PGECON 2019 Report

Slovenia, 6th- 10th May



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Introduction

The Planning Group on Economics Issues (PGECON) was established as a subgroup of the Commission Expert Working Group on Data Collection according to Commission Decision (2016)3301 to assist the Commission in the implementation of the Data Collection Framework (DCF). The PGECON 2019 meeting was held in Ljubljana, Slovenia, during the week of the 6th-10th May 2019 with 41 experts (<u>Annex I</u>) representing 24 Member States, DG MARE, ICES, and the JRC. The meeting was opened by the PGECON chairs.

Terms of Reference for PGECON

The ToR for the meeting were drafted in advance of the meeting by the chairs with consultation from DG MARE and session moderators and circulated to PGECON for comment. The final agreed ToR can be seen in <u>Annex II</u>.

| Day | Mon 6th May | Tue 7th | | Wed 8th | | Thu 9th | Fri 10th |
|-----|----------------------------|---------------------------------------|----------------------|----------------------------------|------------------------------|-------------------------------|---------------------|
| | | | | Session 1 | Session 2 | | |
| АМ | People Arriving | ToB1 SocEich Continued | | ToP 2 - Aquacultura | ToP 1 Tutorial W/D2 Cont | ToR 5 - Processing | ToP 7 - PGECON 2020 |
| | | TOK I SECFISI | Continueu | ion 5 - Aquaculture | Tok 1º Tutonai WP3 cont. | Loretta Malvarosa | TUR 7 - PGECON 2020 |
| | | Palf Döring Pasmus Nie | alson & Arina Motova | Claudia Winklor | Isabella Ritetto | ToR 6 - EU-MAP | Emmot Jackson |
| | | Rail Dornig, Rasinus Meisen, & Anna R | | | Isabella Bitetto | Irina Davidjuka/Emmet Jackson | Linner Jackson |
| | LUNCH | | | | | | |
| | | Session 1 | Session 2 | Session 1 | Session 2 | | |
| РМ | ToR 1 - SecFish | ToR 2 - PGECON Status | ToR 1 - Tutorial WP3 | ToR 3 - Aquaculture Cont. | ToR 4 - PGECON Workshop 2018 | ToR 6 - EU-MAP | |
| | Ralf Döring, Evelina | | | | | | Monting Class |
| | Sabatella, Jarno Virtanen, | DG MARE | Isaballa Bitatta | Isabella Bitetto Claudia Winkler | Natacha Carvalho | Irina Davidjuka/Chair | weeting close |
| | Isabella Bitetto, & Hans | | ISabella Biletto | | | | |
| | van Oostenbrugge. | | | | | | |

Table 1 Meeting Timetable

List of Recommendations

A summary list of recommendations can be found in Table 2.

Table 2 Summary of Recommendations and conclusions

| Recommendation Reference | Recommendations/Conclusions | | |
|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|
| ToR 1 – SECFISH Project Results | | | |
| 1.1 | PGECON recommends accepting the conclusions from the SECFISH project where appropriate. It was also agreed to share the | | |
| | deliverables publicly on the DCF website. | | |
| 1.2 | Work Package 2: Harmonization of methodologies for sampling design and estimation methods for fleet and aquaculture economic data collection. It was agreed that each MS should try to follow the suggested procedure. MS experience with the handbook can be | | |
| | presented at PGECON 2020. A Quality Assurance Framework (QAF) | | |

| Recommendation Reference | ation Recommendations/Conclusions | | | |
|---------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| | subgroup workshop should take place to define the process of quality assessment and assurance and revise the guidelines of the methodological report (with reference to the Handbook). Then as outcome, PGECON could provide recommendations and guidelines to AR evaluation EWG how to improve quality evaluation of DCF data and to complement the currently existing quality evaluation procedures. | | | |
| 1.3 | Work Package 3: Development and implementation of common methodologies to disaggregate economic variables by activity and area. It was suggested to hold a second workshop on disaggregation of economic variables to complete follow up work from the workshop at this meeting. | | | |
| 1.4 | Work Package 4: Methodologies for estimation of intangible assets in EU fisheries. It was agreed that the work from this work package should be incorporated into the planned PGECON workshop on PIM method that is planned for October 2019. | | | |
| 1.5 | Work Package 5: Origin and sources of raw material in the EU seafood processing industry. PGECON recommends that the collection of raw material should remain optional and should be carried out as planned in the national work plan. If collected, the raw material data can be included in the national chapter of Economic Report on the EU processing industry. | | | |
| TOR 2 – PGECON Governance and Rules of Procedure | | | | |
| 2.1 | PGECON status should be placed as an agenda point on the National Coordination Meeting to discuss and decide if PGECON should have same status as the RCGs. | | | |
| 2.2 | Following recommendations from PGECON 2018 a draft RoP was created. This was reviewed and updated during PGECON 2019 and should be reviewed by DG MARE. The final draft, regardless of PGECON status, should be adopted at PGECON 2020. | | | |
| ToR 3 - Freshwater Aquaculture in Maritime and Landlocked Countries | | | | |
| 3.1 | PGECON should specifically consider (marine + freshwater) aquaculture sessions in the PGECON meetings' agenda, separated from fisheries. | | | |
| 3.2 ToR 4. PGECON V | A workshop on aquaculture data collection is recommended before the data call in 2020 to discuss a range of issues, including, and not limited to, environmental variables, segmentation, data reporting structure etc. All of these are listed in the extended recommendation in the report. Vorkshop Results 2019 | | | |
| <u> </u> | · | | | |

| Recommendation | Recommendations/Conclusions | | | |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Reference | | | | |
| PGECON workshop (WS) on social variables and review of the 2019 socio-economic data call | | | | |
| 4.1 | The Guidance Document updated following the work during the workshop should be maintained as a living document and made accessible to all MS. However, the section on Fish Processing needs to be revised and updated. | | | |
| 4.2 | PGECON 2019 discussed how to include new segments with thresholds to report low activity vessels to avoid distortions in performance results. It was agreed that MS can use the GEO indicator in the data call templates to split low activity vessels and use a threshold in next data call. | | | |
| 4.3 | STECF EWG meetings on the Annual Economic Report of the EU fisheries and Social data in the EU Fisheries Sector should not be held at the same time, or if they are that experts are not requested to split their time between the meetings. | | | |
| <u>ToR 5</u> . Processing | | | | |
| 5.1 | Considering the dates of proposed data calls, MSs data collection calendars, dates for EWGs and MS concerns to be able to provide data for a 2019 EWG report based on 2017 data, the group proposed that the date for the fish processing data call should be from mid of October to mid of November 2019. This would result in an EWG meeting in late November/early December. These dates will need to be approved by STECF. | | | |
| 5.2 | There was a clear indication from the group, supported by the results of WP5 SECFISH, that data collection on raw material should remain voluntary. | | | |
| ToR 6 - Recommendations for the revision of the Multiannual Union Programme | | | | |
| 6.1 | PGECON should administer a live guidance document tracking all variable definitions, amendments, clarifications etc. to make it easier for MS to understand variable definition evolution. | | | |
| 6.2 | Economic data collection in fleet: There is no need for revisions to any definitions. Specifically, there is no need to change, at this moment, the definitions to 'active fleet' or 'fleet segment' or the text under Chapter III Data requirements 5(a). | | | |
| 6.3 | Economic data collection in fleet: Reinstate FTE into Table 5a so to reflect the data call which still requires FTE as part of the economic data (separate to the social data). | | | |
| 6.4 | Economic data collection in fleet: Divide 'Engaged Crew' into 'Paid' and 'Unpaid'. The division of employment into paid and unpaid will give clarity to the figures provided by MS. | | | |

| Recommendation Reference | Recommendation Recommendations/Conclusions | | | |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| 6.5 | Economic data collection in fleet: Include a footnote under Table 5B to reinstate the definition of the dominance criteria from EU Dec. 93/2010: 'The dominance criteria shall be used to allocate each vessel to a segment based on the number of fishing days used with each gear. If a fishing gear is used by more than the sum of all the others (i.e. a vessel spends more than 50 % of its fishing time using that gear), the vessel shall be allocated to that segment. If not, the vessel shall be allocated to the following fleet segment: (a) 'Vessels using Polyvalent active gears' if it only uses passive gears; (b) 'Vessels using active and passive gears'. | | | |
| 6.6 | Economic data collection in fleet: at present, no changes to Table 5B should be made. However, there was discussion about the utility of the current fleet segmentations definition and while PGECON does not recommend a change to these, at present, it does recommend a workshop to investigate alternate methods of segmentation as defined by 'fisheries' rather than dominant gear. The following terms of reference are proposed for this WS: Group vessels by characteristic types of fisheries (based on expert knowledge), Analyse the cost structure of vessels grouped accordingly, Compile principles for grouping vessels (e.g. targeted stocks, targeted species groups, pursuing typical fishing patterns over the year), Apply different approaches to MS fleets to investigate if fleets can be thoroughly covered, Compare applicability of different approaches to different regions. | | | |
| 6.7 | Data collection in aquaculture: No revision is currently needed for Table 9 in the revised EU-MAP. Segmentation itself is clear, but more guidance for MS is needed on how to allocate production and economic variables into the EU-MAP segments. Currently it is too early to give an official recommendation by PGECON, but a footnote to Table 9 could be added referring to recommendations by aquaculture EWG and PGECON. | | | |
| 6.8 | Data collection in aquaculture: to include FTE national (annual data collection) in Table 7 in the new EU-MAP and to make "number of hours worked by employees and unpaid workers" from the Table 7 optional. | | | |
| 6.9 | Data collection in processing: adding a new heading to EU-MAP Chapter III: 7 "Social and economic data on fish processing, to enable | | | |

| Recommendation Reference | Recommendations/Conclusions |
|-----------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | the assessment of the social and economic performance of the Union fish processing sector". The Chapter III.7 should include the definition referring to the definition provided under DCF (Chapter 4, section B.4 of COMMISSION DECISION 2010/93/EU) "The population shall refer to enterprises whose main activity is defined according to the EUROSTAT definition under NACE Code 15.20: 'Processing and preserving of fish and fish products'", currently NACE code 10.20." Only number of firms and turnover for the secondary activity companies should be reported. For enterprises that carry out fish processing, not as a main activity, only number of firms and turnover should be reported. |
| 6.10 | Data collection in fish processing: the segmentation on fish processing should be provided in new EU-MAP Chapter III under new heading 7. The definition of size classes should be in line with the Eurostat definition for SBS. The recommendation comes from the discrepancy with DCF and first EUMAP definitions where the first class was <=10 employees while in Eurostat (SBS regulation) the first class is <9 employees (enterprises with 10 employees are included in the second class). Considering that EUMAP is based on the recommendation of alignment with Eurostat and some MS use SBS we suggest using the same size classes. A reference to size classification of SBS 11 11 0 |
| | according to commission regulation (EC) 251/2009 (from STECF 13- 31 (EWG 13-15) recommendation) should be added. The segmentation in the EU-MAP guidelines table 3C should be revised accordingly (COM 2016/1701). |
| 6.11 | Data collection in fish processing: to make "number of hours worked by employees and unpaid workers" optional in the table 11. |
| 6.12 | Social data collection: continue using the current frequency - every three years starting in 2018 when first data was collected for 2017 until further experience has been gained from both end users and experts. |
| 6.13 | Social data collection: no revision needed in the table 6 and 11 but the pilot study should be deleted from the new EU-MAP text (Chapter III 5 (b); 6 (b)) and the text box for the pilot study in the new EU-MAP guidelines should be revised accordingly (COM 2016/1701). The pilot study results should be included in the new EU-MAP on the ongoing basis. |
| 6.14 | Social data collection: the option for two types of age categories for variable "Employment by age" in fish processing Table 11 should be provided for MS. The Table 11 does not require the revision but in the |

| Recommendation Reference | Recommendations/Conclusions | | | |
|-----------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| | document for definitions the two types of age categories should be included. In the first instance MS should use PGECON age categories and, only as a second option, to align with other EU standards (Eurostat LFS). Otherwise, MS should justify different choices. | | | |
| | Age categories for Fisheries should be broken down further and updated in PGECON definitions. The age category '40-64' should be broken down, at least, by '40-54' and '55-64'. The variable "Employment by education level" should be optional in the table 6 and table 11 and where possible for those MS reporting this a variable on Vocational/Technical training should be included. | | | |
| 6.15 | The collection of raw material should remain optional and be carried out as planned in the national work plan. The recommendation is based on the outcome from the SECFISH project and the discussion at the PGECON meeting. If collected, the raw material data can be included in the national chapter of Economic Report on the EU processing industry | | | |
| 6.16 | PGECON recommendations on economic data for recreational fishery: PGECON agreed that any outcome from the results of the SECFISH project on recreational fishery (WP7) should be consulted as there was not enough expertise at the meeting to address this issue. | | | |
| 6.17 | PGECON recommendation on new data collection: to request biologists to take into consideration the possibility of including biological data collection for freshwater commercial and recreational fisheries under the EU-MAP biological sections as optional. The inclusion of biological data is requested by landlocked MS based on pilot study results, showing that the quantitative and qualitative information received could in turn improve the analysis of the freshwater aquaculture sector. Especially sound data on fish biomass are of interest for the aquaculture sector that produces stocking/restocking material and economically rely on this activity. In fact, freshwater fish biomass data serve as an important demand indicator for the production of native species' fingerlings /juveniles in freshwater aquaculture. | | | |
| 6.18 | PGECON recommendation on environmental data for aquaculture: the purpose of the data collection should be clarified by the Commission and decision to keep or delete Table 8 Environmental variables for the aquaculture sector from the new EU-MAP should be discussed. | | | |

| Recommendation Reference | Recommendations/Conclusions | | | |
|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| | PGECON recommends: quality assurance framework and methodological report with reference to handbook should be included under the new EU-MAP Chapter III (5,6,7). The EU-MAP format for submission of WP should be revised accordingly (COM 2016/1701). The table 5B should be deleted from EU-MAP guidelines (COM 2016/1701) as it does not provide the comprehensive information about quality. | | | |
| 6.19 | PGECON recommends making a revision under Annex 1 Methodology in the Methodological document "Methodologies for the socio-economic data described in EU-MAP Ad hoc Contract Commitment No SI2 725 694 Ref. Ares (2016)22440332 - 26/05/2016. | | | |
| | PGECON (Zagreb 2016) considered that it is not feasible to obtain a complete and fully defined document on methodologies for calculation and collection of each economic variable through a (short) ad hoc contract. Therefore, PGECON suggested to implement the procedure expanded on in <u>ToR6</u> . | | | |
| ToR 7 – PGECON | Calendar 2019-2020 | | | |
| 7.1 | The following meetings and chairs were decided for the remaining meeting in 2019 and for workshops in 2020. It was decided that the other workshops identified could take place in parallel to other workshops and/or could be run as specific extended ToR at PGECON 2020. Workshop on Capital Value estimations and PIM & Intangible assets. 7-10 October 2019, Salerno, Italy. Chairs: Evelina Sabotela, Jarno Virtanen. PGECON 2020, May 2020 [either 4-8 or 18-22], Bulgaria. Hosted by Simona Nicheva and Kolyo Zhelev. Chaired by Arina Motova, Monica Gambino Workshop on fleet segmentations and aquaculture topics. TBC. Quality Assurance Framework Subgroup Workshop. TBC. Finland is a possibility. | | | |
| 7.2 | Future PGECON reports need to have concise recommendations clearly identifying who the recommendations are targeted at (PGECON functioning, MS, STECF, end-users, Com. etc.). Future meetings will try, where possible, to group and timetable ToRs by fishery, aquaculture, and processing sectors to accommodate experts. A shared folder should be maintained to keep 'corporate memory' and share documents. The ftp folder maintained by the JRC was identified as a possible solution. | | | |

ToR 1. SECFISH Project Results

Objectives

During the first afternoon and morning of the second day an update on the SECFISH project was presented by SECFISH Work Packages (WP) leaders. There was also a training session timetabled for WP3 which took place over Tuesday afternoon and Wednesday morning. The output from the workshop is presented in ToR 1 – SECFISH tutorial.

WP leaders presented on the following work after an introduction to the project from Ralf Döring:

- 1. WP1-Presentation of the Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis and the results of selected questions from the questionnaire. Proposals for the revision of the EU MAP (Evelina Sabatella).
- 2. WP 2 Sampling Design and estimation methods for fleet and aquaculture economic data collection. Overview on the contents of the handbook will be presented (Jarno Virtanen).
- 3. WP 3 Development of common methodology to disaggregate economic variables (Isabella Bitetto).
- 4. WP 4 Methodologies for estimation of intangible assets in EU fisheries (Hans van Oostenbrugge).
- 5. WP 5 Origin and Sources of raw material in European seafood industry (Rasmus Nielsen).
- 6. WP 6 Social Indicators (Arina Motova).
- 7. WP 7 recreational Fisheries (Harry Strehlow, proxy Ralf Döring).

Achievements

DG Mare issued a call for proposal in 2017 (MARE 2016/22) for the improvement of regional coordination within the Data Collection Framework (DCF). The SECFISH project is funded under this call and dedicated to issues regarding the data collection of social and economic data. It started in December 14th, 2017 and finished in May 14th, 2019 lasting 18 months.

Ralf Döring, the project coordinator, presented a general overview on the SECFISH project and the objectives of the specific work packages (WP). Afterwards the WP-Leaders presented the results of the specific tasks.

Work Package 1: Summary of what has been achieved in 2016-2017

Evelina Sabatella presented the work in $\underline{WP 1}$ (Overview on achievements in 2016/17 (PGECON, Advisory system) and explained the results. WP1 focused on reviewing the

achievements and failures in the context of the existing pan-EU coordination activities for the collection of socio-economic data for the fleet, aquaculture and processing sector.

The first objective was to list the issues addressed by PGECON and its working groups and to analyse the impacts of improvements to the data collections at MS and EU levels. A second objective was to outline the functioning of PGECON and links to Regional Coordination Groups.

In synthesis, the analysis reported in the deliverable pursues the following objectives:

1. A critical review of the relevant documents of PGECON, Liaison Meeting (LM), STECF EWGs and EUROSTAT.

2. Identification of the main subjects and steps addressed by PGECON.

3. Design of a SWOT analysis focusing on the strengths, opportunities, weakness and threats of the current coordination activities under the PGECON.

From the 'D.1.1: Report on the main outputs of PGECON and its working groups and on suggestions for possible improvements in the future coordination activities' several conclusions were made. Some good examples of pan-regional coordination already exist (e.g. SIM work on definitions and methodologies, guidelines on data quality), but still there is room for improvement. The future challenges are focused on assuring data quality and improving data availability as well as end-user-oriented collection. Areas that still need to improve coordination, collaboration and standardization are: data quality, role of end users (role and data needs), data dissemination and standardization of methodologies. For some of these topics, as demonstrated by the SWOT analysis, despite some measures that have been already undertaken, several gaps exist. Possible improvements in this field could be achieved through:

- increasing the synergies between Member States to improve the efficiencies in data collection and management;
- spreading best practice e.g. sharing IT tools. Sharing tasks that require very specific knowledge, such as statistical programming would be beneficial;
- listing all the quality control procedures already implemented to be shared among countries/institutes in charge of DCF;
- improving quality control by sectors (fleet, processing, aquaculture) through setting minimum standards, or by following standards such as the EU Statistics Code of Practice, formalizing procedures and by having methodologies reported through standard methodological reports
- development of common web interface workspace to improve cooperation and intersessional work. Currently only the DCF web page managed by Joint Research Centre (JRC) is being used during the entire year, while PGECON folders are mostly used during the meetings.

From the discussion at PGECON the question of the future role of PGECON was discussed as well as the issue of outstanding questions raised at PGECON meetings which are still pending or not finalised.

Work Package 2: Harmonization of methodologies for sampling design and estimation methods for fleet and aquaculture economic data collection

A Handbook on 'Methodologies on sampling designs and estimation methods for fleet and aquaculture economic data collection' was produced under WP 2 and presented by Jarno Virtanen. Work Package 2 aimed to harmonize the methodologies of sampling design and estimation methods by providing a practical manual based on the general theory of probability sampling.

The handbook can be used by the Member States as a repository for supporting guidelines in economic data production. The handbook explains the general principles of probability sampling and essential requirements for a good quality survey plan and covers the basic sampling techniques. Description of each design will be accompanied by the explanation of appropriate methods of estimation, as well as uncertainty assessment leading to a well-based coefficient of variation. The methods are illustrated with extensive worked examples under a realistic synthetic population by using sampling and estimation procedures for samples of different sizes. The results are evaluated with small simulation experiments. General methodological conclusions are provided as well as brief guidelines for practical application.

The Handbook was made available during the meeting and there was a positive reaction to this development. The following observations were raised during the discussion:

- The Handbook can be used as a reference for National Work Plans to justify the described methodologies.
- It was agreed that the handbook would be very useful, and that each MS should try to follow the suggested procedures, thus using the handbook as a reference. MS could then report back at PGECON 2020 with their user experience(s) and issues encountered, or there might be a separate workshop where the methodologies are explained in detail, and MS can be given the opportunity to work through them.

Work Package 3: Development and implementation of common methodologies to disaggregate economic variables by activity and area

Isabella Bitetto presented the results of <u>WP3</u> ('Development and implementation of common methodologies to disaggregate economic variables by activity and area') and chaired a training session on the R-code(s) for the disaggregation of the economic data, which is presented separately in this report.

The partners in this WP developed a methodology for data disaggregation and tested it with data from several MS. Further work is necessary to be able to apply the method to other cases and to estimate economic data at lower fleet activity level, e.g. metier.

Specifically, WP3 aimed at developing a standard methodology for:

- Deriving relationships between variable costs and transversal variables on individual vessel sample data by means of simple linear regressions and Generalized Linear Models (GLM), to test the significance of the métier on the costs structure (phase 1);
- Disaggregating variable costs time series from fleet segment level to métier level and developing a validation tool of the disaggregated costs (phase 2).

Phase 1 needs individual vessel data to derive the relationships, while phase 2 needs only the official time series of costs (by fleet segment) and transversal variables (by fleet segment and métier), as well as the coefficients of the relationships, as estimated in phase 1. Thus, this second phase does not use the individual vessel data and could be carried out by any end-user, given that all the input of phase 1 is made available.

The defined methodology was, then, implemented in 6 scripts in R language to deliver an open and flexible tool working on .csv files in a common format.

The following issues were raised/discussed:

- Although data on métier level were requested in the last FDI data call the data set is not yet available publicly due quality issues with data provided by MS (discards estimates etc.).
- The tool should be useable for most disaggregation cases and further improvements and adjustments are anticipated following some experience with the methodologies.
- There are coefficients which MS can provide using primary individual vessel data. The coefficients can then be used by end-users to apply to DCF economic data set in combination with FDI data without having to utilize the confidential individual vessel data.

Work Package 4: Methodologies for estimation of intangible assets in EU fisheries

In the last presentation of the afternoon Hans van Oostenbrugge presented the results of \underline{WP} $\underline{4}$ on the valuation of intangible assets. The project collected information on the implementation of fishing rights in the MS and several MS tested the proposed methods for the economic valuation.

The work package aimed to:

- Provide an overview of fishing rights and the available data in relation to fishing rights in all EU Member States.
- Define a methodology for estimation of the value of different types of rights (license, quota, transferable and non-transferable, etc); specify the input as required for the estimation.
- Define a methodology to separate the intangible part of capital (quota, license, etc) from the overall capital value when this value is not directly observable.
- Investigate factors determining changes in values of intangible assets.
- Provide guidelines for estimation of all circumstances that have been observed in Member States and when markets exist for ITQs, that prices could be directly observable.

To reach all the objectives stated above the following activities (steps) were carried out:

Step 1: EU wide inventory of types of rights, data availability and methods used for valuation

To attain a full overview of the types of rights used and data availability, both a desk study on the available information from scientific literature and national programs and annual reports on the topic of fishing rights (e.g. Annual Economic Report on the EU Fishing Fleet, National Plans) was carried out. It was found however that there is very little information on the valuation of fishing rights methods available in either fisheries literature or the existing information from the MS.

In addition, a questionnaire was sent out to all and the survey was completed by fifteen EU countries. National correspondents of Ireland, Portugal and Slovenia replied that no fishing rights were in place in their country. The questionnaire provided information on the type of rights used, the valuation methods available and the information available for valuation. This information was turned into a EU-wide overview on the systems of fishing rights, data availability and methods used and a complete list of types of situations (combinations of fishing rights and available data) which the developed guidelines need to cover.

Step 2 Development of theoretical valuation models of fishing rights

Based on a literature review on the valuation of fishing rights and valuation method of intangible assets in general a theoretical framework was developed to value the fishing rights. After a general introduction to fishing rights and a description of fishing rights in the context of intangible assets, the review summarizes the available methods for valuation of these rights. It encompasses both methodological standards developed by official authorities such as the International Valuation Standards and information on valuation of fishing rights and production rights in other sectors dependent on natural resources (e.g. agriculture). Special attention has been given to the problem of distinguishing between the value of intangible assets (e.g., licenses) and the value of tangible assets (e.g., vessels).

In combination with the assessment of the type of rights in use, the overview of valuation methods resulted in a preliminary decision tree to choose the valuation method most applicable to each type of fishing rights. Three preferred valuation methods were distinguished:

- Market-based pricing in the case where rights market data exists.
- Discounted cash flow method, in case fishing rights are transferable, but no market prices are available.
- Hedonic pricing method, in case fishing rights are attached to the physical asset (vessel).

Step 3: Analysis of factors determining the value of intangibles.

Preferably, the techniques used for the valuation of intangibles should consider the factors that influence their market value. Therefore, an analysis of the effects of external factors on the value of fishing rights was carried out. Because of the limited amount of cases available

with enough data only the Dutch fisheries were analysed. The analyses included detailed accounts information available from almost 6000 quota transactions from the period 2003-2017. In a regression analysis the effects of a wide variety of both economic factors, catch rates and the availability of fishing rights were tested. As there was too little information available from selling transactions, leasing transactions were used for the analysis. The analyses showed that quota lease prices depend on external factors (e.g. fish prices) to some extent, but that the explanatory power of these factors is low. This confirms that the value setting of quotas is highly complex and case specific and that it is difficult to use external variables to estimate the values of fishing rights.

Step 4: Application of valuation techniques to case studies

From the combination of valuation methods and types of fishing rights, five case studies were selected in which the various valuation techniques were applied. These cases covered various types of fishing rights (e.g., ITQs in multi species fisheries, ITQs in single species fisheries and fishing licenses) and levels of information availability. The case studies included both market based pricing and indirect pricing based on the Discounted Cash Flow method and resulted in a comparison of values from various methods. Due to lack of data, the application of the hedonic pricing methods could not be tested. Sensitivity analysis was carried out in one case study to assess the effects of these assumptions on the outcomes. The application of the case studies showed that the Discounted Cash Flow method can be used to valuate fishing rights that are not attached to a vessel. However, the outcomes depend to a large extent on the parameters used in the calculation of fishing rights that are attached to a vessel is more complex and needs separate data to be collected.

Based on the theoretical framework and the identification of fishing rights in the EU, draft guidelines for the valuation of fishing rights were developed. The draft guidelines were tested in the case studies and feedback from the case studies was used in the preparation of the final guidelines. These were also presented at PGECON 2019.

Two important questions were raised in the presentation:

- It was stated that some of the issues with the valuation may not be easily tested as additional data collection may be necessary.
- A possibility could be that STECF investigates these issues to give advice on the value of some of the parameters.

The application of the guidelines has been a very good exercise but also showed that the issue of valuating the fishing rights is not solved by providing guidelines. It came out that the application of the Discounted Cash Flow method to estimate the value of fishing rights that can be transferred is possible for all cases. The outcomes show however that the application of the method is very sensitive to the assumptions for the calculation of the net present value. More information and discussion about the choice of these parameters is needed to arrive at a consistent approach. Implementing the Hedonic regression to estimate the value of the fishing rights in case they are attached to the vessel turned out to be impossible for the partners, because the available data on transactions of vessels were not

sufficient to carry out decent analyses. Therefore, additional analyses in other case studies should be carried out to elaborate this part of the guidelines.

In conclusion the project provided a good starting point for the valuation of fishing rights, but the guidelines should not be the final version that can be applied without further work to the data collection of all member states. It is recommended that:

- PGECON takes up further testing of the guidelines in a wider context in a specific workshop and the refinements of the guidelines. This will also need to include recommendations for additional data collection in case the value of fishing rights cannot be obtained from the data currently collected (as might be needed for the Hedonic pricing).
- DG Mare stated that they are in favour of a follow up to this work and that there could be a PGECON Workshop or PGECON case studies created in the future.

Work Package 5: Origin and sources of raw material in the EU seafood processing industry

Rasmus Nielson gave a summary of WP5 on collection of raw material data in seafood processing sector.

The SECFISH study examined if the following variables could be collected at the enterprise level:

- Volume and value of raw materials entering the industry
- By species and origin (place of catch or production)
- By production method (fishery or aquaculture)
- By type of processing (fresh, frozen and semi processed)
- Price of the raw materials purchased

From the SECFISH project results it was concluded that the enterprises in the fish processing industry in EU can deliver the raw material data containing the information needed. However, the industry is, in general, very reluctant to deliver data because it is costly to gather, organise and deliver the data to data collectors or authorities. Furthermore, the benefit for collecting these data, from an industry perspective, seems relatively limited compared to the cost.

Pilot studies on the collection of raw material data also show limited success in collecting actual data due to limited industry participation. Without industry participation it will be very difficult to collect data and provide data at the necessary level to conduct in-depth analysis.

Therefore, the PGECON recommends that the collection of raw material should remain optional and should be carried out as planned in the national work plan. If collected, the raw

material data can be included in the national chapter of Economic Report on the EU processing industry. This recommendation is repeat and specifically listed in ToR 6.

Work Package 6: Social indicators

Arina Motova gave a presentation on the results of <u>WP6</u>. The work conducted in WP6 was focused on social data—end users, possible applications data use and linking societal indicators available from other data sources (e.g. EUROSTAT) with the fisheries, aquaculture and processing sectors. The research also included investigating relevant international data sources (e.g., EUROSTAT, OECD, FAO) to identify available data and useful variables with the end-goal of evaluating the feasibility of extracting data already available from these international data sources. For the best use of data and variables, as found with all types of data, including social, the ultimate needs and requirements of end users need to be understood, as this impacts what data should be collected and how they should be collected.

This part of the project provided an initial investigation into the availability of socioeconomic data and a methodology for socioeconomic data collection for EU fisheries, aquaculture, and the seafood processing industry, with the goal of providing some guidance for meeting the social science data needs of the EU.

The current list of social indicators is a small portion of the information that might be needed for some end users (e.g. ICES WGSOCIAL), however it covers most of current CFP and EMFF evaluation needs. Regional and case studies approach should be assessed if additional data is needed for specific purposes. Social data collected by DCF could be stored and stratified so that regional differences could be analysed. However, for proper socio-economic impact assessment of fisheries management measures, a link to vessel is needed in the future to analyse the economic and social variables in combination. Data is currently could be used for EMFF and seafood sector employee's social and demographic characteristics analysis. International guidelines should be followed when definitions are revised. There is variability in methodologies taken by MS and there is no link to the fishing sector in cases when fisherman registers are used.

The group discussed if the territorial allocation of employment should be included in the revised EU MAP. The group felt that is was too early to say the data should be reported by territorial divisions, however most of the people agreed that it might be useful for the future analyses.

According to the EU MAP the first social indicators should be collected in 2018 by all MS. The first data call on Social indicators was launched this year with the economic data call for fleet and the data is assessed by STECF will be published after STECF summer plenary, however the data for fish processing sector will be requested in autumn and it is too early to assess the results of social data collection effort in 2018.

