06/07/2021	NA	[redacted]					
23	Choix	[redacted]	26/04/2021		[redacted]					
24	Choix	[redacted]	29/07/2021	NA	[redacted]					
25	Choix	[redacted]	21/06/2021	NA	[redacted]					
26	Choix	[redacted]	29/07/2021	NA	[redacted]					
27	Choix	[redacted]	29/07/2021	NA	[redacted]					
28	Choix	[redacted]	31/05/2021		[redacted]					
29	Choix	[redacted]	27/07/2021		[redacted]					
30	Non	[redacted]	27/05/2021	Ne souhaite pas aider car Ifreme	[redacted]					
31	Oui	[redacted]	22/06/2021	NA	[redacted]					
32	Oui	[redacted]	17/05/2021		[redacted]					
33	Choix	[redacted]	05/07/2021	NA	[redacted]					

4.8 Appendix 8. Entry features of the 'Festif 2021' software (Version 9.3.0.0) used during the 2021 data collection campaign

Figure 7. Festif software interface for entering surveys, vessel selection step

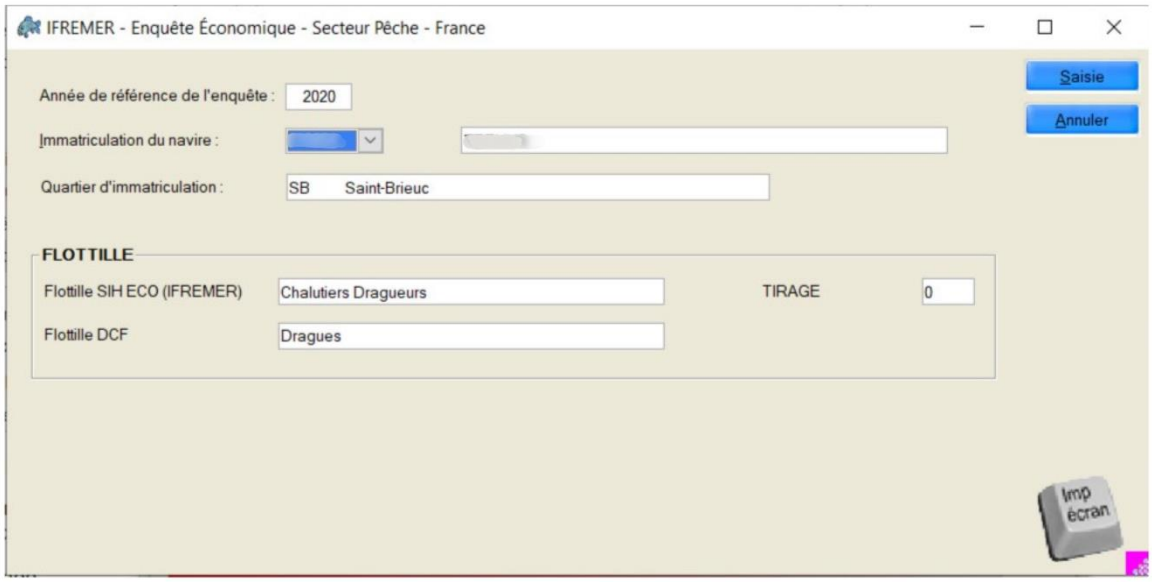


Figure 8. Excerpt from the Festif software input interface for a given vessel – questions about the vessel's journal and activity

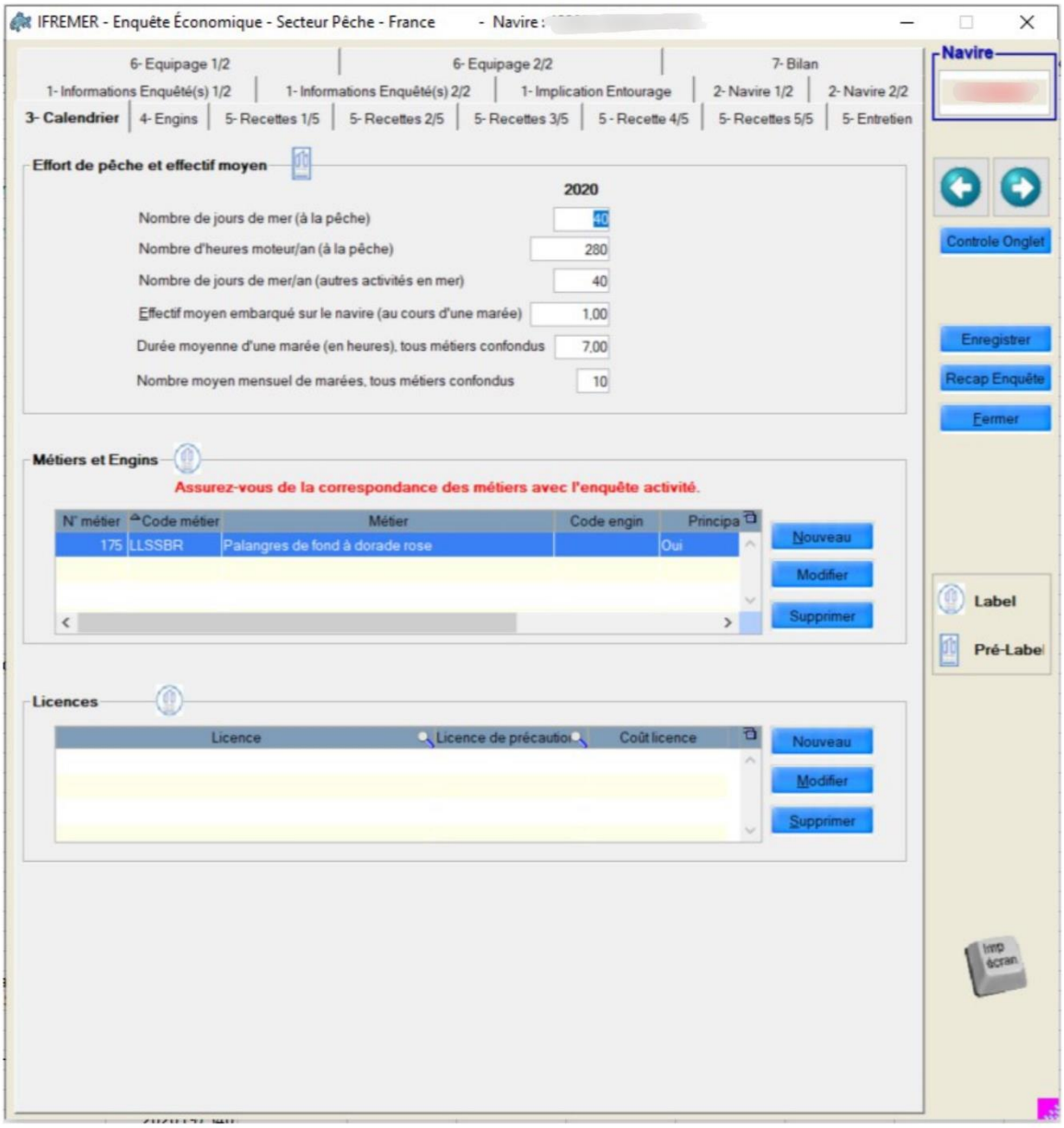


Figure 9. Excerpt from the Festif software input interface: questions on the bad weather fund, landing fees and intermediate consumption for a given vessel.