Over a last couple of years PGECON allocated a lot of effort assisting development of definitions for the social indicators of the EU MAP. SECFISH used the same list of agreed definitions when analysing EU MAP variables and proposed a technique of how to estimate from the sample to the population for social indicators, however more guidance and coordination might be needed in the future based on the results of the first data submission.

Work Package 7: Recreational fisheries

Ralf Döring presented this work package as the work package leader was not present at the meeting. <u>WP 7</u> aim is to strengthen regional coordination in marine recreational fisheries (MRF) data collection, including biological and socioeconomic data, in line with the momentum towards a regional approach in fisheries management introduced by the Common Fishery Policy (CFP, EU 2013). Specific goals were to report on the main outputs of ICES WGRFS (Working Group on Recreational Fisheries Surveys) and on suggestions for a quality assurance framework including data formats for the use in RDBs, socioeconomic data collection requirements and future coordination activities.

During the project implementation contact with two other European projects fishPi2 and STREAM were established because they were working on similar objectives concerning marine recreational fisheries data collection. It was agreed and formally approved that the three projects SECFISH, fishPi2 and STREAM will work on a common document which collates the available information developed from the three projects and aims to make it a reference document for potential end users (i.e. RCGs, COM etc.). This is to help define future definitions of legal requirements to collect such data as part of the EU MAP.

Deliverables of the WP7 include:

- Inventory of ICES WGRFS recreational fisheries data collection and the associated quality control (M6);
- Assessment of socioeconomic data collection with marine recreational fisheries surveys (M10);
- Report on the main outputs of ICES WGRFS and on suggestions for a quality assurance framework including data formats for the use in RDBs, socioeconomic data collection requirements and future coordination activities.

There was debate amongst the group about the collection of recreational data and the purpose of the data collection. Central to this was the question about its connection to fisheries management and its use in examining local coastal communities. It was felt amongst the group that these types of data collection should not be collected on a regular basis while others argued that it would be useful for estimating bag limits and estimating stock abundance.

The SECFISH report highlighted some of these concerns stating that 'In designing an economic data collection programme, it is important to identify the end use of the data and

then the methodology can be developed'. SECFISH recommends as a first step to focus on the collection of trip expenditure data to describe the economic contributions to coastal communities from expenditures by recreational anglers. To collect this type of information, different survey methods can be used such as in-person angler intercept surveys, mail surveys, telephone surveys, or a combination of these. It may be possible to collect expenditure from anglers alongside existing surveys done annually, but then carry out more detailed survey every 5 years to assess marginal values and impacts of changes in fish stocks. Information on social/societal benefits of recreational fishing can also be gathered through existing or bespoke surveys at intervals of several years.

Recommendations

1.1 PGECON Recommends accepting the conclusions from the SECFISH project where appropriate. It was also agreed to share the deliverables publicly on the DCF website.

From the discussions it was decided that several of the WP could have follow up work. Specifically work under WP2, WP3, and WP4 was suggested.

- 1.2 WP2 Harmonization of methodologies for sampling design and estimation methods for fleet and aquaculture economic data collection. It was agreed that each MS should try to follow the suggested procedure. MS experience with the handbook can be presented at PGECON 2020. A Quality Assurance Framework (QAF) subgroup workshop should take place to define the process of quality assessment and assurance and revise the guidelines of the methodological report (with reference to the Handbook). Then as outcome, PGECON could provide recommendations and guidelines to AR evaluation EWG how to improve quality evaluation of DCF data and to complement the currently existing quality evaluation procedures.
- **1.3** WP3 Development and implementation of common methodologies to disaggregate economic variables by activity and area. It was suggested to hold a second workshop on disaggregation of economic variables to complete follow up work from the workshop at this meeting.
- **1.4** WP4 Methodologies for estimation of intangible assets in EU fisheries. It was agreed that the work from this work package should be incorporated into the planned PGECON workshop on PIM method that is planned for October 2019.
- **1.5** WP5 Origin and sources of raw material in the EU seafood processing industry. PGECON recommends that the collection of raw material should remain optional and should be carried out as planned in the national work plan. If collected, the raw material data can be included in the national chapter of Economic Report on the EU processing industry.

ToR 1 Workshop WP3 - Rtools- developed under SECFISH

Objectives

As the ToR stated 'An opportunity will be provided to have MS use the disaggregation R-tools. Prior to the meeting the result of WP-3 will be circulated with the case studies and the developed R-code(s). MS will be asked to bring data with them to work up at the tutorial.'

Prior to the meeting guidelines to the disaggregation tool were circulated to the meeting attendees (<u>Annex III</u>).

Achievements

Participants in the workshop included; Isabella Bitetto (chairing), Loretta Malvarosa, Irina Jakovleva, Jörg Berkenhagen, Emil Kuzebski, Brian Burke, Hans Van Oostenbrugge (partly), Andrius Linauskas, Angelos Liontakis, Katrien Verlé.

The main aim of this session was to present the Rtool developed under SECFISH WP3 for the disaggregation of costs at métier level and to train people on how to use the Routine scripts.

The main results of this WP were presented in plenary the first day by Isabella Bitetto (Coispa), who developed the tool under the SECFISH project. Explanatory documents needed for testing the Routine were shown to the attendees and available in the ftp of PGECON. During the workshop the Tool was explained in more detail. The different available scripts were presented based on a dummy dataset.

The methodology was described according to the main phases:

- Phase 1: individual vessel data are used to derive the correlations between variable costs and transversal variables (this phase could only be carried out by the MS, because primary individual vessel data are required);
- Phase 2: the results of the previous phase and the official time series of costs by fleet segment and métier are used to disaggregate the costs and validate them (this phase could be run by any end-user, given that the 3 needed inputs are provided by the MS).



Figure 1 Flowchart of Rtools-Secfish.

Phase 1

Input files

First, the content of the input files needed for running the Routine were explained. To run the script, 7 input files are needed:

- 1. Capacity: where the information about each vessel (KW, GT, LoA, etc...) is stored;
- 2. Costs: where the fuel costs, fuel consumption, maintenance costs and other variable costs are stored;
- 3. Effort: association trip-total hours;
- 4. Landings: association trip-landing and related revenue;
- 5. Operations: association fishing operation-number of fishing hours by métier and division;
- 6. OperID: association operation-trip; and
- 7. Trip: association trip-vessel.

The content of the files is well explained in the document provided in the input preparation file. During the explanation of the content of the files, it emerged that it would be beneficial to also visually show the link among the files and during the session the scheme detailed in Figure 2 was prepared.



Figure 2 Schema for SECFISH R tool.

Running the analyses in R

R-Studio is the most appropriate version, recalling R version 3.5.1 (tested also on 3.5.3 and 3.1.3)

The output of the Routine was explained based on the dummy dataset in terms of:

- Preliminary checks
- Simple linear regression
- GLM

The importance of the threshold to be used was clarified, especially thr_cum, defining which métiers are included in the GLM analysis. It was clarified that the input in terms of effort could be filled in with variables other than hours or days. Nevertheless, one needs to bear in mind that the variable used as input for effort at sample level should be the same used in the next step for disaggregation (at aggregated level by metier). Consistency over the different input files is key. It must be noted that the effort variable selected could be available also through the FDI data call that also provides a link to DCF/AER fleet segments to use the results for phase 2.

Phase 2

In phase 2 of the analysis, the glm results from phase 1 are used in combination with available fishing activity data to disaggregate the costs.

Input files

For phase 2, the following input files are needed:

• Costs_by_FS.csv

- Effort_Rev_metier.csv
- FS_MET.csv

This information can be taken from the Annual Economic Report and the Fisheries Dependent Information (FDI) Report. Furthermore, FS_MET.csv uses data output from Phase 1. In the option of this file you need to specify which model needs to be used: additive or multiplicative.

Looking at the result of the GLM analysis, data need to be manually inserted in the FS_MET.csv. If métier is significant and the combination of métier and effort is not significant the additive model is chosen. More information on the choice of the model is provided in the report for deliverable SECFISH D 3.2. During the explanation of the content of the files, it emerged that it would be beneficial to also visually show the link among the files (Figure 3).



Figure 3 Links amongst files

Running the analyses in R

- Disaggregation of the costs
- Consistency checks
- Constrained regression

The main output is a file with the disaggregated costs (Costs_disaggregated.csv). If the MS provide the data in FS_MET.csv (output from phase 1), the disaggregation of the cost (phase 2) can be conducted by any end user without the need of confidential vessel data.

Consistency checks can also be conducted. For example, with a threshold of 80%, we expect an absolute difference of about 20%/30%. In the case of high discrepancies between costs by fleet segment and by métier, an additional script was developed to carry out a constrained linear regression analysis. This script allows to carry out a multiple regression based on individual vessel data, adding a constraint to the slopes of the regression by métier. This constraint can be set according to other source of information or using expert knowledge.

MS test cases

After getting familiar with R, Rstudio and the dummy dataset, Germany, Lithuania, Poland, Belgium and Ireland Belgium ran the scripts based on their own dataset. Assistance was available and preliminary results were discussed especially for phase 1. However, there was not enough time to really explore the disaggregation of costs scripts with own data (phase 2).

Conclusions from workshop

- 1. For MS wanting to try the tool, it may be useful in a first instance to run the analysis based on the dummy dataset to see if the R-scripts run without errors. After this it is only a matter of substituting the input files with files with their own data, using the same structure and format as the dummy dataset.
- 2. It is advisable to hold a second workshop to run Phase 2 more in depth and focus where possible on a fishery, or fishery segments, in different regions. Participants should prepare their data for this workshop and go through the user manual. If time is a constraining factor, they may also already go through phase 1. Otherwise a recap on phase 1 remains useful.
- 3. More exploration is necessary for analyses on passive gears as most case studies considered active gears. The analysis for passive gears is less straightforward as effort using passive gear has different implications on the cost structure than effort using active gear. It may be more relevant to include other variables, e.g. number of trips. Therefore, more test cases on passive gears are needed to verify results of the current tool as well as to explore the inclusion of other effort measures.
- 4. Current availability of data for small scale fisheries might be a limitation to implement this tool, as most of these vessels are not subject to the logbook obligation, thus information on effort is limited. This also needs to be further investigated.
- 5. It could be useful to do an exploratory regional analysis with comparable metiers. For example, include data for one year and pool comparable beam trawlers such as TBB_DEF_70-99 of the Danish, German, Belgian, UK and Dutch fleet. This would increase the number of observations and remove the necessity of adding a "Year" and "Vessel" effect. This could be done at the next PGECON. However, for such an analysis it will be important to include comparable groups. This may not be feasible for all regions or métiers. It was demonstrated in the Workshop on Metiers (Copenhagen 2018) that interpretations of there can be large variations in métier "regional (https://datacollection.jrc.ec.europa.eu/docs/other-meetings). Work on metiers" needs to be followed up. In the 2018 workshop on Metier issues a public repository for storing documentation of procedures used by MS to assign metiers to transversal data, some reference lists, scripts and metier descriptions were recommended. It was concluded that a GitHub site under ICES RCG site is an easy and

flexible solution for setting up a public repository and administer for group members (<u>https://github.com/ices-eg/RCGs/tree/master/Metiers</u>).

- 6. It was observed that the number of métiers is rather high, thus resulting in low numbers of observations by métier. The métier is basically a proxy for a certain fishing activity with a distinct cost structure. Therefore, métiers with apparent similar cost structures (e.g. the same combination of gear and mesh size, but different target species) could be merged to increase the number of observations.
- 7. In some cases, the métier appeared to be insufficient to characterize an activity with homogeneous cost structure as the same métier referred to completely different fisheries. The difference was in the region where the fishery took place. Therefore, in the future regional aspects should also be included in the analysis to investigate potential differences. The existing input data contain sufficient information to address regional aspects through the variable "division". To not lower the sample size too far several divisions might be grouped, e.g. "Baltic Sea" or "North Sea".
- 8. It was observed that in some MS it is difficult to access both individual cost data and individual vessel data, as institutions involved in economic data collection doesn't have full access to the primary fleet activity data, which would be a prerequisite to run phase 1 of the procedure.

ToR 2 - PGECON Governance and Rules of Procedure

Objectives

The aim of this ToR was to give an update on the decision process on PGECON Status and a discussion on the Rules of Procedure that PGECON could adopt. Emmet Jackson gave a summary of the work conducted to date on this ToR which was followed by input from Annette Hurrelmann off Unit C.3 - Scientific Advice and Data Collection (DG Maritime Affairs and Fisheries).

At the 2018 PGECON meeting is was recommended that there should be further consultation with MS before a decision could be made on the future status of PGECON. For consultation, PGECON 2018 provided a summary of the above options and communicated to every MS National Correspondents regarding the aim and main points of changing status. Information on PGECON status and comments on this were also provided and sought through the SECFISH WP1 questionnaire.

Through the process of the SECFISH questionnaire MS were asked if they felt that PGECON should change its status into a pan-European Regional Coordination Group to gauge the general feeling about this status change. Overall, 52% agreed that PGECON should become, or have the same status, as an RCG. Of the remaining, 41% took a neutral position and 7% disagreed.

PGECON 2018 also recommended that MS should indicate their position regarding the future of PGECON legal status (continuation of PGECON as subgroup of the Commission Expert Working Group on data collection or its evolution into an RCG). Feedback from each MS should be addressed to PGECON chairs before the end of 2018, through MS National Correspondents (NC), while the future PGECON Status will be confirmed at the next NC meeting.

Regardless of whether PGECON becomes an RCG or remains a subgroup of the Commission Expert Working Group on data collection, it is recommended to develop rules of procedure covering a description of working methods and decision-making processes as well as general governance aspects.

Achievements

A discussion on the evolution of PGECON took place.

Discussion on recommendations which shall become 'obligations' will require the presence of end users, as a legally binding recommendation (which will be included in the regulation) will require end user feedback, if no end user is in attendance, a recommendation/new obligation could be based only on what the group thinks are end user needs. From the other RCGs text provided by them indicated that 'The RCG may give non-binding recommendations only. The aim of the recommendation is to orientate further work to be carried out on all issues related to the scope of the Regulation 2017/1004. The recommendations should provide, but are not limited to, clear and understandable standalone guidance, guidelines or best practices on the recommended work to be carried out, its justification and objectives, a foreseen time frame for fulfilment and to the extent possible, person(s) or institution(s) responsible for the follow up of such recommendation.' A discussion also took place on what a Work Plan would consist of. A pan-regional WP should include obligations to ascertain homogeneity with respect to methodologies used by MS. The handbook drafted by SECFISH project could be the document used by members states to align their methodologies towards data collection with the latter.

There is a need to re-open the discussion of PGECON at the next National Correspondents meeting as an item on their agenda.

- The document sent to National Correspondents after PGECON 2018 needs to be revisited.
- To facilitate their decision, clarification on what the new status would entail is needed so that NCs have a better understanding on how PGECON will operate and how it will affect MS work plans and/or methodologies.

Recommendations

PGECON status:

- PGECON is formally a subgroup of the COM Expert Working Group on data collection.
- During the pre-consultation of MS on the issue of whether PGECON should change its status to that of an RCG, it turned out that the process could not be supported by all MS. As the position of the DG MARE legal unit is that PGECON would require consensus/unanimity from MS to become an RCG (even if there would be a broader interpretation of the term "region" in Art 9, point 2 of the DCF Regulation 2017/1004 in the sense in which this could be extended to a pan-regional interpretation). As there is no unanimity, this conversion is not possible at this point in time.
- At PGECON 2019 is was agreed that a discussing regarding PGECON's change of status to that of an RCG should take place at the National Correspondents for data collection meeting of 6/09/2019 in Brussels, DG MARE is ready to put the point on the agenda. PGECON chairs should attend this meeting to explain the process and make the case of the group becoming an RCG.

Rules of Procedure:

• As PGECON is formally a subgroup of the COM Expert Working Group on data collection, the Rules of Procedure (RoP) of this group also apply to PGECON.

However, PGECON can adopt own rules of procedure if they do not contravene with the RoPs of the COM Expert Working Group.

• The draft RoPs for PGECON elaborated during the meeting should be checked with DG MARE to confirm that they do not contravene with the RoPs of the COM Expert Working Group. The draft RoP, as collectively edited, during PGECON, is in Annex IV. It is hoped that this can then be adopted at PGECON 2020.

Specifically:

- **2.1** PGECON status should be placed as an agenda point on the National Coordination Meeting to discuss and decide if PGECON should have same status as the RCGs.
- **2.2** Following recommendations from PGECON 2018 a draft <u>RoP</u> was created. This was reviewed and updated during PGECON 2019 and should be reviewed by DG MARE. The final draft, regardless of PGECON status, should be adopted at PGECON 2020.

ToR 3 - Freshwater Aquaculture in Maritime and Landlocked Countries

Objectives

The ToR entailed the following objectives:

- Exchange of experiences: Reports from member states on:
 - o current mandatory/voluntary freshwater data collection
 - status quo of freshwater pilot studies
- Discussion of methodical / technical aspects: Specific challenges of data collection in freshwater aquaculture
 - Environmental indicators and their data collection
 - MSs' experience on annual reporting
 - Separation between aquaculture and other activities
 - Small scale part time aquaculture
 - Keeping thresholds for aquaculture?
- Further topics
 - Share questionnaires
 - ToR for PGECON 2020

To date, the focus of previous PGECON meetings concentrated more on maritime fisheries and aquaculture. The aim of this ToR was the exchange of experiences regarding current mandatory/voluntary freshwater data collection, the exchange on the status quo of freshwater aquaculture pilot studies, as well as a discussion on methodological/technical aspects regarding specific challenges of data collection in freshwater aquaculture.

The topic of freshwater aquaculture concerns both landlocked and marine countries – currently it is exclusively marine countries, which collect freshwater aquaculture data (cf. Economic Report of the EU Aquaculture sector). Evidently, there are plenty of parallels between marine and freshwater aquaculture. Nevertheless, it is important to open the discussion on the sector's situation and specific challenges when it comes to data collection.

Achievements

During the ToR many MS gave presentation on their aquaculture data collection. These are collated in <u>Annex ToR 3.</u>

Reports from the member states, sharing of expertise

During a round table, all MS present gave a short overview of their freshwater aquaculture data collection to create a common basis for discussion (<u>Annex V</u>). The data collection for aquaculture is, in general, very diverse between Member States. From this discussion a sample of interesting good practices and challenges, from MSs, were evident.

- Good practice: e.g. comprehensive data collection through combination of questionnaire/form and legal obligation; electronic survey and use of company code; and cooperation with POs and benchmark reports as incentives for farmers.
- Major challenges: e.g. in general most MS experience low and declining survey response rates; separation by techniques and main/side activities; low response rates especially for environmental variables. This is due, in part, to unclear data collection questions caused by a lack of definition as well as confidentiality concerns.
- Tobias Lasner from <u>Germany</u> gave a presentation on a pilot study on the methodology of the typical farm approach, which in combination with secondary data and additional surveys for verification is an interesting concept especially for MS without any yet established data collection. The objective of the method is to build up a small purpose sample of representative aquaculture farms. These "typical" farms combine production factors in a common way. The network of representative aquaculture farms follows the tradition of established agricultural economic farm networks like OECD Farm-level Analysis Network or the EU the Farm Accountancy Data Network (FADN) but is less laborious.

Environmental variables and their data collection

Input: Matt Elliot (DCF UK national correspondent) presented on the EU MAP revision for aquaculture and environmental variables– <u>EUMAP Revision</u>.

After a broad discussion about environmental variables and their usefulness, "medicines (g)" and "mortalities (%)" are the only remaining indicators of environmental sustainability in DCF data collection. Considering, that only 2-3 MS provided data on environmental variables for the last aquaculture data call (September 2018) and there is uncertainty with how to deal with those indicators in the economic report on EU aquaculture the demand for the environmental variables is questioned. A question was raised about political objective behind this collection of these data. It was muted that these data could be used to support EMFF funding to establish a compensation scheme for aquaculture enterprises in case of loss of livestock due to deceases or predation. Some federal states in Austria and Germany have introduced national compensation payments for fish loss caused by predators like otters and cormorants.

Furthermore, there is a lack of a sufficient definition on these variables. Both environmental variables are currently too general, in particular "mortality". There needs to be clarity if this refers to mortality based on numbers (of individuals) or on weight (kg). Regarding "medicine", it is unclear if this refers to grams of the product or of active ingredients, or both. This in fact hinders MS collecting data at enterprises, as it is simply unclear to them what to collect and report. Furthermore, a sound proposal on how to measure medicine is needed (e.g. veterinary data or scientific studies due to possible concerns of misreporting by

enterprises). The collection of medicines is a sensitive topic and if enterprises lose their trust in data collators they will most likely not report anything in the future.

If "mortality" is kept as a variable, a clear definition is needed, as well as further segregation between different causes of mortality to efficiently target fish loss. The potential response rate in case of mortality data might be sufficient, because the question meets the interest of fish farmers. For example, in Greece, where five different mortality categories are established, the response rate is quite high. On the other hand, the perspectives of the farmers are strongly biased (e.g. loss due to predators vs. mismanagement) and its reliability is doubted. To avoid misreporting, a sound methodology regarding the use of non-enterprise data should be worked out and be applied, e.g. scientific studies. On the other side, the effort coming along with scientific studies to measure the exact impact of predators on mortality and a calculation of objective compensation payments might be inappropriately high compared to more a practical (but unscientific) compensation payment system, which bases on affirmations. Drought was also mentioned as a growing cause of mortality.

The discussion shows the need for more work with experts on the topics. If DG MARE as the end-user identifies a reasonable demand for data collection of "medicines" and "mortalities", PGECON recommends organising a sub-group on that issue. The sub-group should clarify, inter alia, which environmental data is already available due to other regulations (e.g. 2006/88/EG down laying rules on hygienics and health protection for aquaculture) in the MS. This proposal has already been made in PGECON report 2017, but there has not been any progress. The clearing of the underlying reasons for collecting and afterwards the establishment of a subgroup or a workshop to work on the questions is a very important task before the data call in 2020 (in case environmental data are part of the data call). There is the need for participation by DG MARE and STECF, and to have a contact person on these issues.

If the end-user is undecided regarding the usefulness of the environmental variables, even after evaluation of the pilot studies (e.g. from DEU, GBR, MLT, AUT), PGECON recommends deleting the variables "mortality" and "medicine" from future data collection.

However, data on the number of recirculating aquaculture systems, extensive operating aquaculture farms (species: carp; fish farming technique: ponds) and organic aquaculture is already collected under EU Regulation Nr. 762/2008 and Nr. 834/2007 in all MS and provided to Eurostat. In particular, the last two can be seen as undisputed providers of ecosystem services according to scientific literature. Their share in the total production might be a meaningful indicator for environmental sustainability.

Experiences on annual reporting

Questions were raised regarding the feedback MS received from the European Commission regarding the AR. Some MS see the relation between the cause of feedback and the (length, intensity of) feedback itself as unbalanced.

The AR is a legal requested document based on "*REGULATION 1380/2013 Common Fisheries Policy*" which require the achievements based on the "*COM Implementing Decision (EU) 2016/1251 Table 7 and*

9" where are listed all requested variables for the collection and transmission in aquaculture. The *Aquaculture data call* require the same list of variables by segments with quality indicators. This information provides an overview about data collection implementation in MS. The system of the reporting should be automatized soon, but it still should include all parameters from the *COM* 2016/1251 Table 7 and 9. The "database approach" for the information flow between IT systems in relation to Annual Reports, DT and National Work Plans was suggested during several meetings. The system could be based on the information submitted in the frame of Economic data calls to the JRC database. More detailed information about data transmission, 'database approach' and AR improvements is provided in following reports: STECF 18-18; STECF 18-10; STECF 17-19; STECF 17-17; STECF 17-11.

The group also discussed a possibility to merge section "1. Description of methodologies used to choose the different sources of data" and "2. Description of methodologies used to choose the different types of data collection" should be merged to one section. However, this was not agreed by all with others pointing out that according to the AR rules the sections are moved to AR from WP template COM 2016/1701. The two sections have different aims. In the "1. Description of methodologies used to choose the different sources of data" MS should provide the information about the used data sources. For example: data base, accounts, declarations, questionnaires etc. In the "2. Description of methodologies used to choose the different types of data collection" MS should provide an explanation on the data collection scheme and estimation method (Census; Probability sample survey; Non-probability sample survey; Indirect survey). Sections also linked to the appropriate columns in the Table 3B.

What kind of aim we would like to rich, if we recommend merging these two different sections in AR and how it should be represented in WP templates?

Separation between aquaculture and other activities

In some MS, the aquaculture sector is characterised by enterprises, where aquaculture is one branch out of several activities (forestry, agriculture, gastronomy etc.). These enterprises sometimes contribute a considerable share to the MS overall aquaculture production and it might make sense to consider it in data collection. It was stated in the PGECON Workshop 2015 report (Gdynia) that in case of enterprises whose aquaculture production is not the primary activity, but which contribute a significant share of production to the MS/segment, it is logical to include them in the population. MS should operate a mechanism to disaggregate the aquaculture component. Here, the separation between aquaculture and other activities is most important, but not always feasible.

Due to official lack of data on main activity, Austria, for example, in its pilot study filters primary aquaculture production (not filleted or further processed) from all activities. In consequence, it is a challenge to allocate some costs positions (fix costs and investments) to single aquaculture enterprise level, if the company interviewed via questionnaire is vertical integrated or diversified. For DEU, GRC, ESP and MLT a similar situation is reported (especially if a company has a ca. 50/50 share of primary production and processing).

While it is stated that GRC government is interested in data on aquaculture site (unit) level, PGECON recommends retaining data collection on enterprise level, which is simultaneously the base for financial accountancy, however MS are free to collect information on production unit level in case of specific national needs.

Small-scale part-time aquaculture

According to Implementing Decision 2016/1251, aquaculture as a side/secondary activity (as part-time, additional business) is not part of the obligatory population. Nevertheless, if the aquaculture register is the base of identifying the population, without any information about the scales, small-scale part-time enterprises are automatically included in the survey. That is, e.g., the case in BGR, AUT and DEU. It was argued that for small producers a data collection survey is a disproportionate effort. There was also the consideration to split data collection of freshwater aquaculture into the two groups of large MS and small MS, as they face different structures of the sector as well as different challenges.

The discussion concluded that, in harmony with DCF, the methodology of data collection regarding small-scale part-time aquaculture enterprises (and the definition of the sample frame for later projection on sector level) should be voluntary. Aquaculture sectors in EU MS are very diverse. There is not one solution fitting all and MS should define their own methods to deal with their specific situation regarding small-scale aquaculture. According to the national circumstances MS should decide if small-scale part-time enterprises should be considered in data collection and how to deal with other issues, such as other sources of income, and costs allocation between aquaculture and other activities.

Separation between techniques

It was stated in the discussion that in case of allocation of enterprise economic activity to techniques the separation between techniques (Table 9 of Implementing Decision 2016/1251) does not always make sense, especially if many enterprises have mixed techniques. If there are many enterprises with mixed techniques, this will result in an over-/underestimation of the different techniques. This happens in both cases: if data are assigned to the dominant production technique as well as in case of distribution according to the techniques' share of production value (high value does not necessarily mean high costs, e.g. in the case of hatcheries within the enterprise). A separation of all variables between production techniques within one enterprise may be a disproportionate effort. Further discussion and investigation of this issue was too time consuming within the PGECON session, however it needs further and broader consideration.

Keeping thresholds for aquaculture?

Currently, some MS do not collect (freshwater) aquaculture data as there is no need due to the threshold introduced in EUMAP and as there would not be enough financial resources to implement data collection.

Removing the existing threshold for aquaculture data collection would mean having to dedicate a lot of funding to the collection of data of very little importance compared to the overall aquaculture sector. Furthermore, the comprehensive data collection without any threshold would mean a great additional (financial) effort for those MS that are currently excluded. In the case of removing thresholds, the financing must be guaranteed by the European Commission.

Sharing questionnaires

It was agreed that MS should have the possibility to upload their questionnaire to the FTP to share it. A sub-folder has been created within the ToR 3-folder.

Recommendations

Reports from the Member States, sharing of expertise

- So far, there has been less attention given to aquaculture at PGECON when compared to fisheries. It is recommended to specifically consider (marine + freshwater) aquaculture sessions in the PGECON meetings' agenda, separated from fisheries.
- A workshop on the definition of environmental variables for the aquaculture data collection is recommended before the data call in 2020.

Environmental indicators and their data collection

- PGECON recommends asking DG MARE, if there is still a need for the variables "medicines (g)" and "mortalities (%)" and to explain the end users' needs if any.
- If there is no sufficient justification regarding the usefulness of the environmental variables, PGECON recommends deleting the variables "mortality" and "medicine" from future data collection.
- In case the end-users provide sound justification to retain environmental variables, PGECON recommends the establishment of a sub-group, to clarify which environmental data is already available due to other regulations (e.g. 2006/88/EG discuss the definitions) as well as to clarify the definitions of the two environmental variables before the aquaculture data call in 2020. Further, the cause of mortality should be included and analysed (predators, flood, disease, natural etc.), and best practice of data collection is to be worked out (survey, veterinary data, scientific study).
- PGECON recommends, in line with STECF proposals, to further clarify the following issues in a workshop before the aquaculture data call in 2020:
 - Transformation/translation between DCF and EUMAP.
 - Dealing with confidentiality issues.
 - Consistency of the segmentation practices between countries.
 - Identification of relevant and irrelevant production techniques/segments.
 - In case of data-submission:
 - The possibility of reporting data from all MS within the format of EUMAP from either 2015 or 2016 and forward to have identical years for the data break between programs.
 - The possibility of changing the format on segmentation to only showing relevant segments.
 - The possibility of, when reporting the segments, leaving lines without any data "empty".
 - The possibility of simplification (e.g., in the current format MS must report zeros in all lines (up to 150 lines) even though they do not have any data for these segmentation lines).

Experiences on annual reporting

• Provide a simple manual on how to use the templates for newcomers and for new formats.

Separation between aquaculture and other activities

- Data collection should retain on enterprise level, which is simultaneously the base for financial accountancy, however MS are free to collect information on production unit level in case of specific national needs.
- Separation between aquaculture and other activities should be investigated by relevant MS and in a specific ToR during PGECON 2020.

Small-scale part-time aquaculture

- Data for the aquaculture sector can be collected if described in the national program.
- As aquaculture sectors are most diverse, MS should decide on their own, how to deal best with their data collection in case of small-scale part-time enterprises.

Separation between techniques

• Allocation criteria of enterprise economic activity to techniques and species should be investigated in a specific ToR during PGECON 2020.

Keeping thresholds for aquaculture?

• PGECON recommends retaining the exiting thresholds for aquaculture data collection as a minimum baseline, as well as the possibility of voluntary data collection. If this is removed the European Commission should provide more resources for additional data collection efforts. (See ToR 6 for more details).

Specifically:

3.1 PGECON should specifically consider (marine + freshwater) aquaculture sessions in the PGECON meetings' agenda, separated from fisheries.

3.2 A workshop on aquaculture data collection is recommended before the data call in 2020 to discuss a range of issues, including, and not limited to, environmental variables, segmentation, data reporting structure etc. All of these are listed in the extended recommendation above.

ToR 4. PGECON Workshop Results 2019

Overview

Natacha Carvalho moderated ToR4 and presented the main outcomes from the PGECON workshop (WS) on social variables and led a discussion on a review of the 2019 socioeconomic data call, which took place in Athens, Greece in 19-22 November 2018.

Specifically, the terms of reference were:

- Present the results from the DCF/PGECON Workshop on Social variables and ensuring the smooth transition between data collection regulations (DCF to EUMAP) will be presented. This will be followed with a discussion on lessons learned from the 2019 Fisheries Data Call, AER End-users and areas for improvement.
- Suggestions and recommendations for future data collection of social variables and data calls (processing and aquaculture).

These Tor were developed to include:

- Considering the changes in the EU-MAP for economic and social data and evaluate for the new and slightly altered economic variables, to what extent the applied definitions and methodologies are harmonised across MS or regions.
- Define how the social data are to be analysed and presented.
- Discuss and agree on how to report the social data, considering:
 - a) use of stratification;
 - b) timing of data collection;
 - c) possibility to report combined variables;
 - d) closed-ended responses for data reporting and use of the 'unknown' category
 - e) the need for and potential methods to raise social data from sample to population
- Discuss and agree the reporting structure for the data call.

Achievements

The presentation reviewed WS activities, the main results and conclusions as well as presenting WS recommendation to be approved in PGECON 2019 meeting.

PGECON agreed with the conclusion, that FTE national should continue to be requested as an economic variable (voluntary in the 2019 data call) to guarantee time-series in the AER. In the EUMAP, FTE national was moved from economic variables to the social variables and therefore was not obligatory requested in the AER.

Based on the WS recommendation 1 of ToR1, moderator presented the '<u>Guidance</u> <u>Document'</u>, which was published on the JRC/DCF web site. The document contains definitions and proposed methodologies, which were revised during the workshop. Based on the workshop results, PGECON 2019 suggests specifying "price per commercial species" in the EUMAP as "Live weight".

WS evaluated to what extent the applied definitions and methodologies, listed in Guidance Document, are harmonized across MS and if the new definitions will be used and whether these could be applied for the entire time-series. It was concluded that for the most part no major differences between the data submitted under the DCF and EU MAP is expected, i.e., time-series will be maintained. However, for the new EU MAP variables, such as unpaid labour and hours worked, most MS will only be able to provide data from 2017 onwards. The WS recommended with some limitations, that MS could, if they wished, calculate EUMAP variables back to 2008 where possible, for example operating subsidies and subsidies on investments should be available and possible to report for the entire timeseries. In the case when methodology to calculate variables has changed in EUMAP, for example days at sea (for SSC), recalculation of entire timeseries is also required.

PGECON discussed the WS proposals to clarify/change economic variables of fishing fleet. One of the recommendations were to rename Engaged crew to Paid labour and accordingly to update definition that it will contain only paid workers, whereas unpaid labour is anyway asked separately in the same data call. Group agreed to the proposed changes as currently Engaged crew includes paid and unpaid labour and MS are repetitively asked to provide unpaid labour. In the EU MAP revision ToR, it was decided that 'labour' should be split into paid and unpaid. Concerning collection of employment data for the fleet some MS raised the concerns about issues in collecting new indicator "Hours worked" as well as estimation of FTE based on hours worked. This discussion was forwarded to ToR 6 of PGECON 2019.

Another proposal was to change Long/short term debt to Gross debt and accordingly to update the definition. As well as to change Investments, net to Gross investments; update definition to 'purchases minus sales'. Concerning economic analysis, GTseaday and kWseaday are more appropriate indicators for economic analyses than GTfishingdays and kWfishingdays. Moderator highlighted, that the methodology for estimating value of quota and other fishing rights should be updated when results from the SECFISH project become available (2019).

DGMARE presented the main objectives of the CFP regarding promotion of social sustainability and the social importance of the fisheries sector as well as needs of comprehensive data and scientific analysis on the social aspects of the CFP. The first outcomes from EWG 19-03 on Social data in the EU Fisheries Sector, which took place in

Ispra, during 08-12 of April 2019 were presented to PGECON. EWG 19-03 produced standalone chapter (separate from the whole report, in the annex) in the 2019 AER of the fishing fleet.

The WS also discussed and agreed on how to report social data in 2019 and future data calls taking into consideration such aspects as the flexibility of the template, levels of stratification, population for the social data call as well as the timing and methodologies of the data collection. PGECON recommended that the population for the social data call should be the same as the reported employment in the fleet and aquaculture data calls (i.e., all employment for the whole year). The structure of the social variables data call, was drafted in the WS, considering recommendations from PGECON 2017.

Feedback from MS

During the meeting MS were asked to complete a questionnaire to collect feedback on the fishery socio-economic data call (<u>Annex VII</u>). MS were also given an opportunity to give comments. The following comments were received from eight MS.

Economic data / 2019 data call

1. Information / guidelines (definitions and methodologies) for requested variables

- The website that houses the information on variables could be laid out better.
- The information was useful; however, it was unclear why TOTKWSEADAYS and TOTGTSEADAYS did not belong to the template map_ms.
- The documents for the definitions and methodology should be stored on Data collection webpage in an easily accessible place. If changes are made in the documents for the definitions and methodology, experts should be notified about the changes and about the legal base for these changes.
- 2. Data reporting templates
 - Unclear what was the benefit of changing the format compared to previous years. Names of files were more informative in the past.
 - The previous templates were more user friendly as it was easier to detect errors (on total and fs levels). We spent a lot of time having to rewrite our queries to fit to the new format. Not everything seemed as logical.
 - MS prefer Excel sheets to csv files.
- 3. Tableau Online tool data visualisation and data checks
 - Has improved (e.g. for selecting multiple items).
 - Sometimes a bit slow, but overall a really good tool.

- Tableau is a handy tool and with experience over the years it also increases the ease of use.
- Some additional checks prior to the meeting may have been useful.

Social data / 2019 data call

5. Information / guidelines (definitions and methodologies) for requested variables

- No comments.
- 6. Data reporting templates
 - More examples on how to fill in the template would be nice.
 - Not easy to fill in and slightly confusing.
- 7. Data analysis templates
 - Unaware of what these are.
 - Did not use them.

8. Variables requested / sample to population raising

- The age class chosen are useless to identify social phenomena like social mobility or ageing.
- Smaller classes (10 year) are needed.
- Some MS had issues with the feedback questions and the use of the word adequate and did not complete this section.

9. Minimum aggregation and stratification levels requested (SSF, LSF, DWF)

• No comments.

10. Additional aggregation and stratification levels

- Not sure if further aggregation/stratification levels in reporting bring any added value.
- Stratification of status only between unpaid and employee is not suitable.
- Position on board/on land would be useful: Crew (skipper, deckhand, sailor...), net maker or questions about the household (single earner (yes/no) (adults/children in the household) (work of the partner: involved in fisheries (supplementary work), not involved in fisheries... would be necessary to locate the social status of the interviewees.
- Will be feasible for the next data call, was not feasible this data call for administrative reasons

Economic and social 2019 data call: data submission

11. DV Tool

- Some MS did not use it.
- Took a little effort to get used to it, but it was useful.

- In case of Slovenia the DV tool does not work properly. Feedback from DV tool was: "Error creating parser for file map_fsfao_1550648268410.csv".
- Often the DV tool would check files and give an indication that they were good but then when it came to upload the files they were not accepted.

11b. Was the DV Tool Useful

• Of those MS that completed the feedback 75% indicated that the DV tool was useful.

12. Data uploading facility

- If there is an error, it doesn't tell why there is an error which makes it hard to correct.
- Did not use it, my colleague told me that it was too complicated.
- Introducing commas as separators caused unnecessary problems.
- The previous uploading facility was more user-friendly and less messy.

13. Regarding the data calls, would you prefer:

- MS were asked if the social data to be submitted in parallel with the economic data calls, i.e., fleet social data with fleet economic data / aquaculture social with aquaculture economic / fish processing social with fish processing economic. Of the 8 MS that responded 50% agreed that social data should be submitted in parallel.
- So, conversely 50% of responders indicated that they would prefer one dedicated data-call for social data, i.e., Fleet + Aquaculture + Fish processing sectors.

14. How feasible would it be to collect / provide social data at a more detailed geographical dimension e.g., NUTS 2 soon?

• One responder said it would never be feasible while the majority said it would be possible in 2-3 years with one other MS saying it would be 4-5 years.

Recommendations

During the WS, the group also agreed on the data requirements for the fleet economic and social EUMAP data call, data reporting template, outlined structure and sections for the AER national chapters on the social dimension of the fleet. After the WS, the Guidance Document on economic and social variables for the fleet and aquaculture was updated according to the agreements in WS and was presented in PGECON 2019 for revision.

4.1 The group reviewed amendments in the Guidance Document and agreed to it emphasizing that it should be maintained over time, evolve and should be easily accessible to MS. However, group highlighted that Guidance Document on the definitions and methodologies for Fish processing is still needs to be revised and updated before next year data call.

4.2 PGECON 2019 discussed the procedure how to include new segments with thresholds to report low activity vessels to avoid distortions in performance results. The group agreed that MS can use the GEO indicator in the data call templates to split low activity vessels to include the threshold in next data call.

After the discussion on the need to include new economic indicators, PGECON group concluded that the current list of economic variables is sufficient to fulfil the requirements on the economic analysis in fisheries. However newly introduced social indicators were criticized as being more demographic indicators than social and their usefulness was questioned. Long distance fleet should be defined separately for social variables.

The group discussed the pros and cons of having analysis of social data in parallel sessions with economic report. The advantage of having parallel working groups is that it ensures the coordination and knowledge exchange with economist in the context of socioeconomic performance of fisheries or communities involved in fisheries, aquaculture and fish processing activities. However, disadvantages of having parallel sessions were highlighted from countries with smaller fisheries sectors. Lacking the capacity to have separate experts on social issues and economists, such MS usually involve the same experts which collect social and economic data, thus parallel meetings creates extra burden when one person must prepare both, social and economic chapters. It was strongly felt that this situation should not happen again where an expert is asked to split themselves between two meeting with separate ToRs. It was recommended that.

4.3 STECF EWG meetings on the Annual Economic Report of the EU fisheries and Social data in the EU Fisheries Sector should not be held at the same time, or if they are that experts are not requested to split their time between the meetings.

The group also discussed and agreed to have the separate session in the next PGECON meeting to test the applicability of handbook document, prepared by SECFISH. Regarding methodologies for estimation of fishing rights, prepared by SECFISH, PGECON agreed to include specific ToR to PIM WS, planned in the second half of 2019 to test the applicability of methods and provide the feedback from MS about issues of estimation fishing rights. Issues related to Quality Assurance Framework (QAF) should be considered when handbook applicability will be tested. It could be organized in separate WS in 2020 for QAF incorporation into handbook. Then as outcome, PGECON could provide recommendations and guidelines to AR evaluation EWG how to improve quality evaluation of DCF data and to complement the currently existing quality evaluation procedures (listed under recommendation 1.2).

ToR 5. Processing

Objectives

The initial terms of reference focused on the results from MS who had collected data on weight of raw material (Table 11, (EU) 2016/1251). Specifically, the terms of references listed the following action points.

- 1. MS results from pilot studies
- 2. Discussion of inclusion of these results in the next data call,
- 3. Data call deadlines and future processing STECF Report.

Loretta Malvaros moderated the discussions on fish processing data collections of raw materials (Table 11, (EU) 2016/1251). Two topics were raised concerning data collection deadlines and the collection of raw materials and social variables for fish processing. The revised ToR were as follows:

- 1. Discuss most appropriate dates for next data call
 - Check the release of 2017 data by MS to identify the most appropriate period to guarantee 2017 data coverage.
- 2. Discuss potential inclusion of results of pilot studies on the collection of raw material (if any) and SECFISH main findings.
 - Provide info on pilot studies on the collection of processing raw material data, if any

Achievements

2019 Data Call Timing

A discussion took place focusing on the usual dates of the processing data calls, the dates for STECF EWG and concerns of MS to be able to provide data by the proposed deadline for a report based on 2017 data.

Part of this discussion included a round table check on the release of 2017 data by MS to identify the most appropriate period to guarantee 2017 data coverage. A template document was created with information based on MS's Work plans on processing data collection, and possibility of complying with proposed data call dates for fish processing was checked (<u>Annex VIII</u>). Most MS comply with proposed dates, other MS are in the process of changing data collection processes and will be able to supply data at a later date.

Raw Material Pilot Studies

By analysing data on the status of raw data collection for fish processing by MS, it was noted that most of the pilot studies executed by MS have not provided desirable results, as the

response rates were low or achieved no responses. However, there were also MS who already collect data on raw materials by questionnaires.

A concern was raised about preparing for the processing data call and overlap with other data calls which would put more stress on MS to prepare and upload data on time. There should be a possibility to circulate variable lists and data templates for processing data call earlier for MS to plan data preparation schedules, that would greatly ease data preparation.

During the discussion on the inclusion of results of pilot studies on the collection of raw material in the next EWG fish processing report, it was noted, that as pilot studies cannot be included in data calls due to regulations, working group recommends that every MS could include a special chapter of fish processing raw material data collection which could include a summary of the work that has been done, either pilot studies or survey reports, and any results and other relevant information that the MS has collected.

There was a round table discussion to capture MS experience concerning the collection of raw material data. A summary of these comments is included below.

- Austria do not collect data on raw materials for fish processing. However, as the number of fish processing units in Austria is very low, the results of a survey or pilot study could be unsatisfactory. Therefore, Austria is in favour of raw material data collection remaining voluntary.
- Belgium didn't do a pilot study on the raw material and they are revaluating how they are collecting data on processing. They are thinking about how they can tackle this issue in the future.
- Bulgaria are collecting total quantity of raw material by surveys, with the response rates close to 100%. More detailed data should be voluntary. Social data is also collected by surveys with response rate of 100 %.
- Czech Republic is in the process of preparing data collection on raw materials for fish processing. They are trying to collect data on years 2016, 2017 and preparing to collect data on 2018.
- Croatia is collecting data on raw materials in fish processing for total value and quantity only and is conducting a pilot study on social variables.
- Denmark conducted a pilot study on raw materials for fishing sector through interviews. Through their experience many MS who have tried to collect data have had little luck in collecting the data. The data call should include social data but not for raw material. Social data was done by statistics Denmark for all sectors, they can merge the data, so they can provide it for the processing industry. Can provide data on social variables for fish processing sectors.
- Finland is collecting data on raw materials for fish processing sector by species, every two years. Social variables for fish processing is collected annually. Raw material is by species.
- France has conducted a pilot study on raw materials in fish processing but encountered issues. It is also conducting a pilot study on social variables.
- Germany conducted a pilot study for raw material data collection as part of the SecFish study. The industry was not willing to provide the data.

- Greece is collecting data on socio economics and data on raw materials for fish processing. However, in Greece the law affecting data collection is changing and there may be problems associated with data collection dates. There is census collection for economic, social and raw material. The main problem with processing is assessing the level of parallel activities being conducted by processors.
- Hungary is collecting data on social variables and raw materials (by species, quantities and values) for fishing sector by questionnaires.
- Ireland is not currently collecting data on raw materials for fish processing. They are in the middle of a review on processing data collection and plan to request data on raw material. From early discussions with experts, for the SecFish project, they expect that this data will be difficult to collect.
- Italy conducted a pilot study; however, the response rate was low, and they are looking to the results of the SecFish project and the outcome of this meeting for advice.
- Latvia conducted a pilot study through a survey. However, the response rate (3%) was too low for any meaningful results.
- Lithuania conducted a pilot study for social variables in fish processing sector last year. Raw materials for fish processing (by main species, fresh water or sea) is collected by survey and census.
- Malta are attempting to collect the data. Currently fish processing units are not willing to cooperate on raw materials collection, therefore the pilot study is not having any success. However, Malta is in process of changing the process of collecting data, they should be able to collect more data. Data collection on social data should not be problematic.
- The Netherlands does not collect data on raw materials for fish processing.
- Poland is collecting data on raw materials in fish processing by questioners, census;
- Portugal does not collect processing data.
- Slovenia is collecting data on social variables but has problems with good responses rates. A pilot study on raw materials in fish processing was conducted, however it was unsuccessful, and it was decided to terminate the study
- Sweden is conducting a pilot study for raw materials in processing sector, however is looking into other ways for collecting relevant data;
- The UK conducted a pilot studies on social data collections. Work is also being done on data collection of raw materials for fish processing;

Social Data

The processing data call is expected to also include social data. From the last EWG, 21 MS were collecting fish processing data with the majority of these doing collection on social data. However, it was pointed out that previous discussion of the definition of socio-economic variables focused heavily on fisheries. While there was a recognition that the definitions of the socio-economic variables were intended to be extended to aquaculture and processing there was some confusion if they did indeed extend to processing. There was a long discussion around age structures which are reflected in ToR 6 EU MAP revisions.

Recommendations and Conclusions

- **5.1** Considering the dates of proposed data calls, MSs data collection calendars, dates for EWGs and MS concerns to be able to provide data for a 2019 EWG report based on 2017 data, the group proposed that the date for the fish processing data call should be from mid of October to mid of November 2019. This would result in an EWG meeting in late November/early December. These dates will need to be approved by STECF.
- **5.2** There was a clear indication from the group, supported by the results of WP5 SECFISH, that data collection on weight of raw material per species and origin (Table 11 (EU) 2016/1251) should remain voluntary.

Discussion regarding definitions of existing variables and future variables are included in ToR 6, revision of the new EU MAP.

ToR 6 - Recommendations for the revision of the Multiannual Union Programme

Objectives

Provide comments on the provisions of the EU-MAP and areas where requirements can be clarified/amended or any other concrete point for revision, followed by proper justification of action at EU level taking into consideration following tasks:

- Consider and propose on the basis of input from the RCG's and the recommendations given in the document "Recommendations for the revision of the Multiannual Union Programme for the collection, management and use of data in the fisheries and aquaculture sectors (EU-MAP), priority issues and outstanding questions, October 2018" and the consequences any new data collection may have for the present data collection.
- Assess any new requests from end-users (e.g. STECF-18-18 Report, EWG 19 05) providing scientific advice for the management of the CFP and the consequences any new data collection may have for the present data collection.
- Assess any new additional data collection and consider any related cost implication and the consequences any new data collection may have for the present data collection.
- Based on evaluations propose any changes to the present EU-MAP.

Provide answers to the Specific Questions provided in the report from STECF EWG 18-18 by EU in 'Consultation of RCGs and PGECON on the potential revision of EU-MAP biological data and socio-economic data, December 2018':

- 1. Should the any definitions be clarified in the future EU-MAP (i.e. population for economic data collection for the fleet, for the fish processing etc) or can these clarifications be done in PGECON recommendations and methodologies? For action at EU level, please justify.
- 2. Should the Fishing fleet segmentation in Table 5B be revised? What are the concrete points for revision (to be added / removed)?
- 3. Should the segmentation on aquaculture and processing, currently included in the Guidance documents, be included in the revised EU-MAP? What segmentation should apply?
- 4. Does the frequency for the social data collection appear appropriate (three years or more)?
- 5. How should the data collection on social variables indicated in Table 6 and Table 11 be presented in EU-MAP (instead of pilot study)?
- 6. Should the threshold on the social and economic data on aquaculture be kept or should it be revised?
- 7. Should the reference on Guidance documents on Definitions / Methodologies / Quality be integrated in the revised EU-MAP?

[Currently there is no operational guidance on data validation and quality reporting except for the document on Quality of socio-economic variables described in EU-MAP. PGECON should discuss the applicability of this document and possibilities to further improve the quality assurance framework for economic and transversal data, taking into account the *Guidance document on Methodology of socio economic variables described in EU MAP 2018 consolidated and the Handbook on statistical procedures which will be available in 2019.*]

Achievements

The document "Recommendations for the revision of the Multiannual Union Programme for the collection, management and use of data in the fisheries and aquaculture sectors (EU-MAP), priority issues and outstanding questions, October 2018" was aimed at supporting the revision of the EU-MAP work under STECF, in particular with regard to preparing the discussion on the EU-MAP revision under STECF EWG 18-18.

The Commission Decision 2016/1251 was limited to a 3-year period in view of adoption of the 2017 Regulation and is scheduled to be renewed after 2019 to allow for sufficient time for consultation of relevant stakeholders on the contents of a revised EU-MAP.

All the reports provided by PGECON, STECF EWG, RCGs, Workshops and Studies from 2016 to 2018 with relevant sections were analysed before the discussions about the changes for the economic and social data collection in new EU-MAP. The compilation of all previous recommendations and suggestions included in the reports text or tables have been made. The recommendations were grouped into following topics:

- changes in methodology and definitions,
- Quality Assurance for the social and economic data,
- improvement of the AR template and Evaluation template for the social and economic data,
- social data collection,
- automation of the reporting process,
- population covered and definitions for the ESTAT & EU-MAP,
- merging procedures between economic, transversal and biological data.

EWG 18-18 experts were invited to have a first discussion on topics provided above and to provide a list of questions for the future discussions and consultations with PGECON. The main task for the PGECON under ToR 6 was to provide recommendations for the parameters inclusion or revision in the EU-MAP Commission Decision 2016/1251 and guidelines COM 2016/1701 with clearly explained reason for the parameters inclusion or revision based on the list of questions from EWG 18-18. According to this task the proposed revisions and detailed explanation were included into the table Annex <u>IX</u> ToR6 EU-MAP Revision.

During the meeting DG MARE gave an update on the revision process:

MAP renewal and revision:

• The current EU MAP provisions have been renewed/extended for two years (until 2021) through: Commission Delegated Decision (EU) 2019/910 establishing a multiannual Union programme for the collection and management of biological, environmental, technical and socio-economic data on fisheries and aquaculture sectors of 13 March 2019 and Commission Implementing Decision (EU) 2019/909 establishing the list of mandatory surveys and thresholds for the purposes of the multi-annual Union programme for the collection and management of data in the

fisheries and aquaculture sectors of 18 February 2019. These are pending publication in the Official Journal (EP and Council scrutiny by 15/5).

- In parallel with the extension process, COM launched end of 2018 consultations with end users (finished end March) and RCGs/PGECON (to be finished end June) for the updating of species, stocks, métiers and surveys which are to be included in a future EU MAP.
- COM aim is to adopt the MAP by early autumn 2020 and have it in force in 2021.

Recommendations

- **6.1 Guidance document:** PGECON should administer a live guidance document tracking all variable definitions, amendments, clarifications etc. to make it easier for MS to understand variable definition evolution.
- **6.2 Economic data collection in fleet:** There is no need for revisions to any definitions. Specifically, there is no need to change, at this moment, the definitions to 'active fleet' or 'fleet segment' or the text under Chapter III Data requirements 5(a).
- **6.3 Economic data collection in fleet:** Reinstate FTE into Table 5a so to reflect the data call which still requires FTE as part of the economic data (separate to the social data).
- **6.4 Economic data collection in fleet:** Divide 'Engaged Crew' into 'Paid' and 'Unpaid'. The division of employment into paid and unpaid will give clarity to the figures provided by MS.
- **6.5** Economic data collection in fleet: Include a footnote under Table 5B to reinstate the definition of the dominance criteria from EU Dec. 93/2010: 'The dominance criteria shall be used to allocate each vessel to a segment based on the number of fishing days used with each gear. If a fishing gear is used by more than the sum of all the others (i.e. a vessel spends more than 50 % of its fishing time using that gear), the vessel shall be allocated to that segment. If not, the vessel shall be allocated to the following fleet segment: (a) 'Vessels using Polyvalent active gears' if it only uses active gears; (b) 'Vessels using Polyvalent passive gears' if it only uses passive gears; (c) 'Vessels using active and passive gears'.
- **6.6 Economic data collection in fleet:** at present, no changes to Table 5B should be made. However, there was discussion about the utility of the current fleet segmentations definition and while PGECON does not recommend a change to these, at present, it does recommend a workshop to investigate alternate methods of segmentation as defined by 'fisheries' rather than dominant gear. The following terms of reference are proposed for this WS:
 - Group vessels by characteristic types of fisheries (based on expert knowledge),
 - Analyse the cost structure of vessels grouped accordingly,
 - Compile principles for grouping vessels (e.g. targeted stocks, targeted species groups, pursuing typical fishing patterns over the year),
 - Apply different approaches to MS fleets to investigate if fleets can be thoroughly covered,

- Compare applicability of different approaches to different regions.
- **6.7 Data collection in aquaculture:** No revision is currently needed for Table 9 in the revised EU-MAP. Segmentation itself is clear, but more guidance for MS is needed on how to allocate production and economic variables into the EU-MAP segments. Currently it is too early to give an official recommendation by PGECON, but a footnote to Table 9 could be added referring to recommendations by aquaculture EWG and PGECON.
- **6.8 Data collection in aquaculture:** to include FTE national (annual data collection) in Table 7 in the new EU-MAP and to make "number of hours worked by employees and unpaid workers" from the Table 7 optional.
- **6.9 Data collection in processing:** adding a new heading to EU-MAP Chapter III: 7 "Social and economic data on fish processing, to enable the assessment of the social and economic performance of the Union fish processing sector". The Chapter III.7 should include the definition referring to the definition provided under DCF (Chapter 4, section B.4 of COMMISSION DECISION 2010/93/EU) "The population shall refer to enterprises whose main activity is defined according to the EUROSTAT definition under NACE Code 15.20: 'Processing and preserving of fish and fish products'", currently NACE code 10.20." Only number of firms and turnover for the secondary activity companies should be reported. For enterprises that carry out fish processing, not as a main activity, only number of firms and turnover should be reported.
- **6.10 Data collection in fish processing:** the segmentation on fish processing should be provided in new EU-MAP Chapter III under new heading 7. The definition of size classes should be in line with the Eurostat definition for SBS. The recommendation comes from the discrepancy with DCF and first EUMAP definitions where the first class was <=10 employees while in Eurostat (SBS regulation) the first class is <9 employees (enterprises with 10 employees are included in the second class).

Considering that EUMAP is based on the recommendation of alignment with Eurostat and some MS use SBS we suggest using the same size classes. A reference to size classification of SBS 11 11 0 according to commission regulation (EC) 251/2009 (from STECF 13-31 (EWG 13-15) recommendation) should be added. The segmentation in the EU-MAP guidelines table 3C should be revised accordingly (COM 2016/1701).

- **6.11 Data collection in fish processing:** to make "number of hours worked by employees and unpaid workers" optional in the table 11.
- **6.12 Social data collection:** continue using the current frequency every three years starting in 2018 when first data was collected for 2017 until further experience has been gained from both end users and experts.
- **6.13 Social data collection:** no revision needed in the table 6 and 11 but the pilot study should be deleted from the new EU-MAP text (Chapter III 5 (b); 6 (b)) and the text box for the pilot study in the new EU-MAP guidelines should be revised accordingly (COM 2016/1701). The pilot study results should be included in the new EU-MAP on the ongoing basis.
- **6.14 Social data collection:** the option for two types of age categories for variable "Employment by age" in fish processing Table 11 should be provided for MS. The Table 11 does not require the revision but in the document for definitions the two types of age categories should be included. In the first instance MS should use PGECON age

categories and, only as a second option, to align with other EU standards (Eurostat LFS). Otherwise, MS should justify different choices.

Age categories for Fisheries should be broken down further and updated in PGECON definitions. The age category '40-64' should be broken down, at least, by '40-54' and '55-64'. The variable "Employment by education level" should be optional in the table 6 and table 11 and where possible for those MS reporting this a variable on Vocational/Technical training should be included.

- **6.15 PGECON recommends:** the collection of raw material should remain optional and be carried out as planned in the national work plan. The recommendation is based on the outcome from the SECFISH project and the discussion at the PGECON meeting regarding the collection of raw material data from the processing industry. If collected, the raw material data can be included in the national chapter of Economic Report on the EU processing industry.
- **6.16 PGECON recommendations on economic data for recreational fishery:** PGECON agreed that any outcome from the results of the SECFISH project on recreational fishery (WP7) should be consulted as there was not enough expertise at the meeting to address this issue.
- **6.17 PGECON recommendation on new data collection:** to request biologists to take into consideration the possibility of including biological data collection for freshwater commercial and recreational fisheries under the EU-MAP biological sections as optional. The inclusion of biological data is requested by landlocked MS based on pilot study results, showing that the quantitative and qualitative information received could in turn improve the analysis of the freshwater aquaculture sector. Especially sound data on fish biomass are of interest for the aquaculture sector that produces stocking/restocking material and economically rely on this activity. In fact, freshwater fish biomass data serve as an important demand indicator for the production of native species' fingerlings /juveniles in freshwater aquaculture.
- **6.18 PGECON recommendation on environmental data for aquaculture:** the purpose of the data collection should be clarified by the Commission and decision to keep or delete Table 8 Environmental variables for the aquaculture sector from the new EU-MAP should be discussed.
- **6.19 PGECON recommends:** quality assurance framework and methodological report with reference to handbook should be included under the new EU-MAP Chapter III (5,6,7). The EU-MAP format for submission of WP should be revised accordingly (COM 2016/1701). The table 5B should be deleted from EU-MAP guidelines (COM 2016/1701) as it does not provide the comprehensive information about quality.

PGECON recommends making a revision under Annex 1 *Methodology* in the Methodological document "Methodologies for the socio-economic data described in EU-MAP Ad hoc Contract Commitment No SI2 725 694 Ref. Ares (2016)22440332 - 26/05/2016.

PGECON (Zagreb 2016) considered that it is not feasible to obtain a complete and fully defined document on methodologies for calculation and collection of each economic

variable through a (short) ad hoc contract. Therefore, PGECON suggested to implement the following procedure:



ToR 7. PGECON 2019 and 2020

Objectives

Emmet Jackson (Chair) led a discussion which had the following aims.

- 1. Possible slot for any outstanding issues.
- 2. Establishment of PGECON Sub-group meeting calendar for 2018-2019 where needed and selection of chairing persons, venue and dates:
 - a) PGECON 2020 meeting planning.
 - b) Revision of text from rapporteurs, preparation of draft PGECON report. Adoption of final PGECON 2019 recommendations written and approved from the group.

The chair thanked all the moderators and rapporteurs for their input for the week and to Edo Avdic

Mravlje for organising a very well-run meeting.

Achievements

There was a good discussion around possible workshops, dates of meetings, and nominating future chairs.

At the 2018 PGECON meeting (14th-18th May) one of the terms of reference focussed on a review of capital value estimations. The outcome of this ToR was that PGECON recommended to carry out a Capital Value Workshop with the aim to:

- 1. Present and discuss MS experiences in approaches and results from estimating fleet capital value and calculation of capital costs through PIM and alternative methods.
- 2. Compare price per capacity unit applied by different MS and assumptions made on the PIM method (age schedules, depreciation schemes, depreciation rates, etc.).
- 3. Compare Economic analysis resulting from the use of different assumptions.

Decisions on the chair(s), location and final ToR need to be decided.

It was agreed that this workshop should still take place and that aspects of SECFISH WP 4 on the evaluation of intangible assets should be included in the terms of reference.

The chairs of this meeting will be Evelina Sabatella and Jarno Virtanen and is scheduled for October in Salerno, Italy. The date will need to be confirmed between PGECON chairs and workshop chairs.

PGECON Workshops

During PGECON the need for additional workshop was identified for the following topics. It would be advisable to combine these together, where possible, or have these as extended ToRs at PGECON 2020 to minimise travelling time and expense. For example, proposed workshops 1 and 2, on fishery and aquaculture segmentation would natural fit together and could run in parallel at a workshop.

1. Workshop/study on fisheries-based approach of fleet segmentation

Possible terms of reference:

- Group vessels by characteristic types of fisheries (based on expert knowledge).
- Analyse the cost structure of vessels grouped accordingly.
- Compile principles for grouping vessels (e.g. targeted stocks, targeted species groups, pursuing typical fishing patterns over the year).
- Apply different approaches to MS fleets to investigate if fleets can be thoroughly covered.
- Compare applicability of different approaches to different regions.

2. Workshop/study on aquaculture topics

Possible terms of reference:

- Comparison between old and new aquaculture segmentation
 - Consider and propose the guidance for MS on how to allocate production and economic variables from the EU-MAP segments listed in the Table 9 (COM2016/1251) by the old DCF segmentation provided in Appendix XI (COM 2010/93/EU);
 - Compare the time series from 2008 to 2018 for aquaculture data based on recommended allocation for the old and new segmentation;
 - Create the footnote to Table 9 in draft of the new EU-MAP referring to PGECON aquaculture Workshop recommendations about the segments allocation.
 - Clarification of the consistency of the segmentation practices between countries
 - Identification of relevant and irrelevant production techniques/segments
- In line with STECF proposals, clarification of Dealing with confidentiality issues
- Presentation and discussion of relevant pilot studies
- As further ToRs during the workshop or as a specific ToR during PGECON 2020:
 - Clarification of the separation between aquaculture and other activities.
 - Clarification of the segmentation by techniques.

3. Quality Assurance Framework Subgroup Workshop

- Define the process of quality assessment and assurance.
- Revise the guidelines of the Methodological report (with reference to the Handbook).
- Test the methodologies reported in the Handbook.

4. Environmental data collection (workshop or sub-group)

- The purpose of the data collection should be clarified and the decision to leave or delete Table 8 "Environmental variables for the aquaculture sector" from the new EU-MAP should be discussed (provision of sound justification by end-users).
- In case of the continuation of the environmental aquaculture data collection the clear legal base and exact definitions for the variables "Medicines or treatment administered (by type in gram)" and "Mortalities (in %)" should be elaborated together with experts' consulting, as well as best practice for this data collection (e.g., survey, veterinary data or scientific study).
- Clarification, which environmental data is already available due to other regulations (e.g. 2006/88/EG discuss the definitions).
- Clarification of the need for segmenting the causes of mortality., and which segmentation would be purposeful (e.g. predators, flood, disease, natural etc.).

PGECON 2020

Emmet Jackson will finish his chairing duties following the next Liaison Meeting (LM) in September 2019. Arina Motova will remain as chair and Monica Gambino was nominated at the new co-chair for 2020.

There was a long discussion about the timing of the PGECON meeting. While May is not ideal it was agreed, having looked at a typical year plan (Table 1), that is was still the best month to host the meeting.

Table 3Calendar view for 2019.

| Jan-19 | Feb-19 | Mar-19 | Apr-19 | May-19 | Jun-19 | Jul-19 | Aug-19 | Sep-19 | Oct-19 | Nov-19 | Dec-19 |
|--------|---------------------|--------|-------------|-------------|--------------------|-----------|--------|---------------|----------------------|---------------------|--------|
| | Fisheries Data Call | | EWG - AER I | PGECON 2019 | EWG - AER II | RCG - LDF | | NC Meeting | PGECON WS | EWG - Processing | |
| | | | | | EWG -AR Evaluation | | | EWG - Balance | Liason Meeting | EWG - WP Evaluation | |
| | | | | | RCG - NS/EA | | | RCG NS/EA | Processing Data Call | | |
| | | | | | | | | FDI | WP Submission | | |
| | | | | | | | | RCG - NA | | | |
| | | | | | | | | RCG - Med | | | |
| | | | | | | | | RCG - Baltic | | | |
| | | | | | | | | EWG - EU MAP | | | |

There was a proposal to have future meetings focus more on processing and aquaculture data collection. It was also proposed that, where possible, the ToRs for meetings should be structured by topic (Aquaculture, Processing, Fisheries) to allow people to attend parts of the meeting that are most relevant to them. It was also decided that meetings do not have to

take place over five days and could take place over a shorter period if the planned ToR can be covered in a shorter time.

Recommendations

7.1 The following meetings and chairs were decided for the remaining meeting in 2019 and for workshops in 2020. It was decided that the other workshops identified could take place in parallel to other workshops and/or could be run as specific extended ToR at PGECON 2020.

| No. | Meeting | Date | Venue | Chairing |
|-----|--------------------------------------------------------------------------------------|------------------------------------|---------------------------------------------------------------------------|-------------------------------------|
| 1. | Workshop on Capital Value estimations and PIM & Intangible assets. | 7-10 October 2019 | Salerno, Italy. | Evelina Sabotela, Jarno Virtanen |
| 2. | PGECON 2020 | May 2020 [either 4-8 or 18-22], | Sofia, Bulgaria. Hosted by Simona Nicheva and Kolyo Zhelev | Arina Motova, Monica Gambino |
| 3. | Workshop on fleet segmentations in parallel with Aquaculture topic workshop | ТВС | ТВС | TBC |
| 5. | Workshop on QAF and 'Handbook' | Early 2020 | Possibly Finland | ТВС |

7.2 Future reports need to have concise recommendations clearly identifying who the recommendations are targeted at (PGECON functioning, MS, STECF, end-users, Com. etc.). Future meetings will try, where possible, to group and timetable ToRs by fishery, aquaculture, and processing sectors to accommodate experts. A shared folder should be maintained to keep 'corporate memory' and share documents. The ftp folder maintained by the JRC was identified as a possible solution.

| No. | Name | Institution | Member State | Email address |
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| 10 | Janek Lees | Estonian Marine Institute | Estonia | janek.lees@ut.ee |
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| 12 | Annette Hurrelmann | European Commission, DG MARE, C3 scientific advice and data collection | EU | annette.hurrelma nn@ec.europa.eu |
| 13 | Heidi Pokki | Natural Resources Institute Finland (Luke) | Finland | heidi.pokki@luke. fi |

Annex I - List of PGECON 2019 participants

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| 24 | Brian Burke | Bord Iascaigh Mhara | Ireland | brian.burke@bim. ie |
| 25 | Emmet Jackson (Chair) | BIM | Ireland | emmet.jackson@b im.ie |
| 26 | Maria Cozzolino | NISEA | Italy | Cozzolino@nisea. eu |
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| 41 | Matt Elliott | Marine Management Organisation | UK | matt.elliott@mari nemanagement.or g.uk |

Annex II – ToR 2019

Agenda for PGECON 2019 Hotel Slon, Slovenska Cesta 34, 1000 Ljubljana Slovenia Chairs: Emmet Jackson, Arina Motova Hosts: Jernej Švab, Edo Avdič Mravlje Coffee breaks at 10:30 and 15:30; lunch time from Tuesday 13:00-14:00

Monday 6th May

13:00 - 14:00

Opening of Meeting

- 8. Welcome to the meeting and housekeeping (PGEOCN Chair(s), Host Institution).
- 9. Round table introductions.
- 10. Adoption of the agenda (PGECON Chair(s)).

15:00 - 18:00

ToR 1 - SecFish Project Results (Moderator: Ralf Döring)

An update on the SecFish project will be presented by Work Packages (WP) leaders. There will also be a planned training session for WP3 which will take place in parallel to ToR 3 on Wednesday morning.

- 11. SecFish Introduction and Background, (Ralf Döring)
- 12. WP 1 Presentation of the SWAT-Analysis and the results of selected questions from the questionnaire. Proposals for the revision of the EU MAP, (Evelina Sabatella).
- 13. WP 2 Sampling Design and estimation methods for fleet and aquaculture economic data collection. Overview on the contents of the handbook will be presented, (Jarno Virtanen).
- 14. WP 3 Development of common methodology to disaggregate economic variables. (Isabella Bitetto).
- 15. WP 4 Methodologies for estimation of intangible assets in EU fisheries, (Hans van Oostenbrugge).

Tuesday 7th May

09:00 - 13:00

ToR 1 Continued - SecFish Project Results (Moderator: Ralf Doring)

- 16. WP 5 Origin and Sources of raw material in European seafood industry, (Rasmus Nielsen).
- 17. WP 6 Social Indicators, (Arina Motova)
- 18. WP 7 Recreational Fisheries (Harry Strehlow, proxy Ralf Doring)

14:00 – 18:00 – Two Parallel Sessions

Parallel Session 1

ToR 2 PGECON Governance and Rules of Procedure – (Moderators: DG MARE)

- 19. Update on decision on PGECON Status.
- 20. Rules of Procedure <u>http://ec.europa.eu/transparency/regexpert/index.cfm?do=groupDetail.groupDetail</u> <u>&groupID=2750</u>

Parallel Session 2

ToR 1 – SecFish Tutorial (Moderator: Isabella Bitetto)

1. An opportunity will be provided to have MS use the disaggregation R-tools. Prior to the meeting the result of WP-3 will be circulated with the case studies and the developed R-code(s). MS will be asked to bring data with them to work up at the tutorial.

Wednesday 8th May

09:00 - 13:00

Parallel Sessions Continues

Parallel Session 1 (am and pm)

ToR 3 - Parallel Session on Freshwater Aquaculture in Maritime and Landlocked Countries (Moderator: Claudia Winkler)

As recommended at PGECON 2018 a discussion was requested on Aquaculture with specific reference on aquaculture including the land locked MS. MS share their expertise (e.g. best practice) and provide ideas on the organisation of aquaculture data collection.

- 2. Reports from the member states, with special focus on discussion points below
 - current mandatory/voluntary data collection
 - status quo of the pilot studies and on planned pilot studies (presentations by GER, HU, AT confirmed)
- 3. Discussion on specific challenges of data collection in fresh water aquaculture
 - Separation between aquaculture and other activities (e.g. processing, agriculture, etc.)
 - Small scale part time aquaculture and challenges related to data collection from this sector

- Environmental indicators and their data collection
- MSs' experience on annual reports' reception by the Commission; consequences of missing data in voluntary data collection

Parallel Session 2 09:00 – 13:00

ToR 1 – SecFish Tutorial Continued - (Moderator: Isabella Bitetto)

1. An opportunity will be provided to have MS use the disaggregation R-tools. Prior to the meeting the result of WP-3 will be circulated with the case studies and the developed R-code(s). MS will be asked to bring data with them to work up at the tutorial.

14:00 - 18:00

ToR 4 - Results from PGECON Workshop on social data call and review of 2019 Socioeconomic data call (Moderator: Natacha Carvalho).

- 2. The results from the DCF/PGECON Workshop on Social variables and ensuring the smooth transition between data collection regulations (DCF to EUMAP) will be presented. This will be followed with a discussion on lessons learned from the 2019 Fisheries Data Call, AER End-users and areas for improvement.
- 3. Suggestions and recommendations for future data collection of social variables and data calls (processing and aquaculture).

Thursday 9th May

ToR 5 – Processing (Moderator: Loretta Malvarosa)

Results from MS who have collected data on weight of raw material (Table 11, (EU) 2016/1251)

- 1. MS Results from pilot studies
- 2. Discussion of inclusion of these results in the next data call, data call deadlines and future processing STECF Report.

ToR 6 - Recommendations for the revision of the Multiannual Union Programme NOTE: This is designed to reflect the Intersessional Group ToR on input to the revision of the EU-MAP that is taking place at the same time in Ghent.

- 4. Consider and propose on the basis of input from the RCG's and the recommendations given in the document "Recommendations for the revision of the Multiannual Union Programme for the collection, management and use of data in the fisheries and aquaculture sectors (EU-MAP), priority issues and outstanding questions, October 2018" and the consequences any new data collection may have for the present data collection.
- 5. Assess any new requests from end-users (e.g. STECF-18-18 Report, EWG 19 05) providing scientific advice for the management of the CFP and the consequences any new data collection may have for the present data collection.

- 6. Assess any new additional data collection and consider any related cost implication and the consequences any new data collection may have for the present data collection.
- 7. On the basis of evaluations propose any changes to the present EU-MAP.

Specific Questions raised by EU in 'Consultation of RCGs and PGECON on the potential revision of EU-MAP biological data and socio-economic data, December 2018'. Documentation will be circulated prior to the meeting in support of the above.

Friday 10th May

09:00 - 13:00

ToR 7 – Planning – Workshops and PGECON 2020.

- 8. Possible slot for any outstanding issues.
- 9. Establishment of PGECON Sub-group meeting calendar for 2018-2019 where needed and selection of chairing persons, venue and dates. In particular:

At the 2018 PGECON meeting (14th-18th May) one of the terms of reference focussed on a review of capital value estimations. The outcome of this ToR was that PGECON recommended to carry out a Capital Value Workshop with the aim to:

1. Present and discuss MS experiences in approaches and results from estimating fleet capital value and calculation of capital costs through PIM and alternative methods.

2. Compare price per capacity unit applied by different MS and assumptions made on the PIM method (age schedules, depreciation schemes, depreciation rates, etc.).

3. Compare Economic analysis resulting from the use of different assumptions.

Decisions on the chair(s), location and final ToR need to be decided.

- 10. PGECON 2020 venue, dates and selection of new co-chair. (Moderator, PGECON Chair(s)).
- 11. Revision of text from rapporteurs, preparation of draft PGECON report. Adoption of final PGECON 2018 recommendations written and approved from the group (Moderator, PGECON Chair).

Meeting Close 13:00

Annex III – ToR 1 – WP3 Workshop Guidelines

Strengthening Regional cooperation in fisheries data collection – MARE/2016/22. Socioeconomic data collection for fisheries, aquaculture and the processing industry. Work Package 3: Development and implementation of common methodologies to disaggregate economic variables by activity and area

Guidelines for disaggregating economic data at the same resolution of transversal data and validation tool.

Preparation of input files for deriving the relationships between variable costs and transversal variables

The format used is the one used during the last workshop on European economic database and on disaggregation of economic data as related to the DCF held in Malta in October 2012. Seven .csv data files are necessary to run the scripts of the exploratory analysis and for fitting the GLMs:

- 1. Capacity: where the information about each vessel (KW, GT, LoA, etc...) are contained;
- 2. Costs: where the data related to fuel costs, fuel consumption, maintenance costs and other variable costs are stored;
- 3. Effort: association trip-total fishing hours carried out;
- 4. Landings: association trip-landing and related revenue;
- 5. Operations: association fishing operation-number of fishing hours-metier;
- 6. OperID: association operation-trip;
- 7. Trip: association trip-vessel.

The formats of the 7 .csv files are described and reported in the Excel file distributed with the Rtools SECFISH package. The input files, to be used for deriving the relationships between costs and transversal variables based on individual vessel data, are in the yellow sheets with prefix "INP".

In the folder Input of the package the 7 files corresponding to a sample dataset are also stored.

Capacity

Table 4 – Capacity table: fields and description.

| Field | Description |
|-----------|----------------------------------------------------------------|
| Nat | 3-letter country code |
| | any unambiguous and anonymous ID for each vessel (e.g. |
| vessel_ID | starting with 3-letter country code plus 5-digit number) |
| LoA | length over all (rounded to meters) |
| | gross tonnage (if gross tonnage allows to identify the vessel, |
| GT | please alter it slightly) |

| Field | Descriptio | on | | | |
|--------|----------------------------------------------------------------|--------------------------|---------------------|--------------|--|
| | kilowatt (if kW allows to identify the vessel, please alter it | | | | |
| kw | slightly to ensure confidentiality) | | | | |
| crew | Number of employees | | | | |
| | fishing | technique | category | (e.g. | |
| | https://data | acollection.jrc.ec.europ | oa.eu/wordef/fleet- | segment- | |
| Tech | <u>dcf</u>) | | | | |
| | vessel | length | l | category | |
| | (e.g. | https://datacollection. | jrc.ec.europa.eu/w | ordef/fleet- | |
| VesLen | segment-de | <u>cf</u>) | | | |

Costs

Table 5 – Costs table: fields and description.

| Field | Description | | |
|----------------------------------------------------------------|-------------------------------------------------------|--|--|
| | any unambiguous and anonymous ID for each vessel (e., | | |
| vessel_ID starting with 3-letter country code plus 5-digit num | | | |
| crewcost | Labour costs | | |
| fuelcost | Fuel costs | | |
| fuelcons | Fuel consumption (litres) | | |
| repmaint | Repair and maintenance costs | | |
| othvarcost | Variable costs (other operational costs) | | |

Effort

Table 6 – Effort table: fields and description.

| Field | Description |
|-------------|--------------------------------------------------------------|
| | 6 digit "number" to unambiguously identify a trip or a group |
| Trip_ID | of homogeneous trips |
| total_hours | total duration of the trip |

ATTENTION: if observations at trip level are not available, the Trip_ID could also identify aggregation of them, e.g. monthly observation.

Landings

| Field | Description | | |
|---------|--------------------------------------------------------------|--|--|
| | 6 digit "number" to unambiguously identify a trip or a group | | |
| Trip_ID | of homogeneous trips | | |
| volume | Live weight of total catch considered | | |
| revenue | Revenues referring to total catch considered | | |

Table 7 – Landings table: fields and description.

ATTENTION: if observations at trip level are not available, the Trip_ID could also identify aggregation of them, e.g. monthly observation.

Operations

| Field | Description | | | |
|--------------|------------------------------------------------------------------|--|--|--|
| | 6 digit "number" to unambiguously identify each different | | | |
| | group of operations. A "trip_ID" only has more than one | | | |
| | "oper_ID" if the trip contains more than one division or more | | | |
| oper_ID | than one metier. | | | |
| | hours fished, soaking or trawling time, see also Appendix VIII | | | |
| | DCF. | | | |
| hours_fished | To be aggregated per "oper_ID" | | | |
| | Fishing area (e.g. | | | |
| | https://datacollection.jrc.ec.europa.eu/web/dcf/wordef/fishing- | | | |
| DIVISION | <u>area</u>) | | | |
| | Metier defined as level on which the user needs to disaggregate | | | |
| | the variable costs. It can be defined as in | | | |
| | https://datacollection.jrc.ec.europa.eu/wordef/fishing-activity- | | | |
| | metier, or as concatenation of metier and DIVISION, or also | | | |
| | grouping the mesh sizes, if necessary. It needs to be a generic | | | |
| METIER | string. | | | |

Table 8 – Operations table: fields and description.

ATTENTION: if observations at trip level are not available and the Trip_ID in the previous tables identifies aggregation of them, e.g. monthly observation, the OPER_ID must identify aggregation of them, e.g. monthly observation as well.

OperID

Table 9 – OperID table: fields and description.

| Field | Description | | |
|---------|---------------------------------------------------------------|--|--|
| | 6 digit "number" to unambiguously identify each different | | |
| | group of operations. A "trip_ID" only has more than one | | |
| | "oper_ID" if the trip contains more than one division or more | | |
| oper_ID | than one metier. | | |
| | 6 digit "number" to unambiguously identify a trip or a group | | |
| Trip_ID | of homogeneous trips | | |

ATTENTION: if observations at trip level are not available and the Trip_ID in the previous tables identifies aggregation of them, e.g. monthly observation, the OPER_ID must identify monthly observation as well.

Trip

Table 10 – Trip table: fields and description.

| Field | Description |
|---------|--------------------------------------------------------------|
| | 6 digit "number" to unambiguously identify a trip or a group |
| Trip_ID | of homogeneous trips |

| Field | Description |
|-----------|----------------------------------------------------------|
| | any unambiguous and anonymous ID for each vessel (e.g. |
| vessel_ID | starting with 3-letter country code plus 5-digit number) |

ATTENTION: if observations at trip level are not available, the Trip_ID could also identify aggregation of them, e.g. monthly observation.

Preparation of input files for disaggregation of the variables costs time series from the fleet segment level to the fleet segment-metier level

The files needed to disaggregate the time series of the variable costs from the fleet segment level to the fleet segment-metier level are 3:

- Costs_by_FS.csv: where the costs by fleet segment are stored;
- FS_MET.csv: where are stored the coefficients of the GLM to disaggregate the costs by métier, specifying the selected option;
- Effort_metier.csv: where the time series of the Effort for the métier used by the fleet segment under study is stored.

The formats of the 3 .csv files are described and reported in the Excel file distributed with the RTools_SECFISH package. <u>The input files formats are in the orange sheets with prefix</u> <u>"DIS"</u>.

In the folder Input of the package the 3 files corresponding to a sample dataset are also stored.

Costs_by_FS

| | - / - | | | |
|---------------|----------------|--------------------|------------------|------------------|
| Field | Description | | | |
| | Any string | identifying a | a fleet segm | ent (e.g. |
| | https://dataco | llection.jrc.ec.eu | uropa.eu/word | ef/fleet- |
| Fleet_segment | segment-dcf) | | | |
| | fishing | technique | category | (e.g. |
| | https://dataco | llection.jrc.ec.eu | uropa.eu/word | <u>ef/fleet-</u> |
| fishing_tech | segment-dcf) | | | |
| | vessel | length | | category |
| | (e.g. | | | |
| | https://dataco | llection.jrc.ec.eu | uropa.eu/word | ef/fleet- |
| vessel_length | segment-dcf) | 1 | | |
| year | Any year for | which the cost h | has to be disage | gregated |
| | Type of cost. | Allowed values | : fuel_costs, ot | her_costs, |
| variable_name | labour_costs, | maintenance_co | osts. | |
| value | Cost in any c | urrency. | | |

Table 11 – Costs_by_FS table: fields and description.

FS_MET

| Field | Description |
|----------------------|--------------------------------------------------------|
| | Type of cost. Allowed values: fuel_costs, other_costs, |
| Type_of_cost | labour_costs, maintenance_costs. |
| | Any string identifying a fleet segment (e.g. |
| | https://datacollection.jrc.ec.europa.eu/wordef/fleet- |
| Fleet_segment | segment-dcf) |
| Explanatory_variable | See detailed description below. |
| Coefficient | See detailed description below. |
| | 1, 2 or 3, according to the detailed description |
| Option | reported below. |

Table 12 –FS_MET table: fields and description.

ATTENTION: typology of costs and fleet segments in this table should coincide with those to be disaggregated, reported in the Costs_by FS table.

The field Option can be filled with one value among 1, 2 or 3.

Option 1: the metier was found significantly influencing the specific type of variable cost for the fleet segment according to the <u>additive</u> model:

 $variable_cost \sim factor(Prevalent_metier) + Effort + 0.$

To fill in the fields Explanatory_*variable* and *Coefficient*, the output produced by the GLM.r script has to be considered for that fleet segment for the disaggregation.

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Figure 4 – Location of the outcomes to be used to fill in FS_MET table for option 1 and 2, divided in dedicated folders, by type of cost.

| Fuel_costDTS VL1218 - Blocco note | × |
|---------------------------------------------------------------------------------------------------------------|---|
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| [1] "DTS VL1218" | ^ |
| Group.1 x per cum | |
| 4 OTB_DES_>=40_0_0 VL1218 55 0.376712329 0.3767123 | |
| 6 OTB_MDD_>=40_0_0 VL1218 53 0.363013699 0.7397260 | |
| 5 OTB_DWS_>-40_0_0 VL1218 26 0.178082192 0.9178082 | r |
| 7 PTM_SPF_>+20_0_0 VL1218 4 0.027397260 0.9452055 | |
| 3 LLD_LPF_0_0_0 VL1218 3 0.020547945 0.9657534 | |
| 8 T88_DE5_0_0_0 VL1218 3 0.020547945 0.9863014 | |
| 1 GN5_DEF_>=16_0_0 VL1218 1 0.006849315 0.9931507 | |
| 2 GTR_DES_>=16_0_0 VL1218 1 0.006849315 1.0000000 | |
| r-33 | |
| Latt: | |
| <pre>gim(tormula = tuelcost ~ factor(Met_LOR) + Effort + 0, family = gaussian(), data = COSTS_temp)</pre> | |
| Deviance Residuals: | |
| Min 10 Median 30 Max | |
| -28423 -10109 -3962 7062 63884 | |
| | |
| Coefficients: | |
| Estimate Std. Error t value Pr(> t) | |
| factor(Met_LOA)0T8_DE5>=40_0_0_VL1218 1.110e+04_2.904e+03_3.823_0.000224 *** | |
| factor(Met_LOA)018_M00_>=40_00 VL1218 1.259e+84 3.355e+05 3.776 0.000264 *** | |
| Litert 2.413e+88 4.395e-81 5.492 2.79e-87 | |
| Signif. codes: 0 (**** 0.001 (*** 0.05 (.* 0.1 (* 1 | |
| | |
| (Dispersion parameter for gaussian family taken to be 263429126) | |
| Null deviance: 9.7637e+10 on 108 degrees of freedom | |
| Residual deviance: 2.7660e+10 on 105 degrees of freedom | |
| AIC: 2405.5 | |
| Number of Eisher Scoring iterations: 2 | |
| | • |

Figure 5 – Example of .txt file containing the summary of the GLM (additive model) automatically saved in the folders in Figure 1. These outcomes have to be used to fill in FS_MET table, for fields Coefficients and Explanatory_variable.

Below it is an example of how FS_MET should be filled in in this case:

| Type_of_cost | Fleet_segmer | nt Explanatory_varia | ble Coefficient | Option |
|--------------|--------------|----------------------|-----------------|--------|
| fuel_costs | DTS_VL1218 | OTB_DES_>=40_0_ | 0 1.11E+04 | 1 |
| fuel_costs | DTS_VL1218 | OTB_MDD_>=40_0 | 0_0 1.26E+04 | 1 |
| fuel_costs | DTS_VL1218 | Effort | 2.41E+00 | 1 |

Table 13 – Example of compilation of FS_MET table: Option 1.

Option 2: the metier was found significantly influencing the specific type of variable cost for the fleet segment according to the <u>multiplicative</u> model:

*variable_cost ~ factor(Prevalent_metier) * Effort + 0.*

As for option 1, to fill in the fields Explanatory_*variable* and *Coefficient*, the output produced by the GLM.r script has to be considered for that fleet segment for the disaggregation.



Figure 6 – Example of .txt file containing the summary of the GLM (multiplicative model) automatically saved in the folders in Figure 1. These outcomes have to be used to fill in FS_MET table, for fields Coefficients and Explanatory_variable.

Below it is an example of how FS_MET should be filled in in this case:

| Type_of_cost | Fleet_segment | Explanatory_variable | Coefficient | Option |
|--------------|---------------|-------------------------|-------------|--------|
| fuel_costs | DTS_VL1218 | OTB_DES_>=40_0_0 | -859.4258 | 2 |
| fuel_costs | DTS_VL1218 | OTB_MDD_>=40_0_0 | 20254.9141 | 2 |
| fuel_costs | DTS_VL1218 | Effort | -4.1108 | 2 |
| fuel_costs | DTS_VL1218 | OTB_MDD_>=40_0_0:Effort | 5.1659 | 2 |

Table 14 –Example of compilation of FS MET table: Option 2.

Option 3: the metier was <u>not</u> found <u>significantly</u> influencing the specific type of variable cost for the fleet segment. The costs are disaggregated according to the <u>same simple linear</u> <u>regression</u> for the metier within the fleet segment. In this case, the slope of the linear regression at fleet segment level has to be put in the field Coefficient and only Effort (or e.g. Revenues for Labour costs), as Explanatory variable.



Figure 7 – Location of the outcomes to be used to fill in FS_MET table for option 3, divided in dedicated folders, by type of cost.



Figure 8 – Example of plot of the simple linear regression reporting the slope (correlation coefficient and significance) automatically saved in the folders in Figure 4. These outcomes has to be used to fill in FS_MET table, for the field Coefficients for option 3.

Below it is an example of how FS_MET should be filled in in this case:

| Table 15 – Example of compilation of FS_MET table: Option 3. | | | | |
|--------------------------------------------------------------|---------------|----------------------|-------------|--------|
| Type_of_cost | Fleet_segment | Explanatory_variable | Coefficient | Option |
| fuel_costs | DTS_VL1218 | Effort | 25.38 | 3 |

| Field | Description |
|---------------|----------------------------------------------------------|
| gear | Prevalent gear |
| | vessel length category |
| | (e.g. |
| | https://datacollection.jrc.ec.europa.eu/wordef/fleet- |
| vessel_length | segment-dcf) |
| year | Any year for which the cost has to be disaggregated |
| | Any string identifying a fleet segment (e.g |
| | https://datacollection.jrc.ec.europa.eu/wordef/fleet- |
| Fleet_segment | segment-dcf) |
| | Metier defined as level on which the user needs to |
| | disaggregate the variable costs. It can be defined as ir |
| | https://datacollection.jrc.ec.europa.eu/wordef/fishing |
| | activity-metier, or as concatenation of metier and |
| | DIVISION, or also grouping the mesh sizes, i |
| Metier | necessary. It needs to be a generic string. |
| | Any number (decimal with".", no separation for |
| Effort | thousands) representing the days at sea xKW or the |

Effort_Rev_metier
| Field | Description |
|--------------|--------------------------------------------------------|
| | hours at sea, according to the option used in the EA.r |
| | script. |
| | Any number (decimal with".", no separation for |
| | thousands). This variable should be the explanatory |
| | variable selected for modelling the labour costs (e.g. |
| Lab_expl_var | Revenues, Revenues minus fuel costs, etc) |

ATTENTION: fleet segments and metiers in this table should coincide with those reported in the Costs_by FS and in the FS_MET tables.

Annex IV - Draft RoP - ToR 2

Revised May 2019 at PGECON

DRAFT PGECON Rules and of Procedure

Legal basis

According to Article 9 of Regulation (EU) 2017/1004 of the European Parliament and of the Council on the establishment of a Union framework for the collection, management and use of data in the fisheries sector and support for scientific advice, Member States shall coordinate their data collection activities with other Member States in the same marine region. PGECON, which is responsible for the planning and coordination of social and economic data collection in the EU for fisheries, aquaculture and fish processing industries, is formally a subgroup of the Commission Expert Working Group on data collection and thus assists the Commission in implementing the Data collection framework, in particular with regard to specific issues related to the collection of social and economic data for fisheries, aquaculture and the processing industry.

1. Scope

1.1. PGECON can establish own Rules of procedure (RoPs), in accordance with the rules of procedure of the Commission Expert Working Group on data collection and of the horizontal Commission rules for the creation and operation of Commission expert working groups. The below RoPs establish more detailed working methods for PGECON.

2. Working language

2.1. The working language of the RCG is English.

3. Role of the chairperson

3.1. The governance of PGECON is the responsibility of a Chairing team which might consist of: one chair person or two co-chairing persons, the venue organizer (when meeting takes place not in the MS of chairing persons) and the moderators selected by chairperson(s).

4. Election of the PGECON chairperson(s)

4.1. The chairperson(s) may be elected or agreed upon without a vote by the PGECON. A national correspondent, an expert from a Member State or a representative from the Commission may act as a chairperson of the PGECON. European Commission may suggest nominees for a chairperson. Unless agreed without a vote by the PGECON, the election of a nominated chairperson(s) shall take place by voting in a form suggested by the resigning chairperson after consulting the national correspondents and European Commission present at the PGECON meeting. The vote is decided by a simple majority of the present members. (Note: can also indicate another quorum but must be indicated here)

4.2. One term for a chairperson covers the period of two years. A chairperson may serve two consecutive terms without limiting the total number of terms for the same person to act as a chairperson.

4.3. PGECON may decide to have co-chairperson(s). The same procedures and conditions as to the chairperson(s) elections apply.

5. The chairperson(s) responsibilities and agenda

5.2. The chairperson(s), in cooperation with moderators, are responsible for preparing term of reference (ToR), agenda for the PGECON annual meeting and in cooperation with chairperson(s) of Workshop(s) to prepare ToR and agenda for the Workshop(s).

5.3. The chairperson(s) is (are) responsible for convening the meeting, chairing plenary sessions, workflow management, drafting and preparing report of PGECON and presenting the PGECON outcomes at the Liaison meeting.

6. Agenda and submission of documents

6.1. The agenda and invitation to PGECON is prepared by PGECON chairperson(s) and shall be sent to the interested parties at least one month before meeting. Interested parties consists of: Commission representatives, National Correspondents of each MS implementing the EU-MAP and their nominated participants, RCG chairperson(s), participants from previous PGECON meetings, experts, end-users, observers and other persons involved in DCF.

6.2. On the first day of the PGECON meeting, an agenda shall be presented to the group for adoption.

6.3. Other documents and tasks may be requested for the preparation to the meeting and shall be sent at any time depending on the task, but not later than two weeks before meeting.

6.4. For PGECON and Workshop repository for documents should be opened no later than two weeks before the meeting.

7. PGECON meetings

7.1. To perform its duties, the PGECON shall hold at least once a year an annual meeting unless agreed otherwise by the PGECON group. An annual meeting shall consist of plenary sessions and may include work in subgroups or specific Workshop that tackle issues raised at the annual meeting.

7.2. No later than one month before the PGECON annual meeting or Workshop, the chairing and organizing team shall be responsible for providing details of accommodation, travel and other organizational information relevant for the meeting.

7.3. To carry out its duties, PGECON may agree to establish permanent or temporary subgroups. PGECON may provide terms of references for subgroups and appoint their moderator(s), rapporteur(s), or any other role(s) or working practices. If separate PGECON subgroups for their tasks needs more extensive ToR's and need extra time to achieve results, workshop meetings may be planed.

7.4. ToR for Workshops are agreed at the PGECON meeting or in a written procedure initiated by the PGECON Chairperson. The duration, form, meeting venue, terms of reference and other relevant elements for Workshop shall be established and organized by appointed Workshop chairperson(s) in with assistance of PGECON chairing team.

7.5. Chair of subgroup Workshop is responsible for managing workflow of the meeting, drafting and preparing of Workshop report and presenting it to PGECON meeting. Workshop report or at least draft version of it shall be prepared and sent to PGECON chairperson(s) and interested parties by Workshop chairperson not later than one month after Workshop meeting.

8. PGECON attendance

8.1. Member State and the European Commission may nominate their participants to the PGECON meeting and may choose the number of their participants with due regard of the items on the agenda at the relevant meeting. The information of the nominations should be communicated to the chairing team of the PGECON. 8.2. Member States may also nominate a national correspondent or an expert to participate in PGECON meeting.

8.3. End users for scientific advice should/could (always) be invited as well as other experts from outside the group as observers, on an ad hoc basis.

9. PGECON recommendations for further work

9.1. One of the outputs of PGECON is to provide recommendations for further work to be carried out by the Member States on all relevant issues related to the scope of the Regulation 2017/1004. The recommendations should provide, but are not limited to, clear and understandable stand-alone guidance on the recommended work to be carried out, its justification and methodological aspects. The addressees of recommendations are EU Member States who should follow-up on the recommendations. Depending on the situation, PGECON recommendation may be implemented or can be followed just after PGECON meeting or after Liaison report is published with final adopted list of recommendations. The follow-up of recommendations shall be reviewed under the PGECON annual meeting for recommendations of the previous year.

9.2. PGECON shall contribute to the establishment of methodological handbook and list of the best practices to be applied in data collection and consequently to be included in MS Work Plans.

9.3. PGECON shall contribute to the development of the Quality assurance framework (QAF) for socio-economic data with the work in its QAF subgroup with the aim to facilitate implementation through MS Work Plans.

9.4 Recommendations will be voted on consensus.

(It might be worth considering setting the procedure about either preparation or adoption (if it prepared by adhoc) as well as documentation of methodological document (handbook) for economic and social data collection.....

10. Cooperation between PGECON, RCGs, the European Commission and other relevant bodies

10.1. The chairperson(s) of the PGECON and/or other person(s) mandated by the PGECON annual meeting may participate and represent the PGECON in the coordination among RCGs (Liaison meeting) referred to in Article 9(6) of Regulation 2017/1004.

10.2. Report recommendations and other outcomes of PGECON shall be presented in annual Liaison meeting to RCG chairs and Commission representatives. 10.3. The chairperson(s) of the PGECON and/or other person(s) mandated by the PGECON annual meeting may participate and represent PGECON in other RCG's or other relevant meetings related to data collection, use and management of economic and social data of fisheries, aquaculture and fish processing.

10.4. If the ToR of PGECON is relevant to other RCGs, invitations could be extended to other RCG chairperson to participate in the meeting.

10.5. The Commission shall do its utmost to ensure attendance of at least one representative at PGECON meetings or if relevant, to Workshop meetings.

11. Reporting from PGECON meeting

11.1. The chairperson(s) of the PGECON shall be responsible for drawing up a report and meeting minutes. The report may contain, but is not limited to, recommendations, a summary of the PGECON intersessional progress and of the PGECON discussions, future work directions, and the intended work to be carried out before the next meeting, the list of foreseeable PGECON meetings and list of participants, their contact information, role and institution.

11.2. The minutes and report shall be made available to the participants of the meeting and publicly, as appropriate, within two months after the PGECON annual meeting has ended.

12. Amending rules of procedure

12.1. These Rules of procedure may be amended at the PGECON annual meetings.

| MS | Do you collect freshwater aquaculture data? | Which data do you collect? | Which methods of data collection do you use? | What challenges do you face with your data collection? (e.g. specific variables, return rates, etc.) | How to overcome these challenges ? | Recommendations for other MS, examples of Best Practice |
|-------|---------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Malta | No | Malta collects data for marine based species, related to economic variables stated in the EUMAP. | The methodology used to collect data is via census. Surveys are deployed and collected by the National Statistics Office. The DFA then obtains aggregated data according to the requirements of the data call and submits them accordingly. | The main challenge, at present, is the ambiguity when it comes to environmental data, the statistics office is requesting further clarification on the definition of these variables and a reason why | Nonetheless it would a good starting point to have a good definition of the environmental variables and the need for such variables by end- users. | In cases where an enterprise has aquaculture operations for different species (ex. Tuna, seabass and seabream), and the enterprise provides turnover/production for each species, the total costs provided (either via survey/financial statements) can weighted based on either turnover and |

| Annex | V – | ToR 3 | Aquacu | lture | overview |
|-------|------------|-------|--------|-------|----------|
|-------|------------|-------|--------|-------|----------|

| such variablesproductionarebeing(obviouslyadded.assumes) | tions MS, f Best |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------|
| Furthermore, once clarification is provided there is a high possibility that the enterprises will not be willing to sharing such information. | this |
| FinlandYesProduction, socialCensus (responseNobig challenges.There is a break in the time series.Finland collect through elect through elect90%), for economicNewFinland has re-datacol | ts data ronical llection |

| MS | Do you collect freshwater aquaculture data? | Which data do you collect? | Which methods of data collection do you use? | What challenges do you face with your data collection? (e.g. specific variables, return rates, etc.) | How to overcome these challenges ? | Recommendations for other MS, examples of Best Practice |
|--------|---------------------------------------------------------|----------------------------------------------------------------------|------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | economic data (all DCF data) | data missing data is estimated with regression. | segmentation is perhaps not ideal, Finland has a lot of combined production of food fish and juveniles. Now this cannot be identified in the new segmented data. | estimated some of the old data also with the new segmentation. | system called KASSI, including the database, which is working well. Data for environmental indicators are acquired from environmental permit system and database (YLVA) administered by Ministry of Environment. |
| Greece | yes | economic annually, socio and environmental every 3 years | census mostly with sample survey for environmental data | Regarding environmental data there is no available data on medicines due to | Trying to improve communication with companies to elevate the trust indicator in order to get some | |

| MS | Do you collect freshwater aquaculture data? | Which data do you collect? | Which methods of data collection do you use? | What challenges do you face with your data collection? (e.g. specific | How to overcome these challenges ? | Recommendations for other MS, examples of Best Practice |
|-------------|---------------------------------------------------------|-------------------------------|----------------------------------------------------|--------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------|
| | | | | variables, | | |
| | | | | return rates, | | |
| | | | | etc.) | data an madiair | |
| | | | | reluctance of | data on medicines | |
| | | | | companies, | in the future | |
| | | | | there is some | | |
| | | | | mortality data | | |
| | | | | on the other | | |
| | | | | hand. | | |
| The | No | | | Small number | Don't know | |
| Netherlands | | | | of operators, | | |
| | | | | low level of | | |
| | | | | cooperation | | |
| | | | | from the | | |
| | | | | industry, | | |
| Austria | not under | EUROSTAT- | (no collection | (no collection | (no collection | (no collection under |
| | DCF/EU | data on | under DCF) | under DCF) | under DCF) | DCF) |
| | MAP, | production and | | | | |
| | currently | value; | | | | |
| | - | administrative | | | | |

| MS | Do you collect freshwater aquaculture data? | Which data do you collect? | Which methods of data collection do you use? | What challenges do you face with your data collection? (e.g. specific variables, return rates, etc.) | How to overcome these challenges ? | Recommendations for other MS, examples of Best Practice |
|----|---------------------------------------------------------|-------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------|
| | pilot study in progress | data on employment | | | | |

| Latvia | There is only | The main | The population is | The | The data was | NA |
|--------|----------------|-------------------|---------------------|------------------|--------------------|----|
| | freshwater | activities of the | all enterprises | questionnaires | submitted in the | |
| | aquaculture | Latvian | whose primary | should be | frame of | |
| | in Latvia and | aquaculture | activity is defined | filled in by | Aquaculture data | |
| | there are no | enterprises are | according to | each company | call as one | |
| | net-cage | fish cultivation | EUROSTAT NACE | involved in | segment "Other | |
| | farms in sea | in freshwater | codes 03.21 and | commercial | methods Other | |
| | and fresh | earth ponds and | 03.22 and who | activity during | fresh water fish". | |
| | water sites. | land-based | operate for profit. | the sampling | | |
| | The | farms in special | Two types of | year. Due to | | |
| | freshwater | tanks and | statistic are | the small | | |
| | aquaculture | growing up for | collected: | number of the | | |
| | data is | market sale. | administrative | aquaculture | | |
| | collected from | Data on | statistic and SBS. | enterprises | | |
| | 2008. The | aquaculture in | The economic | collected data | | |
| | total volume | Latvia can be | variables are | can be | | |
| | and value of | obtained only | collected by | presented only | | |
| | freshwater | from | Central Statistical | as a 'total' and | | |
| | aquaculture | economically | Bureau of Latvia | not | | |
| | production in | active | (CSB) by state | disaggregated | | |
| | Latvia were | enterprises, | statistical | into categories | | |
| | less than 1% | which farm | form/questionnaire | by the number | | |
| | between 2008 | market size fish | "1-Aquaculture" | of persons | | |
| | and 2018 and | for sale or | for administrative | employed, as | | |
| | was around | produce young | statistic. For SBS | well as fishing | | |
| | 0.06% in | fish for | different state | techniques and | | |

| | | | | 1 | |
|---------------|-----------------|---------------------|---------|---|--|
| average from | restocking and | statistical | species | | |
| the total | on growing. | databases or other | groups. | | |
| Union | Common carp | information | | | |
| production | was the main | sources are used. | | | |
| reported to | species | Apart from | | | |
| EUROSTAT | produced by the | economic data the | | | |
| (according to | Latvian | "1-Aquaculture" | | | |
| the | aquaculture | questionnaire | | | |
| Regulation | sector | includes | | | |
| (EC) | representing | information on | | | |
| No762/2008). | 72% in weight | production by | | | |
| Although the | and 44% in | species in tonnes | | | |
| freshwater | value of total | and value, total | | | |
| aquaculture | production in | area of fish ponds, | | | |
| data | 2016. | volume of rearing | | | |
| collection is | | tanks and number | | | |
| not | | of employment as | | | |
| mandatory | | well as some of the | | | |
| (according to | | economic variable | | | |
| the | | from the Table 7 | | | |
| Commission | | (COM 2016/1251). | | | |
| Implementing | | Primary economic | | | |
| Decision | | information from | | | |
| 2016/1251 | | state statistical | | | |
| Chapter III | | form/questionnaire | | | |
| Data | | "1-Aquaculture" is | | | |
| Requirements | | received annually | | | |
| section 6) | | from owners of | | | |

| some | | fishing firms. | | |
|----------|---------|-----------------------|--|--|
| econor | nic and | Type of economic | | |
| social | | data collection for | | |
| variabl | les are | Latvian | | |
| collecte | ed. | aquaculture is | | |
| | | "Census". The | | |
| | | Response rate for | | |
| | | the collected data is | | |
| | | 100 %. | | |
| | | For the social data | | |
| | | collection, the | | |
| | | company that is the | | |
| | | European Society | | |
| | | for Opinion and | | |
| | | Market Research | | |
| | | (ESOMAR) | | |
| | | association | | |
| | | member and | | |
| | | specialized to carry | | |
| | | out regular public | | |
| | | opinion polls and | | |
| | | surveys on social, | | |
| | | economic and | | |
| | | political questions | | |
| | | have been chosen. | | |
| | | All data from Table | | |

| | | | 6 (COM 2016/1251) | | | |
|-------|----------------|------------------|---------------------------------------|----------------|---------|--|
| | | | vice collected The | | | |
| | | | was conected. The | | | |
| | | | type of data | | | |
| | | | collection was | | | |
| | | | census or 100% for | | | |
| | | | the coverage rate | | | |
| | | | with achieved | | | |
| | | | sample rate 21%. | | | |
| | | | I I I I I I I I I I I I I I I I I I I | | | |
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| | | | | | | |
| | | | | | | |
| Italy | Yes. Data | Economic data is | Census | In pilot | unknown | |
| | collection for | collected | | studies, | | |
| | Italy is | annually, | | obtaining | | |
| | focused on | collection of | | complete | | |
| | one species | social data may | | information | | |
| | trout farmed | be problematic | | for the sector | | |
| | in reconverse | e problemate | | oporatore has | | |
| | in faceways | | | operators has | | |
| | and tanks | | | been an issue | | |

| MS | Do you collect freshwater aquaculture data? | Which data do you collect? | Which methods of data collection do you use? | What challenges do you face with your data collection? (e.g. specific variables, return rates, etc.) | How to overcome these challenges ? | Recommendations for other MS, examples of Best Practice |
|----------|---------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Slovenia | No | | | | | |
| Denmark | Yes | Economic data is collected annually using a census and Social data is coming from national statistics | census | Separation from enterprise to the farm level can be a problem | unknown | |
| Germany | Yes, since 2017 | Economic annually and demographic data every three years. | Classic survey plus existing secondary data from agricultural statistics. National Labour register, Landing statistics. | Low response rate, thus insufficient representation of the sector, in particular addressing turnover, | Building up a network work of representative farms according to the typical farm approach as supplement of the already applied | If a standard survey on sample or census base is not feasible, a reference group of representative fish farms can provide a valid baseline to project the sector's situation. Germany's |

| MS | Do you collect freshwater aquaculture data? | Which data do you collect? | Which methods of data collection do you use? | What challenges do you face with your data collection? (e.g. specific variables, return rates, | How to overcome these challenges ? | Recommendations for other MS, examples of Best Practice |
|--------|---------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | etc.) | | |
| | | | | income and unpaid labour. | methods of data collection. | pilot studies infer that the typical farm approach is a promising tool for an efficient data collection. |
| France | Yes | | Questionnaire and register data, approximately 15- 20% sampling coverage | Insufficient representation, mainly large farms | | |
| UK | Yes | Production volume and employment (number, gender, FTE) by long-standing Census of all freshwater | Censuses - postal questionnaires and on-site interviews during aquatic animal health inspection audits. Non-probability sample survey - | All segments familiar with routine census so response ~ 100%. Challenge is poor response rate to more | Encourage responses by: conducting survey outside of busy period (summer = higher water temperatures); | Freshwater farms should already be authorised under Aquatic Animal Health Regulations, so details available (e.g. public register) and routine |

| MS | Do you collect freshwater aquaculture data? | Which data do you collect? | Which methods of data collection do you use? | What challenges do you face with your data collection? (e.g. specific variables, return rates, | How to overcome these challenges ? | Recommendations for other MS, examples of Best Practice |
|----|---------------------------------------------------------|-------------------------------|----------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|------------------------------------------|------------------------------------------------------------------|
| | | | | etc.) | . 1. | |
| | | segments. Other | postal | recent sample | providing pre- | inspections/visits |
| | | Economic | questionnaire. | survey as | paid envelopes | already conducted |
| | | variables by | | reliant on | and alternative | by competent |
| | | Non-Probability | | voluntary | response | authority. Aquatic |
| | | Sample Survey | | provision of | methods | animal health |
| | | of Trout | | intrusive data | (electronic/email); | authorisations likely |
| | | segment only. | | that is not | follow-up | to record species |
| | | Treatment & | | readily | communication. | held (produced) for |
| | | medicine use | | available. | Production | segmentation. |
| | | data by new | | Freshwater | reported by | Environmental |
| | | Census of all | | finfish | number can be | protection agencies |
| | | segments. | | aquaculture | converted to | also likely to have |
| | | - | | also typically | weight if | pre-existing records |
| | | | | differs to | stage/size known. | of freshwater farms |
| | | | | seawater as | | abstracting water / |
| | | | | companies are | | discharging |
| | | | | more | | effluents, with |

| MS | Do you collect freshwater aquaculture data? | Which data do you collect? | Which methods of data collection do you use? | What challenges do you face with your data collection? (e.g. specific variables, return rates, etc.) | How to overcome these challenges ? | Recommendations for other MS, examples of Best Practice |
|-----------|---------------------------------------------------------|-----------------------------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | numerous and typically small (rather than a few large companies operating over multiple sites). Freshwater production often reported by number of fish rather than weight due to smaller size. | | possible additional records (e.g. treatments). Possibly make provision of data on request a condition to receive EMFF funding. |
| Lithuania | Yes | employment, volume, value and production methods | Census | Low response rates, from small farms | Attaching funding to survey response has | |

| MS | Do you collect freshwater aquaculture data? | Which data do you collect? | Which methods of data collection do you use? | What challenges do you face with your data collection? (e.g. specific variables, return rates, etc.) | How to overcome these challenges ? | Recommendations for other MS, examples of Best Practice |
|----------|---------------------------------------------------------|------------------------------------------|----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------|------------------------------------------------------------------|
| | | | | | improved return rates | |
| Crotia | Yes | Volume and value for Eurostat | | Environmental collected, and th activities are separate | variables not ne division of main problematic to | |
| Bulgaria | Yes | Social data, value and volume data | Census | Collection of environmental data | | |
| Portugal | Yes | Production; Economics, Social | Census survey; Administrative register | Improve quality of the responses | Maintain data collection and improve data validation. | |

PGECON Report 2019

Annex VI - Definitions and methodologies for the socio-economic data described in EU-MAP

GUIDANCE DOCUMENT FOR THE FISHING FLEET, AQUACULTURE AND FISH PROCESSING SECTORS

Living document Living document Adapted from: Ad hoc contract Commitment No. SI2 725 694 Ref. Ares (2016)2440332 - 26/05/2016 Sabatella Evelina Carmen, 29 June 2016

Updated by: PGECON 2017 PGECON 2018 PGECON Workshop Small-scale fisheries, 2018 PGECON Workshop on social variables, Athens 2018

Table 1 Economic variables – Fishing fleet

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INCOME | Gross value of landings | Value of landings sold during the year | Control data (logbooks and sales notes) should be used where available and reliable; otherwise, sample surveys can be used. | Obtained directly from survey Derived from administrative sources or other surveyed variables. The data source is the official national statistics on landings |
| | Income from leasing out quota or other fishing rights | Totals invoiced during the reference period for leasing out quota or other fishing rights assigned to the related vessel and supplied to third parties | Two methods can be used | 1. Obtained directly from survey 2. Derived from other surveyed variables In case the trade (lease) information in terms of fishing rights is available from official sources, this information together with the average lease price can be used to calculate the variable. The average lease price would be collected through the survey. |
| | Other income | Totals invoiced during the reference period, corresponding to vessel activities other than fishing supplied to third parties. Insurance payment for damage/loss of gear/vessel should be included | Extraordinary and financial income should be excluded. | 1. Obtained directly from survey |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|-----------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| LABOUR COSTS | Personnel costs | Total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home-workers) in return for work done by the latter during the reference period. Personnel costs also include taxes and employees' social security contributions retained by the unit as well as the employer's compulsory and voluntary social contributions. People working only onshore and paid from vessels should be included if their activity has a direct link with the fishing operations. Employment on shore should include those activities, which directly related to small- scale fisheries and mostly carried out by fishers and their family members, but not entirely related | MS should consider how crew share is defined in the fishery, in case crew share based calculations are used. | Obtained directly from survey Derived from other surveyed variables In several fisheries, crewmembers are remunerated through share systems rather than having a fixed salary. In this case, personnel costs can be calculated as a % of revenue, or as a % of revenues minus costs. To correctly apply this method, it is necessary to define, for each fleet segment: • what is the approach used to calculate the share: as percentage of revenues or as percentage of revenues or as percentage of revenues - costs • what are the costs included to calculate the share: a share what is the percentage that goes to the crew • what is the percentage that goes to the crew • what is the percentage that goes • what is the percentage that goes • the crew • the crew • what is the percentage that goes • the crew • what is the percentage that goes • the crew • what is the percentage • the crew • the crew< |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|---------------------------|--------------------------------------------|-----------------------------|---------------------------------------------------|
| | | to other economic sectors and specialties. | | |
| | | | | 1 |
| | | | The estimation of the | 1. Derived from other surveyed |
| | | Imputed value of uppeid labour | labour was one issue | 2 ETE method (based on WC |
| | | Inputed value of unpaid labour. | discussed during the WS on | Naples 2011) that includes the |
| | | produces goods or services but is | calculating capital value | following steps: |
| | | unremunerated (OECD Glossary | using PIM and definition of | estimation of paid and unpaid |
| | Value of unpaid labour | of statistical terms). | DCF variables (Napoli, 13 - | FTE; |
| | | People working only on shore | 17 June 2011). Considering | • definition of an average |
| | | should be included only if their | difficulties encountered by | remuneration per paid FTE (e.g. |
| | | work is directly related to fishing | MS in estimating this | average wage by fleet |
| | | activity. | variable (recognized by | segment/company, national |
| | | | SGECA 10-03 and STECF | average wage, minimum national |
| | | | EWG 11-03), a specific ToR | wage, etc); |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|--------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | was added to clarify definitions and best practices for MS. The group agreed that the variable "imputed value of unpaid labour" should include the labour costs of all persons delivering unpaid labour. Based on the results of this workshop and comparing different experiences by MSs (as reported in NPs and ARs), it was suggested that the Value of unpaid labour can be estimated using the FTE method (method no.2) | • calculation of imputed value of unpaid labour = unpaid FTE * (average remuneration per paid FTE). |
| ENERGY COSTS | Energy costs | Purchases of all energy products during the reference period should be included in this variable only if they are purchased to be used as fuel. Energy products purchased as a raw material or for resale without | Note: as in the DCF, excluding lubrication oil. | Obtained directly from survey Derived from other surveyed variables Fuel cost could be calculated by multiplying the fuel consumption by the average fuel price, if fuel consumption is available |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|------------------------------------|------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|
| | | transformation should be excluded. Energy costs should be supplied as net costs, i.e. reduced by tax refunds | | |
| REPAIR AND MAINTENANCE COSTS | Repair and maintenance costs | The regular maintenance and repair of fixed assets used in production (items not treated as gross capital formation). Should refer only to vessel incl. equipment | | 1. Obtained directly from survey |
| OTHER OPERATING COSTS | Other variable costs | All purchased inputs (goods and services) related to fishing effort and/or catch/landings excluding energy costs, personnel costs, repair and maintenance costs. | Change variable name to "Other variable costs" to distinguish from other discriminated variable costs, such as energy, repair and maintenance, personnel costs, etc. | 1. Obtained directly from survey |
| | Other non- variable costs | Includes purchased inputs not related to the level of effort and/or catch/landings (including leased equipment). | Change variable name to "Other non-variable costs" to distinguish from other discriminated fixed costs | 1. Obtained directly from survey |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Lease/rental payments for quota or other fishing rights | Total purchases of "Lease/rental payments for quota or other fishing rights" | | 1. Obtained directly from survey 2. Derived from other surveyed variables In case the trade (lease) information in terms of fishing rights is available from official sources, this information together with the average lease price can be used to calculate the variable. The average lease price would be collected through the survey. |
| SUBSIDIES | Operating subsidies | Direct payments which general government or the institutions of the European Union make to resident producers. (ESA D.3). Refers to direct payments/transfers related to the vessel activity, except for: - Fuel tax refunds - Subsidies for permanent cessation of fishing activities - Investment subsidies (fleet modernization) | Administrative sources, if available, tend to be more precise and therefore are preferable. = DCF Direct subsidies | Obtained directly from survey Obtained from administrative sources (e.g. paying Agency, Local authority). The compilation of data on subsidies is based on official lists provided by national and regional administrations. These lists should be further elaborated to consider only payments that can be classified as operating subsidies (see definition). Each |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|--------------|------------------------------------|-------------------------------|------------------------------------------------------------------------------------------------------------------------|
| | | | | payment should be associated to one vessel. This link allows to report operating subsidies in fleet segments. |
| | | | Administrative sources, if | 1. Obtained directly from survey |
| | | | available, are more precise | 2. Obtained from administrative |
| | | | and meretore are preterable. | Local authority). |
| | | Direct payments which general | Investment subsidies refer to | |
| | | governments or the institutions of | permanent cessation or to | The compilation of data on |
| | Subsidies on | the European Union make to | fleet modernization. They | subsidies is based on official lists |
| | investments | resident producers to finance all | should not be included in | provided by national and |
| | (NEW) | or part of the costs of their | income (PGECON 2013). | regional administrations. These |
| | | vessel | In case of subsidies for | to consider only payments that |
| | | vessei. | permanent cessation of | can be classified as operating |
| | | | fishing activities of those | subsidies (see definition). Each |
| | | | fleets which have become | payment should be associated to |
| | | | inactive during the year, it | one vessel. This link allows to |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | must be decided if they can be classified in the segment of inactive vessel. | report operating subsidies in fleet segments. |
| CAPITAL COSTS | Consumption of fixed capital | Decline in value of vessel and equipment, as a result of normal wear and tear and obsolescence. = DCF Annual depreciation | Consumption of fixed capital (=Depreciation) represents the reduction in the value of the fixed assets used in production during the accounting period resulting from physical deterioration, normal obsolescence or normal accidental damage (EC study No. FISH/2005/03). | 1. Obtained directly from survey 2. Derived from other surveyed variables According to DCF legislation (2010/93/EU) depreciation should be calculated using the degressive depreciation scheme based on capital values estimated using replacement values (STECF 11-19, page 6) and included in the template model developed by EC study No. FISH/2005/03. The general assumptions |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------|------------|---------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GROUP | | | A PGECON WS is planned to compare methodologies and calibrate / update input data for the PIM. | proposed in the template model applies a degressive depreciation function and it assumes that engine is renovated every 10 years, electronics every 5 years, other equipment every 7 years and hull never. The share of each asset item in the total vessel price is 60% for hull, 20% for the engine and 10% for both electronics and other equipment. The rentals expected in future periods are discounting using a discount rate, which is the interest rate on long terms bond. However, as for the estimation of the Capital value based on the PIM method, the assumptions used in the template model represent only a general scheme that should be calibrated to the national situations. For the same reason the DCF Working Group Evaluation of data collection connected to Fishing Rights and |
| | | | | suggested to use alternative |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | approaches if accounting data (e.g. market value, book values) are available and can be easily derived by balance sheets. |
| CAPITAL VALUE | <mark>Value of</mark> physical capital | Depreciated replacement value of the vessel including on-board equipment with a useful lifetime of more than one year. | A workshop / study on best practices for calibrating the price per unit for each MS is needed (anticipated in late 2019) | 1. Obtained directly from survey 2. Derived from other surveyed variables The application of the Perpetual Inventory Method (PIM) performed through a template model developed by EC study No. FISH/2005/03 proposes to determine the aggregate value of the physical capital in the current year by aggregation of active fleets by age or vintage classes. Once the value of the capital goods in a given benchmark year has been determined, the capital value of each subsequent year is |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------|------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | calculated by adding investments of that year (gross capital formation), revaluing the existing stock and subtracting value of capital goods taken out of operation (Depreciation). As the aggregation is based on current prices, this method gives an estimate of the depreciation replacement capital value. However, the calculation of capital stock according to PIM is based on several assumptions, which are also closely linked to several variables such as investment, depreciation, capital cost, opportunity cost. The required input parameters and major assumptions are: Depreciation rates Share of capital components (hull, engine, electronics, other equipment) in total value Life time of each asset Price per Capacity Unit (PCU) |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------|------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | The determination of the PCU probably has the highest impact on the results. For this reason, to harmonize across MS, the Naples 2011 suggested a hierarchical order of preference for possible prices/values of a ship, as: 1. Price of new constructed vessel; 2. 2nd hand price or insurance value of the current year; 3. Book value; 4. Scrapping value; 5. Other values (e.g. specific surveys to ask for an estimate of the current value of a vessel with certain characteristics in case previous indicators cannot be observed). |
| | | | | The assumptions made in the study No. FISH/2005/03 represent in fact only a general scheme in order to provide a calculation tool. This general scheme should |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------|------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | be changed and calibrated according to the specific needs of each country and to other empirical information, for example collected from Company accounts, Statistical surveys, Expert advice, European System of Integrated Economic Accounts (ESA). Taking into account that the input parameters of the PIM method are difficult to determine and could vary over time, the DCF WG on Evaluation of data collection connected to Fishing Rights and Capital Costs (18 - 22 November 2013, Gothenburg) recommended to make use of alternative methods for the estimation of capital value of vessels when accounting data are available. However, STECF 10-09 also considered that the use of book value in order to estimate capital value and capital costs will |
| | | | | limit the use of data to a fiscal |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | accounting analysis more than to an economic valuation. |
| | Value of quota and other fishing rights | The current value of the right to exploit fishing grounds over more than one year. To be collected only when fishing rights are tradable and thus data on the value of fishing rights are available. | A specific study and review of the methods applied is needed To be updated with the SECFISH project | 1. Obtained directly from survey 2. Derived from other surveyed variables Tradable intangibles should be valued at current market price (or a multi-year average), independently of the question whether they have or have not been acquired or whether they are or are not linked to specific tangible (e.g. vessel). |
| INVESTMENTS | Investments in tangible assets net | Gross investment in vessel and on-board equipment minus sales of (vessel and) on-board equipment. | PGECON suggests to use variables directly from survey. In case PIM method is used investment should be estimated from PIM method in order to ensure consistency with other variables. | Obtained directly from survey Estimated from PIM method (it is not clear if this is being used by any MS, but it should be available from there) Obtained from administrative sources |
| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-----------------------|---------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | Gross investments in tangible assets = Purchases minus sales 'Net' should be removed from the variable name to avoid confusion with financial accounting net investments, which refers to investments minus depreciation. Investments here should not include depreciation | |
| FINANCIAL POSITION | <mark>Long/short Debt</mark> (New) | Amount of money borrowed to be used to finance ongoing vessel activities including value of quota and other fishing rights. Excludes finance obtained for land-based business activities. | Variable name is ambiguous and should be changed to Gross debt. | 1. Obtained directly from surveyBalance sheets are considered themost reliable source of data fordebts (MSs that derived the valueof debts from questionnairesexperienced a very poor qualityofresponses).When balance sheets areavailable, value of long/shortdebts have to be split by vessel,according to the capital value ofeach vessel estimated trough thePIM which is used to "weigh" theshare on the total value. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------|------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | On the other hand, to estimate this variable when balance sheets are not available, the methodology is: 1. To estimate the financial position as the ratio total debt/total value of assets 2. To use the value of capital (deriving from the PIM) as a proxy for total value of assets (it is important to bear in mind that the PIM value refers only to physical capital). 3. To derive the value of long/short term debts (sum) multiplying the financial position ratio (estimated in 1) by the value of assets (estimated in 2). |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|-----------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Total assets (New) | "Balance sheet total", fixed assets and financial assets. It is essential that the two item of the ratio (debts and total asset) should be consistent. For example, if debts refer only to physical capital, the denominator (total asset) should refer to the physical capital as well. If debts comes from balance sheets and refer to the overall fishing activity, the total assets should be derived from balance sheets as well. | | 1. Obtained directly from survey Balance sheets are considered the most reliable source of data for total assets (MSs that derived the value of debts from questionnaires experienced a very poor quality of responses). To split the total (company) value of assets in case the company owns more than one vessel, the capital value of each vessel estimated trough the PIM could be used to "weight" the share on the total value. In case balance sheets are not available, estimation methodology of value of capital and value of debts have to be in line and derived from the PIM. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| EMPLOYMENT | Engaged crew | Total number of persons who have worked on-board the vessel, irrespective of the total number of hours. People working only onshore and paid from vessels should be included if their activity has a direct link with the fishing operations. Employment on shore should include those activities, which directly related to small- scale fisheries and mostly carried out by fishers and their family members, but not entirely related to other economic sectors and specialties. | Currently, includes unpaid labour as the term 'Engaged crew' implies. Propose to change variable to Paid Labour (and update definition to exclude unpaid labour) The total number of persons should be estimated as an annual average (consistent with the DCF). To be discussed at the next PGECON meeting | 1. Obtained directly from survey |
| | Unpaid labour (New) | Number of engaged crew that have not received compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind. | | Obtained directly from survey Derived from other surveyed variables |
| | FTE National | The <mark>number of crew converted</mark> into full time equivalent jobs (FTE). | From 2017 onwards, FTE falls under social variables (EUMAP). PGECON | 1. Derived from other surveyed variables FTE definition: unit expressing |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------|------------------------------------|---------------------------------|---------------------------------------|
| | | People working only onshore and | recommends to keep FTE | the number of employees into |
| | | paid from vessels should be | national as economic | full-time workers (usually |
| | | included if their activity has a | variable in the fleet data call | defined in the national law). |
| | | direct link with the fishing | to guarantee annual data (as | Appendix VI of the current |
| | | operations. Employment on shore | in DCF). | regulation refers, in note 17 and |
| | | should include those activities, | | 18 to the study "Calculation of |
| | | which directly related to small- | | labour including full-time |
| | | scale fisheries and mostly carried | | equivalent (FTE) in fisheries" |
| | | out by fishers and their family | | (FISH/2005/14, 'LEI |
| | | members, but not entirely related | | WAGENINGENUR Coordinator, |
| | | to other economic sectors and | | 2006), financed by EU in order to |
| | | specialties. | | harmonise the definition and the |
| | | | | estimation of employment |
| | | | | variables under the data |
| | | | | collection system. |
| | | | | According to that study, the |
| | | | | estimation of the FTE should be |
| | | | | done by using a threshold |
| | | | | representing the total number of |
| | | | | hours worked, on a standard and |
| | | | | yearly basis, by a full-time worker |
| | | | | in the fishery sector. The study |
| | | | | was based on the estimation of |
| | | | | the engaged crew and of the FTE |
| | | | | at métier level in order to trace the |
| | | | | reality of labour input in fishing |
| | | | | as closely as possible. This |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------|------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | approach was mainly because: - at the time of the study, there were discussions at the STECF, about the possibilities to collect, under the revised DCR, economic data at métiers level; - "different fisheries may be characterised by different labour intensities and consequently by different levels of labour productivity. This is an important aspect of economic analysis; using métiers in general improves the analytical understanding of the operation of the various fleets". |
| | | | | The concept of metier has been not introduced in the collection of economic data but the general approach on the definition of FTE, in particular on the definition of the yearly threshold (time-based approach), has been largely |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------|------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | applied under the DCF. According to the study, a person working more than the threshold (holding one or more jobs) is still counted as one FTE only. A person working less than the threshold represents a certain percentage of a FTE. FTE national should be calculated using a threshold defined according to the features of the fishery sector in each MS. If the annual working hours per crewmember exceed the reference level, the FTE equals 1 per crewmember. - if annual working hours > national threshold, then FTE national =1 If not, the FTE equals the ratio between the hours worked and the reference level. - if annual working hours < national threshold, then FTE national threshold, then FTE national threshold, then FTE |
| | | | | |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | In segments where this assumption (the annual working hours per crewmember exceed the reference level (the FTE equals 1 per crewmember) is not valid and an additional adjustment of the calculation may be required, if it can be expected that the result will be significantly affected (Study No FISH/2005/14). |
| | <mark>Total hours</mark> worked per year (New) | The aggregate number of hours worked by the engaged crew during the reference period. People working only onshore and paid from vessels should be included if their activity has a direct link with the fishing operations. Employment on shore should include those activities, which directly related to small- scale fisheries and mostly carried out by fishers and their family members, but not entirely related | Note that for Engaged crew, hours worked includes paid and unpaid labour as well as onshore labour with a direct link with the fishing operations. If engaged crew is changed to paid labour, specification needs to be updated (hours worked by paid and unpaid labour) | 1. Obtained directly from survey 2. Derived from other surveyed variables Calculated based on effort, number of vessels and average crew number. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|-------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------|
| | | to other economic sectors and specialties. | | |
| | Number of vessels | Number of vessels in the EU Fishing Fleet Register on December 31st plus the number of vessels, which have been involved in any fishing activity during the year and have left the Fleet Register prior to year-end. | | 1. Obtained from the Fleet register |
| FLEET | Mean LOA of vessels | Average vessel length overall | | 1. Obtained from the Fleet register |
| | Total vessel tonnage | Sum of the tonnage of the vessels | | 1. Obtained from the Fleet register |
| | Total vessel power | Sum of the power of the main engines of the vessels | | 1. Obtained from the Fleet register |
| | Mean age of vessels | Average vessel age | | 1. Obtained from the Fleet register |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|-----------------------|---------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EFFORT | Days at sea | To be aligned with the definition of the respective transversal variable. | For the small-scale fleet vessels less than 10 meters, it could be assumed that 1 Day at Sea is equivalent to 1 Fishing Day as far as no other data contradicts this hypothesis. Nevertheless, this assumption has to be assessed regionally by fishery, as significant differences can occur between them. | 1. Obtained from logbooks 2. Obtained directly from survey |
| | Energy consumption | Volume of vessel fuel consumed in litres | PGECON could not define preferred method as it depends on the national context. | Obtained directly from survey Obtained from administrative sources (e.g. in case tax exemptions are used in the country) Derived from other surveyed variables Regression models could be used by some MS (regression models using 'engine power', 'days at sea' and 'coefficient of fuel consumption by engine power') |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-----------------------------------------------|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------|
| NUMBER OF FISHING ENTERPRISES /UNITS | Number of fishing enterprises/units | Numberoffishingenterprises/units in ownership ofthe respective number of vessels.This refers to the fleet as a whole,nottofleetsegments.Bysize-1ownedvessel-2-5ownedvessels-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowned-Sowne | | 1. Obtained from the Fleet register |
| PRODUCTION VALUE PER SPECIES | Value of landings per species | Value of landings per species | To be aligned with the definition of the respective transversal variable. | |
| | Average price per species | Gross value of landings per kilogram live weight | To be aligned with the definition of the respective transversal variables. This variable can be derived from the weight and value of landings (as in the DCF) and therefore, no need to be requested | |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INCOME | Gross sales per species | Value of output from aquaculture sold during the year = DCF Turnover | MS should avoid duplication of data collection. What does this mean exactly? If "juveniles" (i.e., fish from hatcheries) are sold to another company they should be accounted. So, if the buying company then sales them at a later stage, the fish shall be counted twice. | Obtained directly from survey (from enterprise, or producer organisation). Derived from other surveyed variables. Production data collected for EUROSTAT should be used. Calculated as weight of sales multiplied by unit price and summed to observation unit. |
| | Other income | Other operating income included in company accounts which are excluded from turnover; income coming from other activities than aquaculture, e.g. the licensing of ponds for recreational fishery purposes. Other | More clarification needed on what Commission wants us to collect. Main activity companies/should we exclude other things than aquaculture | 1. Obtained directly from survey "Other income" refers to other operating income included in company accounts which are excluded from turnover; income coming from other activities than aquaculture, e.g. the licensing of ponds for recreational fishery purposes Other income, not shown under other headings. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|--------------------|--------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|--------------------------------------------------------|
| | | <pre>income, not shown under other headings. Exclude extraordinary and financial incomes. = DCF Other income</pre> | | Extraordinary and financial income should be excluded. |
| PERSONNEL COSTS | Personnel costs | Personnel costs are defined as the total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home- workers) in return for work done by the latter during the reference period. Personnel costs also include taxes and employees' social security contributions retained by the unit as well as the employer's compulsory and voluntary social contributions. = DCF Wages and Salaries | | 1. Obtained directly from survey |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Value of unpaid labour | Unpaid labour = Work that produces goods or services but is unremunerated. = DCF Imputed value of unpaid labour | Still there is a broad range of options to determine the average wage. If the number of unpaid labour is collected, then the imputed wage per FTE would be sufficient to calculate the value of unpaid labour | Derived from other surveyed variables FTE method (WS, Naples, 2009), that includes the following steps: estimation of paid and unpaid FTE; definition of an average remuneration per paid FTE (e.g. average wage by fleet segment/company, national average wage, minimum national wage, etc); calculation of imputed value of unpaid labour = unpaid FTE * (average remuneration per paid FTE * (average remuneration per paid FTE). |
| ENERGY COSTS | Energy costs | Purchases of all energy products during the reference period should be included in this variable only if they are purchased to be used as fuel. Energy products purchased as a raw material or for resale | The livestock costs should correspond to the variable livestock volume. In the Structural Business Statistics it is included inside 13 11 0 "Total purchases of goods and services". | 1. Obtained directly from survey |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-----------------------------|-----------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------|
| | | without transformation should be excluded | | |
| REPAIR AND MAINTENANCE | Repair and maintenance | The regular maintenance and repair of fixed assets used in production (items not treated as gross capital formation) | | 1. Obtained directly from survey |
| OTHER OPERATING COSTS | Other operating costs | Other operating costs should comprise outsourcing costs, property or equipment rental charges, the cost of raw materials and supplies that cannot be held in the inventory and have not been already specified (i.e. water, small items of equipment, administrative supplies, etc.), insurance premiums, studies and research costs, external personnel charges, fees payable to intermediaries and professional expenses, advertising costs, transportation charges, travel expenses, the costs of meetings | | 1. Obtained directly from survey |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|--------------------------|------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | and receptions, postal charges, bank charges (but not interest on bank loans) and other items of expenditure. On the Structural Business Statistics is included inside 13 11 0 "Total purchases of goods and services". | | |
| RAW MATERIAL COSTS | Livestock costs | Costs of livestock during the year. | | Obtained directly from survey Derived from other surveyed variables Could be derived from number of stock and unit price of seed/juveniles, etc. |
| | Feed costs | Costs of feed used for aquaculture production during the year. | | Obtained directly from survey Derived from other surveyed variables Could be derived from feed consumption per unit of production and feed price. |
| SUBSIDIES | Operating subsidies | Direct payments which general government or the institutions of the European Union make to | Administrative sources, if available, are more precise and therefore are preferable. | Obtained directly from survey Obtained from administrative sources (e.g. paying Agency, Local authority, grants, etc.) |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|-------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | resident producers. Excluding investment subsidies. = DCF Subsidies | | The compilation of data on subsidies is based on the official lists provided by national and regional administrations. These lists should be further elaborate to consider only payments that can be classified as operating subsidies (see definition). Each payment has to be associated with aquaculture enterprise. This link allows to report operating subsidies aquaculture. |
| | Subsidies on investments <mark>New</mark> | Direct payments which general government or the institutions of the European Union make to resident producers to finance all or part of the costs of their acquiring assets. | Administrative sources, if available, are more precise and therefore are preferable. | Obtained directly from survey. Obtained from administrative sources (e.g. paying Agency, Local authority, grants, etc.) Investment subsidies refer to modernization of existing and construction of new facilities (see more in definitions). The compilation of data on subsidies is based on the official lists provided by national and regional administrations. These lists should be further elaborate to consider only payments that can be classified as subsidies on investments (see definition). |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | Each payment has to associated with aquaculture enterprise. This link allows to report operating subsidies by aquaculture segment. |
| CAPITAL COSTS | Consumption of fixed capital | Decline in value of fixed assets, as a result of normal wear and tear and obsolescence. The estimate of decline in value includes a provision for losses of fixed assets as a result of accidental damage which can be insured against. = DCF Depreciation of capital | It is not clear which is the benefit of switching from "depreciation" to "consumption of fixed capital" - the concepts are somewhat different (see 3.141) | 1. Obtained directly from survey Represents the reduction in the value of the fixed assets used in production during the accounting period resulting from physical deterioration, normal obsolescence or normal accidental damage (EC study No. FISH/2005/03). |
| CAPITAL VALUE | Total value of assets | An economic asset is a store of value representing the benefits accruing to the economic owner by holding or using the entity over a period of time. It is a means of carrying forward value from one accounting period to another. = DCF Total value of assets | | 1. Obtained directly from survey |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|----------------------|---------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | Obtained directly from survey Should consider: Income from participating |
| FINANCIAL RESULTS | Financial income | Income from investments and loans forming part of the fixed assets, and other interest receivable. Financial costs, net = Financial expenditures – Financial income | | Income from participating interests, with a separate indication of that derived from affiliated undertakings. Income from other investments and loans forming part of the fixed assets, with a separate indication of that derived from affiliated undertakings. |
| | | | | Other interest receivable and similar income, with a separate indication of that derived from affiliated undertakings. |
| | Financial expenditures | Interest payable and similar charges. Financial costs, net = Financial expenditures – Financial income | | 1. Obtained directly from survey Considers the Interest payable and similar charges, with a separate indication of those concerning affiliated undertakings. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INVESTMENTS | Net investments | Net Investments "Purchase and sale of assets during the year" Gross investment in tangible and intangible goods minus sales of tangible and intangible investment goods. | Gross investments = Purchases minus sales Net should be removed from the variable name to avoid confusion with financial accounting net investments, which refers to investments minus depreciation. Investments here should not include depreciation Tangible goods defined in SBS 15 11 0 and intangible goods defined in SBS 15 42 0 and SBS 15 44 1, tangible investment goods defined in 15 210. | 1. Obtained directly from survey "Purchase and sale of assets during the year" Investment during the reference period in all tangible goods. Included are new and existing tangible capital goods, whether bought from third parties, acquired under a financial lease contract (i.e. the right to use a durable good in exchange for rental payments over a predetermined and protracted term) or produced for own use (i.e. Capitalised production of tangible capital goods), having a useful life of more than one year including non-produced tangible goods such as land. The threshold for the useful life of a good that can be capitalised may be increased according to company accounting practices where these practices require a greater expected useful life than the 1 year threshold indicated above. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------|------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | All investments are valued prior to (i.e. gross of) value adjustments, and before the deduction of income from disposals. Purchased goods are valued at purchase price, i.e. transport and installation charges, fees, taxes and other costs of ownership transfer are included. The value of goods acquired via financial lease corresponds to the market value of the good if it had been purchased in the year of acquisition only. This value is in principle known in the contract or can be estimated by summing-up the part of the instalments that cover the capital reimbursement. The part of instalments corresponding to the interest payments are to be excluded. Own produced tangible goods are valued at production cost. Goods acquired through restructuration (such as mergers, take- overs, break-ups, split-off) are excluded. Purchases of small tools which are not capitalised are included under current expenditure. |
| | | | | value of existing tangible capital goods, |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|---------------------------|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | sold to third parties. Sales of tangible capital goods are valued at the price actually received (excluding VAT), and not at book value, after deducting any costs of ownership transfer incurred by the seller. Value adjustments and disposals other than by sale are excluded |
| DEBT | Debt | Amount of money borrowed to be used to finance activities of the aquaculture enterprise. | | 1. Obtained directly from survey |
| RAW MATERIAL WEIGHT | Livestock used | Weight of purchased livestock that is meant for production, includes purchase of breeding stocks. Livestock refers to all fish and aquatic species kept or reared in captivity mainly for aqua cultural purposes. = DCF Raw material volume: Livestock | Unclear whether this variable should include only the livestock purchased during the year. Suggestion to amend variable name to: Livestock purchased | Obtained directly from survey Derived from other surveyed variables Could be derived from total production weight/numbers and estimates of mortalities. |
| | Fish Feed used | Quantities of feed used for fish and other aquatic species for aquaculture production. | | Obtained directly from survey Derived from other surveyed variables |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|--------------------------------|-----------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|
| | | = DCF Raw material volume: Feed | | Could be derived from technical guides and total livestock number. |
| Weight of sales per species | | Volume of output from aquaculture sold during the year, including production from hatcheries and nurseries offered for sale = DCF Total sales volume | | |
| EMPLOYMENT | Number of <mark>persons</mark> employed | Total number of persons who have worked in the enterprise, irrespective of the total number of hours. Total employees = Persons employed + unpaid labour | Propose to rename to Paid persons employed or Paid labour (as in Fleet) | 1. Obtained directly from survey |
| | Unpaid labour (Number) | Number of persons who have worked for the enterprise that have not received compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind. | | Obtained directly from survey Derived from other surveyed variables |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | Total employees = Persons employed + unpaid labour | | |
| | Persons employed (FTE) | Unit expressing the number of employees into full-time workers (usually defined in the national law) (definti Fleet) Total FTE = Persons employed (FTE) + unpaid labour (FTE) | | Derived from other surveyed variables FTE national should be calculated using a threshold defined according to the features of the sector in each MSs (i.e., FTE national) If the annual working hours per employee exceed the reference level, the FTE equals 1 per employee. if annual working hours>national threshold, then FTE national =1 If not, the FTE equals the ratio between the hours worked and the reference level. if annual working hours<national fte="" national="1</li" then="" threshold,=""> </national> |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|--------------------------|---------------------------|--------------------------------------------|------------------------------|---------------------------------------|
| | | Number of persons who have | | 1. Obtained directly from survey |
| | | worked for the enterprise that | | 2. Derived from other surveyed |
| | Unpaid | have not received | | variables |
| | labour (FTE) | compensation in the form of | | |
| | | wages, salaries, iees, gratuities, | | FIE = Persons employed (FIE) + unpaid |
| | | remuneration in kind. | | laboul (FTE) |
| | Number of | | | 1. Obtained directly from survey |
| | hours worked | The aggregate number of hours | | 2. Derived from other surveyed |
| | by employees | worked (<mark>by total employees</mark>) | | variables |
| | and unpaid | during the reference period. | | Could be estimated from |
| | workers <mark> New</mark> | | | days/weeks/months worked, or other |
| | | | | variables |
| | | | Variables should be | 1. Obtained directly from Business |
| NUMBER OF ENTERPRISES | Number of | Number of aquaculture | renamed: | Register or |
| | enterprises | enterprises in each size | "Number of enterprises by | 2. Derived from other |
| | (by category | category (in terms of number of | size category" | Administrative sources (license |
| | on the | persons employed). | Suggested categories: ≤5; 6- | list if exists) |
| | number of | Number of enterprises (by | 10 and >10 FTE | |
| | persons | category on the number of | | |
| | employed) | persons employed) | | |
| | | | | |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|--------------------------------------------|----------|------------|---------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Medicines or treatments administered | | | | Extrapolated from data recorded under Annex I, point 8(b), of Regulation(EC) No 852/2004 of the European Parliament and of the Council (OJ L 139, 30.4.2004, p. 1). A list should be made available (to ensure consistency in reporting). |
| Mortalities | | | | Extrapolated as a percentage of national production from data recorded under Council Directive 2006/88/EC (OJ L 328, 24.11.2006, p. 14), Article 8, Paragraph 1(b). |

Table 2b: Environmental variables for the aquaculture sector

Table 3 Economic variables – Fish processing sector

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| INCOME | Turnover | Turnover comprises the totals invoiced by the observation unit during the reference period, and this corresponds to market sales of goods or services supplied to third parties. Turnover includes all duties and taxes on the goods or services invoiced by the unit with the exception of the VAT invoiced by the unit vis-à- vis its customer and other similar deductible taxes directly linked to turnover. It also includes all other charges (transport, packaging, etc.) passed on to the customer, even if these charges are listed separately in the invoice. Reduction in prices, rebates and discounts as well as the value of | Two surveys have to be used for different parts of population Not clear if this is the procedure for all MS (i.e., to use SBS data +complementary survey) | For the segments with "main" fish processing activities, "Turnover" variable, should include only Turnover related to the principal fish processing activity. For the part of population covered by SBS directly obtained from SBS survey. For the part of population not covered by SBS directly obtained from DCF survey; obtained directly from administrative sources |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|--------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | returned packing must be deducted. For the segments with "main" fish processing activities, "Turnover" variable, should include only Turnover related to the principal fish processing activity. = DCF Turnover | | |
| | Other income | Other operating income included in company accounts, which are excluded from turnover; income coming from other activities than fish processing. Other income, not shown under other headings. Exclude extraordinary and financial incomes. Under "Other income" all the other revenues from other activities apart from | Two surveys have to be used for different parts of population | Under "Other income" all the other revenues from other activities apart from fish processing should be provided. For the part of population covered by SBS 1. derived from other SBS variables. Turnover in SBS includes turnover from principal activity, other incomes and subsidies. Therefore, other income should be calculated as following: Other income = Turnover – turnover from principal activity – subsidies. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|--------------------|--------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | fish processing should be provided. = DCF Other income | | Other income also includes financial income, which is a separate variable in DCF. Therefore, a method for disseminating other income from financial income should be defined. 2. Directly obtained from additional DCF survey. For the part of population not covered by SBS 3. directly obtained from DCF survey |
| Personnel Costs | Personnel costs | Total remuneration, in cash or in kind, payable by an employer to an employee (regular and temporary employees as well as home-workers) in return for work done by the latter during the reference period. Personnel costs also include taxes and employees' social security contributions retained by the unit as well as the employer's compulsory | Two surveys have to be used for different parts of population. | For the part of population covered by SBS: 1. directly obtained from SBS survey . For the part of population not covered by SBS: 2. directly obtained from DCF survey Derived from other surveyed variables (e.g. costs structure). |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|---------------------------|--------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | and voluntary social contributions. = DCF Wages and salaries | | |
| | Value of unpaid labour | = DCF Imputed value of unpaid labour | Still there is a broad range of options to determine the average wage. If the number of unpaid labour is collected, then the imputed wage per FTE would be sufficient to calculate the value of unpaid labour | For the part of population covered by SBS the unpaid labour costs are equal to 0 as it is legally binding to employ all persons working in the bigger enterprises. For the part of the population not covered by SBS: derived from other surveyed variables. FTE method (WS, Naples, 2009), includes the following steps: estimation of paid and unpaid FTE; definition of an average remuneration per paid FTE (e.g. average wage by company, national average wage, minimum national wage, etc); |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | calculation of imputed value of unpaid labour =: unpaid FTE * (average remuneration per paid FTE). Other methods based on number of enterprises? |
| | Payment for external agency workers (optional) | Included are payments to temporary employment agencies and similar organisations supplying workers to clients' businesses for limited periods of time to supplement or temporarily replace the working force of the client, where the individuals provided are employees of the temporary help service unit. However, these agencies and organisations do not provide direct supervision of their employees at the clients' work sites. Only the payments for the provision of personnel which is not | | For the part of population covered by SBS directly obtained from SBS survey (optional). For the part of population not covered by SBS: directly obtained from DCF survey, derived from other surveyed variables. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-----------------------|-----------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | linked to the provision of a particular industrial or other non-industrial service is included. | | |
| Energy costs | Energy costs | Purchases of all energy products during the reference period should be included in this variable only if they are purchased to be used as fuel. Energy products purchased as a raw material or for resale without transformation should be excluded. This figure should be given in value only. | | For the part of population covered by SBS, directly obtained from SBS survey (optional). For the part of population not covered by SBS: directly obtained from DCF survey, derived from other surveyed variables. |
| Raw material costs | Purchase of fish and other raw material for production | Total purchases of fish and other raw material for production. Purchases of fish and other raw material for production include the value of fish and other raw material for production | SBS data should be preferred, but in case dissemination methods are not possible, data from surveys should be used for all processing enterprises. | For the part of population covered by SBS: 1. directly obtained from SBS survey . However, these costs in SBS are combined under "Total purchases of goods and services", including financial and extraordinary costs. Therefore, a dissemination method |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------------------|-------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | purchased during the accounting period for resale or consumption in the production process, excluding capital goods the consumption of which is registered as consumption of fixed capital. The fish and other raw material concerned may be either resold with or without further transformation, completely used up in the production process or, finally, be stocked. | Should be re-named "other operating costs" | should be applied for calculating raw material and other operating costs: (Raw material + Other operational costs) = Total purchases of goods and services – Financial costs – extraordinary costs; Because all of these Variables are also included in DCF, dissemination is very problematic. 2. directly obtained from additional DCF survey For the part of population not covered by SBS: 3. directly obtained from DCF survey, |
| Other operational costs | Other operational costs | Total purchases of goods and services minus Purchase of fish and other raw material for production. Purchases of goods and services include the value of all goods and services purchased during the accounting period for resale or consumption in the production process, | | 4. derived from other surveyed variables. Total purchases of goods and services minus Purchase of fish and other raw material for production. Purchases of goods and services include the value of all goods and services purchased during the accounting period for resale or consumption in the production process, excluding capital goods the consumption of which is registered as consumption of fixed |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | excluding capital goods the consumption of which is registered as consumption of fixed capital. The goods and services concerned may be either resold with or without further transformation, completely used up in the production process or, finally, be stocked. | | capital. The goods and services concerned may be either resold with or without further transformation, completely used up in the production process or, finally, be stocked. |
| Subsidies | Operating subsidies | Direct payments which general government or the institutions of the European Union make to resident producers. Excluding investment subsidies. | Subsidies could be derived from SBS by disseminating Turnover, however because of a complex structure of SBS turnover, data from national and regional administrations for the whole processing sector, should be used, in preference to direct survey. This in turn will help to derive turnover and other income more precisely. | For the part of population covered by SBS: 1. directly obtained from SBS survey. However, data is aggregated under Turnover, complete with turnover from principal activities, other income, and financial income. Therefore, it should be disseminated. 2. directly obtained from additional DCF survey; 3. obtained directly from administrative sources |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Subsidies on investments New | Direct payments which general government or the institutions of the European Union make to resident producers to finance all or part of the costs of their acquiring assets. | | For the part of population not covered by SBS: 4. directly obtained from DCF survey, 5. derived from other surveyed variables. 6. obtained directly from administrative sources Direct payments which general government or the institutions of the European Union make to resident producers to finance all or part of the costs of their acquiring assets. |
| Capital costs | Consumption of fixed capital | Decline in value of fixed assets, as a result of normal wear and tear and obsolescence. The estimate of decline in value includes a provision for losses of fixed assets as a result of | | There is no data on capital costs or capital value in SBS.For all processing enterprises capital cost and capital value could be obtained:1. directly obtained from DCF survey; |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|----------------------|--------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | accidental damage which can be insured against. =DCF Depreciation of capital | | 2. derived from other surveyed variables or from PIM calculations. 3. By calculating capital value and capital costs by PIM. |
| Capital value | Total value of assets | An economic asset is a store of value representing the benefits accruing to the economic owner by holding or using the entity over a period of time. It is a means of carrying forward value from one accounting period to another. | | |
| Financial results | Financial income | Income from investments and loans forming part of the fixed assets, and other interest receivable. Financial costs, net = Financial expenditures – Financial income | Two surveys have to be used for different parts of population. | For the part of population covered by SBS: 1. directly obtained from SBS survey . however financial income is combined under Turnover. Therefore, to get data on financial income, a method of dissemination should be used: Turnover – Turnover from main activity – subsidies – other income. |
| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|---------------------------|--------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | However, dividing financial and other income could be a problem. 2. directly obtained from additional DCF survey ; 3. derived from other surveyed variables. |
| | | | | For the part of population not covered by SBS: 4. directly obtained from DCF survey, 5. derived from other surveyed variables. |
| | Financial expenditures | Interest payable and similar charges. Financial costs, net = Financial expenditures – Financial income | | For the part of population covered by SBS: 1. directly obtained from SBS survey. However financial expenditures in SBS is under Total purchases of goods and services, which also includes raw material, other operational costs and extraordinary costs, therefore a method for discriminating financial expenditures should be devised; 2. directly obtained from additional DCF survey 3. derived from other surveyed variables. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|---------------------------------|------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | For the part of population not covered by SBS: 4. directly obtained from DCF survey, 5. derived from other surveyed variables. |
| Investments | <mark>Net</mark> Investments | Gross investment in tangible and intangible goods minus sales of tangible and intangible investment goods. | Two surveys have to be used for different parts of population. Tangible goods defined in SBS 15 11 0 and intangible goods defined in SBS 15 42 0 and SBS 15 44 1, tangible investment goods defined in 15 210. Rename to Gross investments = Purchases minus sales Net should be removed from the variable name to avoid confusion with financial accounting net investments, which refers to investments minus depreciation. | For the part of population covered by SBS: 1. directly obtained from SBS survey. By subtracting sales of tangible investments goods from Gross investments in tangible goods 2. directly obtained from additional DCF survey. For the part of population not covered by SBS: 3. directly obtained from DCF survey, derived from other surveyed variables. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Debt | Debt | Amount of money borrowed to be used to finance activities of the processing enterprise. | No data coverage in SBS | For all processing sector enterprises Debt could be: 1. directly obtained from additional DCF survey. 2. derived from other surveyed variables. |
| Employment | Number of persons employed | Total number of persons who have worked in the enterprise, irrespective of the total number of hours. | <mark>Does it include unpaid</mark> <mark>labour?</mark> | For the part of population covered by SBS: 1. directly obtained from SBS survey. However, SBS are not discriminated according to the gender. 2. directly obtained from DCF survey, 3. obtained directly from administrative sources For the part of population not covered by SBS: 4. directly obtained from DCF survey, 5. derived from other surveyed variables. |
| | Unpaid labour | Number of persons who have worked for the enterprise that have not received compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind. | | For all processing sector enterprises unpaid labour could be: 1. directly obtained from DCF survey, 2. derived from other surveyed variables. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|--------------|-------------------------------------------------------------------------------|---------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | FTE National | The number of employees converted into full time equivalent jobs (FTE). | | For the part of population covered by SBS: 1. directly obtained from SBS survey. FTE far all processing sector: FTE definition: unit expressing the total number of employees into the equivalent number of full-time workers (usually defined in the national law). Appendix VI of the current regulation refers, in note 17 and 18 to the study "Calculation of labour including full-time equivalent (FTE) in fisheries"(FISH/2005/14, 'LEI WAGENINGENUR Coordinator, 2006), financed by EU in order to harmonise the definition and the estimation of employment variables under the data collection system. General approach on the definition of FTE, in particular on the definition of the yearly threshold (time-based approach), has been largely applied under the DCF. According to the study, a person working more than the threshold (holding one or more jobs) is still counted as one FTE only. A person working |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|--------------------------------------------------------------------|-------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | <pre>less than the threshold represents a certain percentage of a FTE. FTE national should be calculated using a threshold defined according to the features of the processing sector in each MSs. If the annual working hours per person exceed the reference level, the FTE equals 1 per crew member.</pre> |
| | Number of hours worked by employees and unpaid workers | The aggregate number of hours worked during the reference period. | | For the part of population covered by SBS: 1. directly obtained from SBS survey. However, SBS houses data of employed work force only, and it does not include unpaid labour. Therefore, additional estimation of number of hours worked by unpaid workers should be calculated. 2. directly obtained from DCF survey, |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-----------------------------------------|----------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | 3. derived from other surveyed variables. For the part of population not covered by SBS: 4. directly obtained from DCF survey, 5. derived from other surveyed variables. |
| Number of enterprises | Number of enterprises (1) | Number of fish processing enterprises in each size category (in terms of number of persons employed). | What does (1) mean? Number of fish processing enterprises in each size category (in terms of number of persons employed). Rename to "Number of enterprises by size category" Suggested categories: ≤5; 6-10 and >10 FTE | For the part of population covered by SBS: 1. directly obtained from SBS survey. For the part of population not covered by SBS: 2. directly obtained from DCF survey, 3. derived from other surveyed variables. 4. Through other governmental or administrational organizations |
| weight of raw material (OPTIONAL) | Weight of raw material per species and origin (optional) | Weight of raw material originating from fisheries and aquaculture | Further specification of classification of "origin" as well as for type of "raw material" required. To link with fishing the "live weight" would be required. SECFISH project? | For all enterprises: 1. directly obtained from DCF survey, 2. derived from other surveyed variables. |

| Table 4a Social variables for the fleet and aquaculture sectors | |
|-----------------------------------------------------------------|--|
|-----------------------------------------------------------------|--|

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|---------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Employment by gender | Specification of the meaning of "employment" missing, if reference to all or full-time-part- time required (corresponds to engaged crew or Paid labour for fleet) | Data should be raised to the total population. Employment data reported in the social data calls should be consistent with the data reported | PGECON recommends to follow Eurostat practice and separate social variable "Employment by gender" in the following groups: - "Male"; - "Female"; - "Unknown" (only if needed). |
| SOCIAL VARIABLES | FTE by gender | The number of employees converted into full time equivalent jobs (FTE). Fleet: People working only onshore and paid from vessels should be included if their activity has a direct link with the fishing operations. Employment on shore should include those activities, which directly related to small-scale fisheries and mostly carried out by fishers and their family members, but not entirely related to other economic sectors and specialties. Aquaculture: | under the Fleet and Aquaculture data calls. 3. PGECON recommends to stratify employment data for the social data call related to the EU fleet by supra region, geo-indicator, fishing activity (SCF, LSF and DWF) and main fleet segments, when possible. It is suggested to follow main AER group definitions as close as possible. For the employment data for the social data call related to the EU aquaculture sector it is | PGECON recommends to follow Eurostat practice and separate social variable "Employment by gender" in the following groups: - "Male"; - "Female"; - "Unknown" (only if needed). Figures for the number of persons working less than the standard working time of a full-year full-time worker, should be converted into full time equivalents, with regard to the working time of a full-time full-year employee in the unit. It is the total hours worked divided by the average annual number of hours worked in full-time jobs within the economic territory. Since the length of a |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|----------|------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GROUP | | | recommended to follow the same segmentation as for the aquaculture data call when possible, or at least to disaggregate by marine (finfish), freshwater (finfish) and shellfish. 4. It needs to be further investigated the trade-offs of providing the data for a particular date in the year so that duplications are avoided (e.g. when fishers are moving from one vessel to another during the year) or cover the whole year to include seasonal patterns. | full-time job has changed through time and differs between industries, methods which establish the average proportion and average hours of less than full-time jobs in each job group have to be used. A normal full-time week must first be estimated in each job group. If possible, a job group can be defined, inside an industry, according to sex and (or) kind of work of people. Hours contractually agreed upon can constitute for employee jobs, the appropriate criteria for determining those figures. Full-time equivalent is calculated separately in each job group, then summed. Included in this category are people working less than a standard working day, less than the standard number of working days in the week, or less than the standard number of weeks/months in the year. The conversion should be carried out on the basis of the number of hours, |
| | | | | days, weeks or months worked. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Unpaid labour by gender | Number of engaged crew / workers that have not received compensation in the form of wages, salaries, fees, gratuities, piecework pay or remuneration in kind. | | PGECON recommends to follow Eurostat practice and separate social variable " <u>Employment by gender</u> " in the following groups: - "Male"; - "Female"; - "Unknown" (only if needed). |
| | Employment by age | Specification of the meaning of "employment" missing, if reference to all or full-time-part- time required | | Taking into account needs of EMMF for monitoring of employment by age classes and Eurostat practice, PGECON recommends to separate social variable "Employment by age" at least into the following age classes: - <=14; - 15-24; - 25-39; - 40-64; - >=65; - "Unknown" |
| | Employment by education level | Specification of the meaning of "employment" missing, if reference to all or full-time-part- time required | | PGECON recommends to use the International Standard Classification of Education (ISCED 2011), defining social variable " <u>Employment by education</u> <u>level</u> ". Data collected under EUMAP by MS should allow to provide data at least for the following groups at EU level: |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|---------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | "Low" for education levels 0-2 (ISCED2011 and ISCED1997); "Medium" for education levels 3-4 (ISCED2011 and ISCED1997); "High" for education levels 5-8 (ISCED2011), levels 5-6 (ISCED1997); "Unknown" |
| | Employment by nationality | Specification of the meaning of "employment" missing, if reference to all or full-time-part- time required | | Taking into account national needs and EU requirements it is recommended to separate social variable " <u>Employment by</u> <u>nationality</u> " to at least the following groups: - "National"; - "EU"; - "EEA"; - "Non-EU/EEA"; - "Unknown". |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|------------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Employment by employment status | Specification of the meaning of "employment" missing, if reference to all or full-time-part- time required | | PGECON recommends for data collection of social variable " <u>Employment by</u> <u>employment status</u> " to be reported at least by two categories: - "Owner" (vessel owner involved in vessel activity/operation); - "Employee" (all engaged workers on-board, excluding owners). - "Unknown". Possible to disaggregate on a voluntary basis between full and part time employees. |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|---------------------|-------------------------|---------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Employment by gender | Specification of the meaning of "employment" missing, if reference to all or full-time-part- time required | Data should be raised to the total population. Employment data reported in the social data call should be consistent with the data reported under the Fish Processing | PGECON recommends to follow Eurostat practice and separate social variable " <u>Employment by gender</u> " to the following groups: - "Male"; - "Female"; - "Unknown" (only if needed). Taking into account needs of EMMF for |
| SOCIAL VARIABLES | Employment by age | Specification of the meaning of "employment" missing, if reference to all or full-time-part- time required | data call. 3. PGECON recommends stratifying employment data for the social data call related to the EU fish processing sector as the economic data for the EU fish processing sector is reported. | monitoring of employment by age classes and Eurostat practice, PGECON recommends to separate social variable " <u>Employment by age</u> " at least into the following age classes: - <=14; - 15-24; - 25-39; - 40-64; - >=65; - "Unknown". |

Table 4b Social variables for the fish processing industry

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|-------------------------------------|---------------------------------------------------------------------------------------------------------------------|---------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | Employment by education level | Specification of the meaning of "employment" missing, if reference to all or full-time-part- time required | | PGECON recommends to use the International Standard Classification of Education (ISCED 2011), defining social variable "Employment by education level". Data collected under EUMAP by MS should allow to provide data at least for the following groups at EU level: - "Low" for education levels 0-2 (ISCED2011 and ISCED1997); - "Medium" for education levels 3-4 (ISCED2011 and ISCED1997); - "High" for education levels 5-8 (ISCED2011), levels 5-6 (ISCED1997); - "Unknown". |
| | Employment by nationality | Specification of the meaning of "employment" missing, if reference to all or full-time-part- time required | | According to the Commission Decision (EU) 2016/1251: - Number per country in the world or follow the same categories as for the Fleet and Aquaculture data calls? - "National"; - "EU"; - "EEA"; - "EEA"; - "Non-EU/EEA"; |

| VARIABLE GROUP | Variable | Definition | PGECON advice | Methodology |
|-------------------|--------------|-----------------------------------------------------|---------------|--------------|
| | | | | - "Unknown". |
| | FTE national | The number of employees converted into full time | | |

Annex VII – MS Data Call Feedback

| Economic data / 2019 data call | | MS 1 | MS 2 | MS 3 | MS 4 | MS 5 | MS 6 | MS 7 | MS 8 |
|-------------------------------------------------------------------|---------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Action | Criteria | Scale (please select) |
| 1. Information / guidelines (definitions | Instructions | 4 | 4 | 5 - Good | 4 | 4 | 5 - Good | 4 | 5 - Good |
| | Accessibility | 4 | 5 - Good | 3 - OK | 4 | 4 | 5 - Good | 3 - OK | 5 - Good |
| and methodologies) for requested variables | Usefulness | 4 | 5 - Good | 4 | 4 | 4 | 5 - Good | 5 - Good | 5 - Good |
| | Ease of use | 4 | 5 - Good | 5 - Good | 4 | 3 - OK | 5 - Good | 4 | 5 - Good |
| | Instructions | 4 | 3 - OK | 5 - Good | 4 | 3 - OK | 4 | 5 - Good | 5 - Good |
| 2. Data reporting | Accessibility | 5 - Good | 5 - Good | 4 | 5 - Good | 2 | 5 - Good | 5 - Good | 5 - Good |
| templates | Usefulness | 5 - Good | 3 - OK | 4 | 2 | 2 | 4 | 5 - Good | 5 - Good |
| | Ease of use | 3 - OK | 3 - OK | 5 - Good | 5 - Good | 2 | 4 | 3 - OK | 5 - Good |
| | Instructions | 3 - OK | 5 - Good | 5 - Good | 5 - Good | 5 - Good | Don't know | 5 - Good | 3 - OK |
| 3. Tableau Online tool – data visualisation and data checks | Accessibility | 3 - OK | 4 | 5 - Good | 3 - OK | 5 - Good | 5 - Good | 5 - Good | 5 - Good |
| | Usefulness | 4 | 5 - Good | 5 - Good | 3 - OK |
| | Ease of use | 3 - OK | 5 - Good | 5 - Good | 4 | 4 | 5 - Good | 5 - Good | 3 - OK |

| Economic data data call | n / 2019 | | MS 1 | MS 2 | MS 3 | MS 4 | MS 5 | MS 6 | MS 7 | MS 8 |
|----------------------------|-----------------|---------------|------------------------------|------------------------------|------------------------------|------------------------------|------------------------------|--------------------------------|--------------------------------|--------------------------------|
| _Action | | _Criteria _ | Scale (please _select) | Scale (please _select) | Scale (please _select) | Scale (please _select) | Scale (please _select) | Scale (please _select) _ | Scale (please _select) _ | Scale (please _select) _ |
| | | Instructions | 4 | 3 - OK | 5 - Good | | 4 | Don't know | 5 - Good | 3 - OK |
| 4. Data analysi | analysis | Accessibility | 4 | 4 | 5 - Good | | 4 | 5 - Good | 5 - Good | 5 - Good |
| templates | | Usefulness | 4 | 5 - Good | 5 - Good | | 4 | 5 - Good | 5 - Good | 3 - OK |
| | | Ease of use | 3 - OK | 3 - OK | 5 - Good | | 4 | 5 - Good | 5 - Good | 3 - OK |

Social data / 2019 data

call

| Action | Criteria | Scale (please select) |
|--------------------------------------------------------------------------|--------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| 5. Information / | Availability | 4 | 4 | 5 - Good | | 3 - OK | 5 - Good | 5 - Good | 5 - Good |
| guidelines (definitions and methodologies) for requested variables | Usefulness | 4 | 5 - Good | 3 - OK | | 3 - OK | 5 - Good | 5 - Good | 5 - Good |
| | Ease/access | 4 | 5 - Good | 5 - Good | | 3 - OK | 5 - Good | 5 - Good | 5 - Good |
| 6. Data reporting templates | Availability | 4 | 4 | 5 - Good | | 3 - OK | 5 - Good | 5 - Good | 5 - Good |

| Economic data / 2019 data call | | MS 1 | MS 2 | MS 3 | MS 4 | MS 5 | MS 6 | MS 7 | MS 8 |
|---------------------------------------------------|---------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Action | Criteria | Scale (please select) |
| | Usefulness | 4 | 4 | 5 - Good | | 3 - OK | 3 - OK | 5 - Good | 5 - Good |
| | Ease/access | 4 | 3 - OK | 5 - Good | | 3 - OK | 5 - Good | 5 - Good | 5 - Good |
| | Instructions | 3 - OK | 3 - OK | 5 - Good | | 2 | Don't know | 5 - Good | 3 - OK |
| 7. Data analysis | Accessibility | 4 | 3 - OK | 5 - Good | | 2 | 5 - Good | 5 - Good | 5 - Good |
| templates | Usefulness | 4 | 5 - Good | 5 - Good | | 2 | 5 - Good | 5 - Good | 3 - OK |
| | Ease of use | 3 - OK | 4 | 5 - Good | | 2 | 5 - Good | 5 - Good | 3 - OK |
| | Utility | Don't know | 4 | 3 - OK | 1 -Poor | Don't know | 3 - OK | Don't know | 3 - OK |
| sample to population | Adequate | Don't know | 4 | 3 - OK | 2 | Don't know | 2 | Don't know | 3 - OK |
| raising | Robustness | Don't know | 4 | 3 - OK | 3 - OK | Don't know | 2 | Don't know | 5 - Good |
| 9. Minimum aggregation | Utility | 3 - OK | 5 - Good | 3 - OK | | 3 - OK | 5 - Good | Don't know | 3 - OK |
| and stratification levels requested (SSF, LSF, | Adequate | Don't know | 4 | 3 - OK | | Don't know | 5 - Good | Don't know | 3 - OK |
| DWF) | Robustness | 3 - OK | 4 | 3 - OK | | Don't know | 5 - Good | Don't know | 3 - OK |

| Economic data / 2019 data call | | MS 1 | MS 2 | MS 3 | MS 4 | MS 5 | MS 6 | MS 7 | MS 8 |
|-----------------------------------|-------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Action | Criteria | Scale (please select) |
| | Usefulness | Don't know | 2 | 3 - OK | 2 | Don't know | 3 - OK | Don't know | 3 - OK |
| aggregation and | Adequate | Don't know | 4 | 3 - OK | 2 | 3 - OK | 3 - OK | Don't know | 3 - OK |
| stratification levels | Feasibility | Don't know | 4 | 3 - OK | 4 | 3 - OK | 4 | Don't know | 3 - OK |

Economic and social 2019 data call: data submission

| Action | Criteria | Scale (please select) |
|-------------|---------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| | Instructions | 3 - OK | 4 | 3 - OK | | 4 | 5 - Good | 5 - Good | 5 - Good |
| 11 DUT 1 | Accessibility | 3 - OK | 4 | 3 - OK | | 4 | 5 - Good | 5 - Good | 5 - Good |
| 11. DV 1001 | Utility | 4 | 5 - Good | 2 | | 4 | 5 - Good | 5 - Good | Don't know |
| | Ease of use | 3 - OK | 5 - Good | 3 - OK | | 4 | 5 - Good | 5 - Good | Don't know |

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| Economic data / 2019 data call | | MS 1 | MS 2 | MS 3 | MS 4 | MS 5 | MS 6 | MS 7 | MS 8 |
|-----------------------------------|---------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|-----------------------------|
| Action | Criteria | Scale (please select) |
| 11b. Was the DV Tool Useful | | | | | | | | | |
| | Instructions | 2 | 4 | 5 - Good | | 3 - OK | 5 - Good | 5 - Good | 3 - OK |
| 12. Data uploading facility | Accessibility | 4 | 4 | 5 - Good | | 2 | 5 - Good | 5 - Good | 5 - Good |
| | Ease of use | 2 | 4 | 5 - Good | | 2 | 5 - Good | 5 - Good | 3 - OK |

Annex VIII - ToR 5 – Processing

| | | | | 2018 | 2016 | 2017 | 2019 |
|-----------|------------------------------------------------------------------|---------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------|-------------------|-------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| | | | | | | | |
| Table 6A: | Data availability | | | | | | |
| | | | | | | WP | 2017-2019 |
| | | | | | | WP date of submission | 31/10/2016 |
| MS | Data set | Section | Variable group | implementatio | Reference year | Final data available after | Comments |
| BEL | Fish processing economic and social data | 3C | all | N | N-2 | N+1, December | There will be a time lag in the data collection, caused by the incompatibility between the year of reporting and the "account year" kept by the company. Many companies have their account year from 1st of April year N until 31st of March year N+1, some of them from the 1st of June until the 31st of May. |
| BGR | Processing data | 3C | all | N | N-1 | N+1, June 30 | |
| | Social data processing | 3C | all | N | N-1 | N+1, July 30 | |
| HRV | Social data for the processing industry | 111 | All variable groups | 2017-2019 | N-1 | N+1 July 30 | |
| CYP | social data processing | 3 | all | N | N-1 | N+1 July 30 | RCM Med&BS-LP 2016 agreement |
| DNK | Fish processing economic | | all | N | N-2 | N+1, November 1 | For economic data use |
| FIN | Fish processing economic | 3C | all | 2017 | 2016 | 2018, August 1 | Years of implementation 2017-2019. First reference year 2016. |
| FRA | Fish processing economic | 3C | All | N | N-2 | N+1, November 1 | |
| DEU | Fish processing economic and social | 3C | all | 2017-2019 | N-1 | N+1, November 1 | |
| GRC | social data processing | 3C | all | N | N-1 | N+1 July 30 | in triennial basis |
| | Processing data | 3C | all | N | N-1 | N+1 June 30 | |
| HUN | Fish processing economic | | all | N | N-1 | N+1, November 1 | |
| IRL | Fish processing economic | 3C | all | N | N-2 | N+1, November 1 | |
| ITA | Fish processing economic | 3C | all | N | N-1 | N+1 June 30 | Deadline agreed at Regional level |
| LVA | Economic and social variables for the processing industry sector | 3C | Economic data | 2018 | 2017 | 2018, November 30 | |
| LTU | Fish processing economic | 3C | all | 2017-2020 | 2017-2019 | 2018-2020, October 1 | |
| MLT | Processing data | 3 | 3C | N | N-1 | N+1, June 30 | |
| POL | Fish processing economic | 3C | all | 2017-2019 | N-1 | N+1, November 30 | |
| ROU | Processing data | 3 C | all economic variable | 2017 | 2016 | 2018, June 30 | RCM Med-2016 Final Recomm & |
| | social data processing | 3C | all | N | N-1 | N+1 July 30 | |
| SVN | Fish processing economic | 3C | all | N | N-1 | N+1 June 30 | 1 |
| ESP | Fish processing economic | 3C | all | N | N-1 | N+1, September 30 | |
| SWE | Fish processing economic | 3C | all except 2 variables; number of hours worked and unpaid labour. It is not possible to seperate subsidies, so we will report it for the whole variable group. | N | N-2 | N+1, November 1 | |
| GBP | Fish processing economic | 30 | group. all | N | NL2 | N. November 1 | |

Year(s) of WP implementatio n

Reference year N-2

Reference year N-1

Final data available after

Annex IX - ToR 6 – EU MAP Revision

| EU-MAP | Questions for | Recommendatio | The reason for the | EU-MAP | EU- |
|---------------|--------------------|----------------------|----------------------|-------------|------|
| Section | the | ns for the | revision in EU- | text | MA |
| | consultations | parameters | MAP | chapters | Р |
| | with PGECON | inclusion or | | - | tabl |
| | 2019 | revision in COM | | | e |
| | | 2016/1251 | | | |
| Economic | 1. Should any | PGECON 2019 | It was decided that | Chapter I | |
| data | definitions be | recommends: – | there is no need to | Definitions | |
| collection in | clarified in the | No need for | change definitions | | |
| fleet | future EU-MAP | revision | to 'active fleet' or | | |
| | population for | | 'fleet segment' or | | |
| | economic data | | the text under | | |
| | collection for the | | Chapter III Data | | |
| | fleet or can these | | requirements 5(a) | | |
| | clarifications be | | | | |
| | done in | | | | |
| | PGECON | | | | |
| | recommendatio | | | | |
| | ns and | | | | |
| | methodologies? | | | | |
| | For action at EU | | | | |
| | level, please | | | | |
| | justify. | | | | |
| Economic | 2. Should the | PGECON 2019 | Inclusion of this | | Tabl |
| data | Fishing fleet | recommends: | definition to | | e 5B |
| collection in | segmentation in | Under Table 5B | remind MS of | | |
| fleet | Table 5B be | the inclusion of a | dominance criteria. | | |
| | revised? What | footnote to | | | |
| | are the concrete | reinstate the | | | |
| | points for | definition of | | | |
| | revision (to be | dominance | | | |
| | added / | criteria from EU | | | |
| | removed)? | Dec. 93/2010: | | | |
| | Could be | 'The dominance | | | |
| | amended in a | criteria shall be | | | |
| | way that | used to allocate | | | |
| | segments are | each vessel to a | | | |
| | aetined through | segment based on | | | |
| | similar fisheries | the number of | | | |
| | rather than | rishing days used | | | |
| | aominant gear | with each gear. If | | | |
| | and length | a fishing gear is | | | |
| | threshold. | usea by more | | | |
| | | than the sum of | | | |
| | | all the others (i.e. | | | |
| | | a vessel spends | | | |
| | | more than 50 % of | | | |

| EU-MAP | Questions for | Recommendatio | The reason for the | EU-MAP | EU- |
|---------|---------------|----------------------|--------------------|----------|------|
| Section | the | ns for the | revision in EU- | text | MA |
| | consultations | parameters | MAP | chapters | Р |
| | with PGECON | inclusion or | | | tabl |
| | 2019 | revision in COM | | | e |
| | | 2016/1251 | | | |
| | | its fishing time | | | |
| | | using that gear), | | | |
| | | the vessel shall be | | | |
| | | allocated to that | | | |
| | | segment. If not, | | | |
| | | the vessel shall be | | | |
| | | allocated to the | | | |
| | | following fleet | | | |
| | | segment: (a) | | | |
| | | 'Vessels using | | | |
| | | Polyvalent active | | | |
| | | gears' if it only | | | |
| | | uses active gears; | | | |
| | | (b) 'Vessels using | | | |
| | | Polyvalent | | | |
| | | passive gears' if it | | | |
| | | only uses passive | | | |
| | | gears; (c) 'Vessels | | | |
| | | using active and | | | |
| | | passive gears'. | | | |
| | | There was | | | |
| | | discussion about | | | |
| | | the utility of the | | | |
| | | current fleet | | | |
| | | segmentations | | | |
| | | and while | | | |
| | | PGECON does | | | |
| | | not recommend a | | | |
| | | change to these it | | | |
| | | does recommend | | | |
| | | a workshop to | | | |
| | | investigate | | | |
| | | alternative | | | |
| | | methods of | | | |
| | | 'fishing' | | | |
| | | segmentation. | | | |

| EU-MAP | Questions for | Recommendatio | The reason for the | EU-MAP | EU- |
|---------------|-------------------|---------------------|----------------------|-------------|------|
| Section | the | ns for the | revision in EU- | text | MA |
| | consultations | parameters | MAP | chapters | Р |
| | with PGECON | inclusion or | | | tabl |
| | 2019 | revision in COM | | | e |
| | | 2016/1251 | | | |
| Economic | 3. Inclusion of | PGECON 2019 | The inclusion of | | Tabl |
| data | new variables | recommends: | FTE in Table 5A | | e 5A |
| collection in | | Add FTE back | will reflect the | | |
| fleet | | into Table 5a as it | fishery data call. | | |
| | | will be requested | The division of | | |
| | | through the data | employment into | | |
| | | call. Under | paid and unpaid | | |
| | | Employment | will give clarity to | | |
| | | divide 'Engaged | the figures | | |
| | | Crew' into 'Paid' | provided by MS. | | |
| | | and 'Unpaid'. | | | |
| | | PGECON should | | | |
| | | administer a live | | | |
| | | guidance | | | |
| | | tracking | | | |
| | | uacking an | | | |
| | | definitions | | | |
| | | amendments | | | |
| | | clarifications etc | | | |
| | | to make it easier | | | |
| | | for MS to | | | |
| | | understand | | | |
| | | variable | | | |
| | | definition | | | |
| | | evolution. | | | |
| Economic | 1. Should any | PGECON 2019 | NA | Chapter III | NA |
| data | definitions be | recommends: No | | 6 (a) | |
| collection in | clarified in the | need for revision. | | | |
| aquaculture | future EU-MAP | | | | |
| | population for | | | | |
| | economic data | | | | |
| | collection for | | | | |
| | aquaculture or | | | | |
| | can these | | | | |
| | clarifications be | | | | |
| | aone in | | | | |
| | recommendatio | | | | |
| | ns and | | | | |
| | methodologies? | | | | |
| | For action at EU | | | | |

| EU-MAP Section | Questions for the consultations with PGECON 2019 | Recommendatio ns for the parameters inclusion or revision in COM | The reason for the revision in EU- MAP | EU-MAP text chapters | EU- MA P tabl e |
|--------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------|
| | level, please justify. | 2016/1251 | | | |
| Economic data collection in aquaculture | 2. Should the segmentation on aquaculture, currently included in the Guidance documents, be included in the revised EU-MAP? What segmentation should apply? | PGECON 2019 recommends: No revision currently needed in Table 9 in the revised EU-MAP. Segmentation itself is clear, but more guidance for MS is needed on how to allocate production and economic variables into the EU-MAP segments. Currently it is too early to give an official recommendation by PGECON, but footnote to Table 9 could be added referring to recommendation s by aquaculture EWG and PGECON. | Work on clarifying how to allocate to different segments from DCF to EU- MAP should be continued. PGECON recommend aquaculture WS (PGECON) in spring 2020. | NA | Tabl e 9 |
| Economic data collection in aquaculture | 3. Should the threshold on the economic data on aquaculture be kept or | PGECON 2019 recommends: No revision needed. | NA | Chapter V Thresholds | NA |

| rs MA P tabl e Tabl e 7 | revision in EU- MAP Hours worked is difficult to collect, and the purpose for | ns for the parameters inclusion or revision in COM 2016/1251 | the consultations with PGECON 2019 should it be | Section |
|----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------|
| rs P tabl e Tabl e 7 | MAP Hours worked is difficult to collect, and the purpose for | parameters inclusion or revision in COM 2016/1251 | consultations with PGECON 2019 should it be | |
| tabl e Tabl e 7 | Hours worked is difficult to collect, and the purpose for | inclusion or revision in COM 2016/1251 PGECON 2019 | with PGECON 2019 should it be | |
| e Tabl e 7 | Hours worked is difficult to collect, and the purpose for | revision in COM 2016/1251 PGECON 2019 | 2019 should it be | |
| Tabl e 7 | Hours worked is difficult to collect, and the purpose for | 2016/1251 PGECON 2019 | should it be | |
| Tabl e 7 | Hours worked is difficult to collect, and the purpose for | PGECON 2019 | should it be | |
| Tabl e 7 | Hours worked is difficult to collect, and the purpose for | PGECON 2019 | | |
| Tabl e 7 | Hours worked is difficult to collect, and the purpose for | PGECON 2019 | revised? | |
| e 7 | difficult to collect, and the purpose for | | 4. Inclusion of | Economic |
| | and the purpose for | recommends: To | new variables | data |
| | und die puipose for | include FTE | | collection in |
| | collecting this data | national (annual | | aquaculture |
| | is not clear. If FTE | data collection) in | | |
| | is included, it is | Table 7 and to | | |
| | enough for the | make "number of | | |
| | employment data. | hours worked by | | |
| | | employees and | | |
| | | unpaid workers" | | |
| | | from the Table 7 | | |
| | TT 1 1 1 11 | optional. | 1 01 11 | . . |
| r III NA | To be in line with | PGECON 2019 | I. Should any | Economic |
| ~ 7 ~) | other social and | recommends: | definitions be | data |
| 5 / a) | economic data | Adding new | clarified in the | fich |
| lion | beading 7 under | Chapter III: 7 | nonulation for | nrocossing |
| tatio | Chapter III is | Social and | population for | processing |
| liatio | needed for fish | economic data on | collection for | |
| | processing | fish processing | fish processing | |
| on- | including the a) | to enable the | or can these | |
| | definition for | assessment of the | clarifications be | |
| 25. | population, b) | social and | done in | |
| | segmentation (size | economic | PGECON | |
| | classes), C) | performance of | recommendatio | |
| | description which | the Union fish | ns and | |
| | data is collected for | processing sector. | methodologies? | |
| | main activity | This Chapter III.7 | For action at EU | |
| 1 | enterprises and | should include | level, please | |
| | what is collected | the definition | justify. | |
| | for secondary | referring to the | | |
| | | aetinition | | |
| | activity | | | |
| | activity enterprises. | provided under | | 1 |
| | activity enterprises. | provided under DCF (Chapter 4, | | |
| | activity enterprises. | provided under DCF (Chapter 4, section B.4 of | | |
| | activity enterprises. | provided under DCF (Chapter 4, section B.4 of COMMISSION DECISION | | |
| | activity enterprises. | provided under DCF (Chapter 4, section B.4 of COMMISSION DECISION 2010/93/FU) "The | | |
| | activity enterprises. | provided under DCF (Chapter 4, section B.4 of COMMISSION DECISION 2010/93/EU) "The population shall | | |
| | activity enterprises. | provided under DCF (Chapter 4, section B.4 of COMMISSION DECISION 2010/93/EU) "The population shall refer to | | |
| r III NA g 7 a) tion ntatio on- es. | To be in line with other social and economic data collected, new heading 7 under Chapter III is needed for fish processing including the a) definition for population, b) segmentation (size classes), C) description which data is collected for main activity enterprises and what is collected for secondary | employees and unpaid workers" from the Table 7 optional. PGECON 2019 recommends: Adding new heading in Chapter III: 7 Social and economic data on fish processing, to enable the assessment of the social and economic performance of the Union fish processing sector. This Chapter III.7 should include the definition referring to the definition | 1. Should any definitions be clarified in the future EU-MAP population for economic data collection for fish processing or can these clarifications be done in PGECON recommendatio ns and methodologies? For action at EU level, please justify. | Economic data collection in fish processing |

| EU-MAP Section | Questions for the consultations with PGECON 2019 | Recommendatio ns for the parameters inclusion or revision in COM 2016/1251 | The reason for the revision in EU- MAP | EU-MAP text chapters | EU- MA P tabl e |
|---------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------|-----------------------------|
| | | whose main activity is defined according to the EUROSTAT definition under NACE Code 15.20: 'Processing and preserving of fish and fish products', NACE code 10.20." Only number of firms and turnover for the secondary activity companies should be reported. | | | |
| Economic data collection in fish processing | 2. Should the segmentation on fish processing, currently included in the Guidance documents, be included in the revised EU- MAP? What segmentation should apply? | PGECON2019recommends:Thesegmentation onfishprocessingshouldbeprovidedinChapter III undernewheading7.The definition ofsizeclassesshould be in linewith the EurostatdefinitionforSBS. A referencetosizeclassificationofSBS1111accordingtocommissionregulationregulation(EC)251/2009(from | The correct segmentation to be followed is by size category where the number of persons employed (16.11.0) is: $1. \leq 9$ 2. 10-49 3. 50-249 4. > 250" | Chapter III new heading 7. | NA |

| EU-MAP | Questions for | Recommendatio | The reason for the | EU-MAP | EU- |
|---------------|-------------------|--------------------|----------------------|-------------|-------------|
| Section | the | ns for the | revision in EU- | text | MA |
| | consultations | parameters | MAP | chapters | Р |
| | with PGECON | inclusion or | | 1 | tabl |
| | 2019 | revision in COM | | | e |
| | | 2016/1251 | | | - |
| | | STECE 13-31 | | | |
| | | (EWG 13-15) | | | |
| | | recommendation | | | |
| | |) should be | | | |
| | | added see FWC | | | |
| | | 18-18 report | | | |
| | | Anney7 for the | | | |
| | | definition The | | | |
| | | componentian in | | | |
| | | the EUMAR | | | |
| | | midelines table | | | |
| | | guidennes table | | | |
| | | 3C should be | | | |
| | | revised | | | |
| | | accordingly | | | |
| | | (COM | | | |
| | | 2016/1701). | TT 1 1 . | 2.1.4 | T 11 |
| Economic | 3. Inclusion of | PGECON 2019 | Hours worked is | NA | Tabl |
| data | new variables | recommends: No | difficult to collect | | e 11 |
| collection in | | new variables | (especially unpaid | | |
| fish | | needed. | hours), and the | | |
| processing | | PGECON | purpose for | | |
| | | recommends | collecting this data | | |
| | | making "number | is not clear. FTE is | | |
| | | of hours worked | enough for | | |
| | | by employees | employment. | | |
| | | and unpaid | | | |
| | | workers" | | | |
| | | optional in the | | | |
| | | table 11. | | | |
| Social data | 1. Should any | PGECON 2019 | NA | Chapter I | NA |
| collection | definitions be | recommends: No | | Definitions | |
| | clarified in the | need for revision. | | | |
| | future EU-MAP | | | | |
| | population for | | | | |
| | social data | | | | |
| | collection for | | | | |
| | fishery, | | | | |
| | aquaculture and | | | | |
| | fish processing | | | | |
| | or can these | | | | |
| | clarifications be | | | | |
| | done in | | | | |
| | PGECON | | | | |

| EU-MAP | Questions for | Recommendatio | The reason for the | EU-MAP | EU- |
|-------------|-----------------|-------------------|----------------------|----------|------|
| Section | the | ns for the | revision in EU- | text | MA |
| | consultations | parameters | MAP | chapters | Р |
| | with PGECON | inclusion or | | | tabl |
| | 2019 | revision in COM | | | e |
| | | 2016/1251 | | | |
| Social data | 3. Inclusion of | PGECON 2019 | The age categories | NA | Tabl |
| collection | new variables | recommends: | should be in line | | e 6; |
| | | The option for | with EUROSTAT | | 11 |
| | | two types of age | (following groups | | |
| | | categories for | are proposed by | | |
| | | variable | EUROSTAT: less | | |
| | | "Employment by | than 16 years; from | | |
| | | age" in fish | 16 to 24 years; from | | |
| | | processing Table | 25 to 54 years; 55 | | |
| | | 11 should be | years or over). | | |
| | | provided for MS. | However, the | | |
| | | The Table 11 does | EUROSTAT age | | |
| | | not require the | groups are | | |
| | | revision but in | different from | | |
| | | the document for | current used for | | |
| | | Definitions the | EU-MAP and more | | |
| | | two types of age | detailed discussion | | |
| | | categories should | for the definition | | |
| | | be included. | "Employment by | | |
| | | The variable | age" is needed. | | |
| | | "Employment by | The variable | | |
| | | education level" | "Employment by | | |
| | | should be | education level" | | |
| | | optional in the | does not provide | | |
| | | table 6 and table | useful information | | |
| | | 11. | that could be used | | |
| | | | in the fisheries | | |
| | | | analysis. The | | |
| | | | information on | | |
| | | | improving the | | |
| | | | skills used in the | | |
| | | | fisheries industry | | |
| | | | could provide | | |
| | | | better overview. | | |

| EU-MAP | Questions for | Recommendatio | The reason for the | EU-MAP | EU- |
|-------------|-------------------|--------------------------|-----------------------|-------------|------|
| Section | the | ns for the | revision in EU- | text | MA |
| | consultations | parameters | MAP | chapters | Р |
| | with PGECON | inclusion or | | | tabl |
| | 2019 | revision in COM | | | e |
| | | 2016/1251 | | | |
| All sectors | 1. Should the | PGECON 2019 | Currently there is | Chapter III | NA |
| | reference on | recommends: | no operational | (5,6,7). | |
| | Guidance | Quality | guidance on data | | |
| | documents on | assurance | validation and | | |
| | Definitions / | framework and | quality reporting | | |
| | Methodologies / | methodological | except for the | | |
| | Quality be | report with | document on | | |
| | integrated in the | reference to | Quality of socio- | | |
| | revised EU- | handbook should | economic variables | | |
| | MAP? | be included | described in EU- | | |
| | [Currently there | under the | MAP. PGECON | | |
| | is no operational | Chapter III | should discuss the | | |
| | guidance on | (5,6,7). The EU- | applicability of this | | |
| | data validation | MAP guidelines | document and | | |
| | and quality | should be revised | possibilities to | | |
| | reporting except | accordingly | further improve | | |
| | for the | (COM | the quality | | |
| | document on | 2016/1701). The | assurance | | |
| | Quality of socio- | table 5B should | framework for | | |
| | economic | be deleted from | economic and | | |
| | described in EU | EUMAP guidalinas (COM | considering the | | |
| | MAP PCFCON | guidelines (COW | Cuidance | | |
| | should discuss | it does not | document on | | |
| | the applicability | n does not | Methodology of | | |
| | of this document | comprehensive | socio economic | | |
| | and possibilities | information | variables described | | |
| | to further | about the quality | in EU MAP 2018 | | |
| | improve the | The PGECON | consolidated and | | |
| | quality | recommends | the Handbook on | | |
| | assurance | making a | statistical | | |
| | framework for | revision included | procedures which | | |
| | economic and | under Annex2 | will be available in | | |
| | transversal data, | Methodology | 2019. | | |
| | considering the | (next Excel sheet) | Quality Assurance | | |
| | Guidance | in the | Framework | | |
| | document on | Methodological | Subgroup | | |
| | Methodology of | document | Workshop: | | |
| | socio economic | "Methodologies | • Define the | | |
| | variables | for the socio- | process of quality | | |
| | described in EU | economic data | assessment and | | |

| EU-MAP Section | QuestionsfortheforconsultationsforwithPGECON20192018MAP2018consolidatedforandtheHandbookonstatisticalforprocedureswhich willwhich willbeavailablein2019.]I | Recommendationsfortheparametersinclusionorinclusion in COM2016/1251described in EU-MAPAdhocContractContractConmitmentNoSI2725694Ref.Ares(2016)22440332-26/05/2016 | The reason for the revision in EU- MAP assurance, • Revise the guidelines of the methodological report (with reference to the Handbook). | EU-MAP text chapters | EU- MA P tabl e |
|------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------|-----------------------------|
| New data collection | Assess new additional data collection on Raw material and consider any related cost implication and the consequences any new data collection may have for the present data collection. Assess any new requests from end-users (e.g. STECF-18- 18 Report, EWG 19 05) providing scientific advice for the management of the CFP and the consequences any new data collection may have for the | PGECON2019recommends:that the collectionof raw materialremain optionaland should becarried out asplanned in thenational workplan.Therecommendationis based on theoutcome from theSECFISH projectand thediscussion at thePGECONmeetingregarding thecollection of rawmaterial datafrom theprocessingindustry. | TheSECFISHstudyexamined ifthefollowingvariablescould becollectedatenterpriselevel:•Volumeandvalueofrawmaterialsenterprigtheindustry•Byspeciesandorigin(Placeorigin(Placeorigin(Placeoriginspeciesaquaculture)or•Bybytypeofgrocessingfrozenandsemisemiprocessed)••Priceofthe <raw< td="">materialspurchased.FromtheFromtheprojectitwasconcludedthattheenterprisesintheprocessing</raw<> | NA | Tabl e 11 |

| EU-MAP | Questions for | Recommendatio | The reason for the | EU-MAP | EU- |
|---------|---------------|-----------------|-----------------------|----------|------|
| Section | the | ns for the | revision in EU- | text | MA |
| | consultations | parameters | MAP | chapters | Р |
| | with PGECON | inclusion or | | _ | tabl |
| | 2019 | revision in COM | | | e |
| | | 2016/1251 | | | |
| | present data | | industry in EU can | | |
| | collection. | | deliver the raw | | |
| | | | material data | | |
| | | | containing the | | |
| | | | above information. | | |
| | | | However, the | | |
| | | | industry is in | | |
| | | | general very | | |
| | | | reluctant to deliver | | |
| | | | data because it is | | |
| | | | costly for them to | | |
| | | | gather, organize | | |
| | | | and deliver the | | |
| | | | data to data | | |
| | | | collectors or the | | |
| | | | authorities. | | |
| | | | Furthermore, the | | |
| | | | benefit for | | |
| | | | collecting these | | |
| | | | data, from an | | |
| | | | industry | | |
| | | | perspective, seems | | |
| | | | relative limited | | |
| | | | compared to the | | |
| | | | cost. | | |
| | | | Pilot studies on the | | |
| | | | collection of raw | | |
| | | | material data also | | |
| | | | show a limited | | |
| | | | success in | | |
| | | | collecting actual | | |
| | | | data due to limited | | |
| | | | industry | | |
| | | | participation. | | |
| | | | Without industry | | |
| | | | participation it will | | |
| | | | be very difficult to | | |
| | | | collect data and | | |
| | | | provide data at a | | |
| | | | level of quality that | | |
| | | | are required for | | |

| EU-MAP | Questions for | Recommendatio | The reason for the | EU-MAP | EU- |
|------------|-------------------------------|-----------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------|------|
| Section | the | ns for the | revision in EU- | text | MA |
| | consultations | parameters | MAP | chapters | Р |
| | with PGECON | inclusion or | | 1 | tabl |
| | 2019 | revision in COM | | | e |
| | | 2016/1251 | | | |
| | | | more in-depth analysis used for further investigation of the sector. Therefore, the PGECON recommend that the collection of raw material remain optional. If collected, the raw material data can be included in the national chapter of Economic Report on the EU processing industry. | | |
| new data | 1. Assess new additional data | recommends: to | | ? | ? |
| concention | collection on | consult the | | | |
| | Economic data | SECFISH project | | | |
| | for recreational | results on | | | |
| | fishery and | recreational | | | |
| | consider any | fisheries. | | | |
| | related cost | | | | |
| | implication and | | | | |
| | the | | | | |
| | consequences | | | | |
| | any new data | | | | |
| | have for the | | | | |
| | present data | | | | |

| EU-MAP | Questions for | Recommendatio | The reason for the | EU-MAP EU- |
|---------|-------------------|-----------------|--------------------|------------|
| Section | the | ns for the | revision in EU- | text MA |
| | consultations | parameters | MAP | chapters P |
| | with PGECON | inclusion or | | tabl |
| | 2019 | revision in COM | | e |
| | | 2016/1251 | | |
| | collection. | | | |
| | 2. Assess any | | | |
| | new requests | | | |
| | from end-users | | | |
| | (e.g. STECF-18- | | | |
| | 18 Report, EWG | | | |
| | 19 05) providing | | | |
| | scientific advice | | | |
| | for the | | | |
| | management of | | | |
| | the CFP and the | | | |
| | consequences | | | |
| | any new data | | | |
| | collection may | | | |
| | have for the | | | |
| | present data | | | |
| | collection. | | | |

| EU-MAP | Questions for | Recommendatio | The reason for the | EU-MAP | EU- |
|------------|-----------------------|--------------------|-----------------------|----------|------|
| Section | the | ns for the | revision in EU- | text | MA |
| | consultations | parameters | MAP | chapters | Р |
| | with PGECON | inclusion or | | - | tabl |
| | 2019 | revision in COM | | | e |
| | | 2016/1251 | | | |
| New data | 1. Assess any | PGECON 2019 | At the time of the | | |
| collection | new additional | recommends: to | meeting the final | | |
| | data collection, | request biologists | report from STECF | | |
| | including social | to discuss the | EWG 19-03 was not | | |
| | variables, and | possibility of | finalised. | | |
| | consider any | inclusion of the | Provisional | | |
| | related cost | biological data | recommendation | | |
| | implication and | collection under | from this EWG, | | |
| | the | the EU-MAP | regarding existing | | |
| | consequences | biological | and potential new | | |
| | any new data | sections for | social variables for | | |
| | collection may | freshwater | data collection, | | |
| | have for the | aquaculture. The | were provided in | | |
| | present data | inclusion of the | lieu of the final | | |
| | collection. | biological data is | report. PGECON | | |
| | 2. Assess any | required based | deemed that it | | |
| | new requests | on the successful | would not be | | |
| | from end-users | pilot study | possible to provide | | |
| | (e.g. SIECF-18- | results and | clear and definitive | | |
| | 18 Report, EWG | received | recommendations | | |
| | 19 05) providing | qualitative | for social data | | |
| | scientific advice | information | collection without | | |
| | for the | which in turn | having access to | | |
| | the CED and the | the analysis for | The provisional | | |
| | | the analysis for | recommendations | | |
| | any now data | aguaculturo | from FWC 19-03 | | |
| | collection may | aquaculture | represented a short | | |
| | have for the | landlocked | list of social | | |
| | present data | countries | variables from a | | |
| | collection | countries. | very broad set of | | |
| | concettori. | | potential social | | |
| | | | topics. PGECON | | |
| | | | agreed, in part, that | | |
| | | | some of these | | |
| | | | should be | | |
| | | | requested in future | | |
| | | | data calls on a | | |
| | | | voluntary basis. As | | |
| | | | such no revision to | | |
| | | | the EU MAP were | | |
| | | | recommended. | | |
| | | | These variables | | |

| EU-MAP | Questions for | Recommendatio | The reason for the | EU-MAP | EU- |
|---------|---------------|-----------------|-----------------------|----------|------|
| Section | the | ns for the | revision in EU- | text | MA |
| | consultations | parameters | MAP | chapters | Р |
| | with PGECON | inclusion or | | _ | tabl |
| | 2019 | revision in COM | | | e |
| | | 2016/1251 | | | |
| | | | included a question | | |
| | | | around | | |
| | | | Vocational/Technic | | |
| | | | al training. The | | |
| | | | shortcomings and | | |
| | | | issues regarding | | |
| | | | responses to the | | |
| | | | Education question | | |
| | | | point towards a | | |
| | | | necessity to have a | | |
| | | | clearer | | |
| | | | understanding of | | |
| | | | the level and role of | | |
| | | | fisheries technical | | |
| | | | qualification. The | | |
| | | | EWG 19-03 | | |
| | | | suggests additional | | |
| | | | discussions on this | | |
| | | | topic to agree on | | |
| | | | some common | | |
| | | | categories of | | |
| | | | training related to | | |
| | | | fisheries. PGECON | | |
| | | | recommended that | | |
| | | | without clear | | |
| | | | indication on the | | |
| | | | usage of Education | | |
| | | | level is should be a | | |
| | | | The other | | |
| | | | recommendation | | |
| | | | that was accented | | |
| | | | was that the are | | |
| | | | categories for | | |
| | | | Fisheries should be | | |
| | | | broken down | | |
| | | | father. The age | | |
| | | | category '40-64' | | |
| | | | should be broken | | |
| | | | down, at least, by | | |
| | | | '40-54' and '55-64'. | | |
| EU-MAP | Questions for | Recommendatio | The reason for the | EU-MAP | EU- |
|-------------|---------------|--------------------|----------------------|---------------|------|
| Section | the | ns for the | revision in EU- | text | MA |
| | consultations | parameters | MAP | chapters | Р |
| | with PGECON | inclusion or | | | tabl |
| | 2019 | revision in COM | | | e |
| | | 2016/1251 | | | |
| Environment | NA | PGECON 2019 | In case of the | Chapter III 6 | Tabl |
| al data | | recommends: | continuation of the | (c) | e 8 |
| | | The purpose of | aquaculture data | | |
| | | the data | collection the clear | | |
| | | collection should | legal base and | | |
| | | be clarified and | definitions for the | | |
| | | decision to leave | variables | | |
| | | or delete Table 8 | "Medicines or | | |
| | | Environmental | treatment | | |
| | | variables for the | administered (by | | |
| | | aquaculture sector | type in gram)" and | | |
| | | from the new EU- | "Mortalities (in %)" | | |
| | | MAP should be | should be provided | | |
| | | discuss. | as well as the | | |
| | | | methodology for | | |
| | | | such data | | |
| | | | collection. A | | |
| | | | workshop may be | | |
| | | | needed to address | | |
| | | | these issues. | | |

Annex X - Presentations:

ToR 1 – SecFish

WP 1



First objective of WP1

To identify <u>achievements and failures</u> in the context of the existing European Coordination in Economic Data Collection

Specific goals:

- to list the issues addressed by PGECON and its working groups
 to analyze the impacts of improvements to the data collections at MS and European levels
- to identify issues that are still outstanding and that have not been yet finalized by PGECON
- to investigate whether the data collected have met end-users needs

Second objective of WP1

to outline the <u>functioning</u> of PGECON and links to Regional Coordination Groups

Specific goals:

- to identify options on the functioning of PGECON with a view to satisfy the end user's needs and help MS in efficiently use the data collection resources

- to describe specific objectives and tasks of PGECON

- to investigate alternative governance and rules of procedures for PGECON

Outcome/Deliverables

Milestones:

M1.1: inventory of PGECON and other WGs on economic and social issues with issues addressed and main achievements fulfilled;

Deliverable

D1.1: Report on the main outputs of PGECON and its working groups and on suggestions for possible improvements in the future coordination activities – September 2019, available in the sharepoint

PGECO MAY, 201

PG



1st Step – Review

The review of the relevant documents of PGECON, LM, STECF EWGs and EUROSTAT is presented following a template that allows to report and highlight the main issues and the outcomes from different bodies.

 Attention has been given to the following topics:

 •
 Methodologies and definition

 •
 Quality assurance and quality control framework

- ٠
- Use of the data End users' needs and feedbacks .

Table 1 – Review of issues addressed by European coordination groups on collection of economic and social variables – $\underline{table \ 1 \ D1.1.docx}$ Main TORs Main findings Working group

PGECON

PGECO MAY, 201

7 PGECON meetings + 11 different working groups

Shift from the status of STECF expert groups to DCF working group: - enlarged the participation to all MS that identified national experts directly involved in national surveys - allowed the identification of specific issues to be treated in ad-hoc working groups

182

Useful in terms of exchange of practical implementation and common definition of variables

- Statistical issues (methodologies and quality validation)
 First attempt of the "methodological report" to be included in the national programmes
- (annex I of the SGECA 2009 report)
- Table with identification and definition of accuracy indicators to be presented by MS in the Annual Report (former Technical Report), (Table 2 of the SGECA 2009 report)
- Guidelines for clustering (approaches and justifications)
 Guidelines on how MS should collect and present information on quality analysis
- Best practises for application of PIM

variables)

- Glossary of economic terms and general principles for drafting the glossary - Definition of thresholds to distinguish "commercial" and "low commercial" segments

PGE

WGs weak in the actual provision of reference documents/manuals/guidelines.

Reports have very different formats and results are not always presented in a clear and systematic way.

Several issues that were never finalized and remained "open" with no follow up actions, as, for instance:

 Recommendation on methodological report: each MS should prepare a methodological report that describes in detail the data collection process (6th PGECON)
 European Database for socio-economic data: an investigation with regard to the European Database to socie-confine data. an investigation with regard to the possibility of including disaggregated data in order to improve the linkage with biological data and of providing data at regional level should be undertaken in the future (1st PGECON) Assessment of different PCU: range too broad to be realistic even considering that this might vary due to technological differences or price levels in different MS. Further effort is needed to improve consistency on: assumptions, vintage classes, estimation of the price per capacity unit (2011 - Workshop on calculating capital value using PIM and definition of DCF

PGEC





PGECON was highlighted by almost 85% of the respondents as being a valuable community for DCF experts to share their experience, best practice and knowledge.

The questionnaires highlighted areas where PGECON was determined not to be fully aware of data requirements (**table 3**). Most respondees (40%) felt that PGECON does not have the right competence to discuss environmental data for the aquaculture sector and that it should be tasked by a separate group.

The consultation revealed where PGECON might need more training/expertise for each data category (table 4) and suggestions for improvements to the headings data quality, data coverage and data calls/data dissemination (table 7).

An interesting output of the questionnaire is related to the use of PGECON recommendations in drafting Work Plans and implementing economic surveys, with an overall positive response with an average of 81%.

A specific question asked if respondees agree that PGECON should change its status into a pan-European Regional coordination group. Overall, 52% (7% partly, 26% mostly, 19% totally), agreed that PGECON should become an RCG, 41% took a neutral position and 7% disagreed. The analysis also contains a summary of the statements with justifications given to the choice (**table 8**).

MAY, 201



Conclusions

Data collection and coverage of economic data for the fleet, aquaculture and processing sectors have improved in the last ten years driven by PGECON and the former STECF/SGECA.

The methodological development and the definition of best practices increased the accuracy and reliability of the socio-economic data currently available.

Weakness in the whole system, in particular there are several issues that were opened but never finalized and some useful tools that however are not publicly available. The reasons for these weaknesses are strictly related to the status and governance of PGECON.

Conclusions

- Possible improvements : increasing the synergies between Member States to improve the efficiencies in data
- increasing the synergies between themee order to any control order to any control management;
 spreading best practice e.g. sharing IT tools. Sharing tasks that require very specific knowledge, such as statistical programming would be beneficial;
 listing all the quality control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures and the control procedures already implemented to be shared among the control procedures and the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures already implemented to be shared among the control procedures and the control procedures already implemented to be shared among the control procedures and the control procedures already implemented to be shared among the control procedures and the control procedures already implemented to be shared among the control procedures and the con

 initial and quality control procedures aready imperiented to be shared among countries/institutes in charge of DCF;
 improving quality control by sectors (fleet, processing, aquaculture) through setting minimum standards, or by following standards such as the EU Statistics Code of Practice, formalizing procedures and by having methodologies reported through standard methodological reports

development of common web interface workspace to improve cooperation and intersessional work. Currently only the DCF web page managed by JRC is being used during the entire year, while PGECON folders are mostly used during the meetings

SECFISH project WP1

PGEC



RELEVANCE

- ✓ The different aggregation level of economic (fleet segment) and biological (fishing technique) data make them in many instances incompatible (STECF EWG 16-02);
- Disagregation of economic data to the same level of biological data is necessary to improve the availability of tools to scientists for bio-economic assessment and to provide advice.

OBJECTIVES

- ✓ to analyse comprehensive individual vessel data sets of different types of fisheries from different MSs;
 ✓ to develop common and shared guidelines and tools for
- ✓ to develop common and shared guidelines and tools for disaggregating economic data at the same resolution of transverse data;



















WP 4









Type of fishing rights (2)

Fishing rights that are traded in a market Fishing rights that are not traded (or not in big e volumes for a reference price to be established) Fishing rights that are attached to a tangible asset (oft vessel) are traded inseparably from each other.









WP 5





g.

- Tasks to be carried out:

 a. Assessing the volume/value of raw materials entering the industry

 b. By species and origin (Place of catch or production)
- By species and origin (Place of catch or production) By production method (fishery or aquaculture) By type of processing (fresh, frozen and semi processed) Price of the raw materials purchased Income coming from other activities (not fish processing) Estimate the costs of regular data collection c. d.
- e. f.

WP 5: Processing Milestones and deliverables: Milestones and deliverables: MS.1: Development of a common methodology, Examining existing data source and Developing a preliminary survey questionnaire MS.2: Qualitative interview with the industry MS.3: Estimation of cost of a regular data collection DS.1: Final report. Feasibility of collecting data on raw material **•**••• Slide 3



WP 5: Processing: Main steps in the WP:

 Development of a common methodology for collecting data The Finnish data collection and experiences has been studied What have we learned: What have we learned: The Finnish data collection approach follows a main species and main product approach, and it is based on the Harmonized Systems of Commodity. Numbers Collects both raw materials input and output from the industry <u>Challenges</u>: Industry participation Extrapolation Commendiate with when EU exercises Extrapolation Comparability with other EU countries <u>Common methodology chosen:</u> The Harmonized Systems using Commodity Numbers at 8-digit I enables a comparison of species, product and prices in EU 0

WP 5: Processing:

Main steps in the WP: 2. Examining existing data source to avoid any overlapping data collections and identify industries using fish from the primary sector Danish and German data has been examined and described. What have we learned:

Raw material data cannot be estimated from Very limited amounts of raw material are us not be estimated from existing data source ed in ot Very limited amounts or name Challenges: Imports, export and production statistics are not 100% reliable Difficult to identify what is going into processing (consumption, supermarkets, fishmongers, trade and manipulated products (repacked))

(repacked)) Actions: A new data collection can potentially solve this challenge!

0

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WP 5: Processing:

- <u>Main steps in the WP:</u> 3. Development of a preliminary survey questionnaire
- A preliminary questionnaire has been developed and described. What have we learned: The industry are able to deliver data within this format

- The industry are able to deliver data within this format **Challenges:** It will be a lot of work for the industry providing the data in this format, because they are not storing the data on the CN codes The entrance to the questionnaire may be a specise entrance instean of codes (breakdown the questionnaire to main species and product

.0

- Actions: The guestionnaire could be further developed both in terms of:
- A species entrance A main species and product approach Registration of output

WP 5: Processing:

Main steps in the WP: 4. Qualitative interview with industry, industry organizations and data collection experts to test the questionnaire and the feasibility of collecting data of raw material entering the processing industry Interviews has been conducted, and final conclusion has been drawn What have we learmed: The industry have the data on the requested variables However, the may not be stored in an easily assessable way Challenges: <u>Challenges:</u> The industry is reluctant to participate do to increasing costs The industry do not find a data collection valuable Confidentiality and prices! Actions: More knowledge on industry specialization for extrapolation is Better arguments for industry participation is needed

Θ

WP 5: Processing:

Main steps in the WP: 5. Estimation of cost of a regular data collection Cost estimates have been collected, and total co st estimated

Cost estimates have been concept, and the training of the formation of the second seco

collected from the invusory and the construction of the invusory of the construction o

Align the new control regulation (electronically storage of data) How can this benefit the industry 0

Side 9

WP 5: Processing:

- WP 5: Processing: <u>Overall conclusion WP5:</u> It is feasible to collect the data the industry have them It data should be comparable it should be collected using HS CN-8 National flexibility in selection of method should be allowed as long as the aim of comparability at the EU level is achievable The cost is estimated to approximately (21 million However, the cost for the industry seems considerable Benefits for the industry is questionable! Double counting (country of purchase) Confidentiality issues (prices, special enterprises) Recommendation:

 Confidentiality issues (prices, special enterprises)

 Recommendation:

 IF a data collection is initiated it should be considered if it could be
 aligned with the new control regulation requesting that data is store
 electronically – would limits the cost for the industry and data
 collectors
A data collection should be mandatory 0

WP 6





r

| Saria | Table 6 Il variables for the fishing and aquaculture sectors | |
|---------------------------------|-----------------------------------------------------------------|--|
| Variable | Uni | |
| imployment by gender | Number | |
| FTE by gender | Number | |
| Unpaid labour by gender | Natiber | |
| Employment by age | Natibar | |
| Employment by education lead | Number per education level | |
| topioyment by networky | Number from IU, IEA and Non-IU/IEA | |
| Employment by employment status | Nambor | |
| ITTE Nacional | Nanber | |



1 POSSIBLE END USERS AND THEIR NEEDS seafish DGMARE

Socio-economic impact assessment of fisheries management options, e.g. MSY, LO, etc.

- EMFF measures: Promotion of human capital, job creation and social dialogue Equal opportunities / job creation; Start-up support for young fishermen Socio-economic compensations for employees Community-led local development, FLAGS

*.****..**********************

| | | | | | 1 | |
|-----------------------------------------------------------------------|-------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-----|----|----|
| ICES WGSOCIAL | 1.00 | Important concepts to measure | I | 114 | 1 | ł |
| | Clear bet autor | Interactions, between feets / feet Anames | ×. | 1 x | ×. | ÷. |
| | multilaring | Well-being at the local community or falling community level | | ¥ | * | |
| | Lasthauk | Attachment to the failing profession, availability of afternative Neilbonds, personal Realistics, pommeric dependence on Tobiog | | | * | |
| | Canadalities | Social capital, antispherearchia, the influence of the second and economic circumstances of falling becautively conversity capacits to adopt to multiple streams | | × | | |
| | Receiving a | Re-caledge transfer and servicel | | | | |
| A fishing community is a community that is substantially dependent on | Rece | Attachment of fohers overfamily members to a place, collurally important speces and physical tradies. | | | | |
| or substantially engaged in, the | Secol Anternet | Induced Story, Stateger, organity in ording processes & | | | | |
| harvest or processing of fishery | Column | Navial coffection | | | | |
| resources to meet social and | Demographic | Natalitie Notaria social information, such as epo, integration and maining, job availability, gender | | | | |
| economic needs: the fishing vessel | Geography | Publishers of a convergency | | | | |
| owners, operators, crew and fish | Farmers | Insequality and well-being demokration and concerning of gasts and instal constitution | | | | |
| processors that are based in such a | Adaptive Capecity | indemotions and facilitated responses to constall and marine change | | | | |
| community (OECD glossary, 2001) | ing at the | Impact of management decisions on locial and an interim, actualizes | | | | |
| community (occur) glossary, 2001) | - Inggement | en annestes, actorites Responsement of Values to cuple decisions, participation is reprogenismi, degree of constal mechanismi of decision making processor | 4 | | * | |
| | Name and Address | Manual and | | | | |

CONCLUSIONS

- For better understanding of social characteristics of the sector, <u>regional and case</u> <u>studies approach with a wider list of variables could be used</u>.
- 5. For the future EUMAP1 might also be useful to corrected keeping results of social surveys (as defined in EUMAP1 at a <u>MS injoinal level and starting the noperiation in a note in assess relative conditions in the differences than billy follow *DCE segmentation* based e.g. on fishing licehnape, or species produced in a space. The possibility is collact and stee the data at angoinal level, e.g. fortense dependent regions. FLAG areas, NUTS might add in the thure to analysis of EMFF regional dimensions and contribute to development of measures by FLAGs.</u>
- At the same time <u>for proper socio-economic impact assessment</u> in the future <u>there should be a link between vessel</u> and social EUMAP variables kept.

seafish

seafish

CONCLUSIONS

- Despite limitation of EUMAP list of social variables it is a <u>great step forward in</u> understanding, of some of the social aspects of fisheries, aquaculture and fish processing, sectors, and of great use for EMFE especially employees analysis.
- 8. It is also recommended to follow international quidelines and experiences analiging the sector and resultion definition for the EUAAP variables. The PGECON reports of AIVI and ADP provided a transit decision and should be followed, however on the national level the approaches can differ to reflect data evaluability of each individual control.
- The <u>importance of social aspects and demand for more social analyses is</u> <u>crowing at international level</u>. In 2019 ICES established a separate working group on social research needs and there will be more requests coming from the end users.

seafish

CONCLUSIONS

- 10. There is a variety of approaches taken by MS to collect social data and provide it to the data call.
- 11. Analysis of other data sources, e.g. EU consuses, showed that despite a number of socio-demographic indicators collected during those exercises' there is no link to the foring social aquaculture or fish processing sector available in publically accessible data sets



WP 7



Detailed WP description: WP 7 (TI-OF)

First Objective:

List issues addressed by WGRFS and collate improvements to recreational fisheries data collection and establishment of a quality assurance framework Specific goals:

- to set up a framework to look at the quality of national survey schemes and document bias in data collection and estimates that satisfies the ICES quality assurance framework and requirements of the EUDCF and provides an assessment of quality for end-users of the data
- to identify the metadata formats required to capture and integrate recreational fisheries data into the existing Regional DataBase, RDB and finally into the new Regional Estimation System (RES)

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Page 2 Harry V. Strehlow 07.05.2019 Recreational Fisheries Data Collection

Detailed WP description: WP 7 (TI-OF)

Second Objective:

Specify socioeconomic data collection requirements in recreational fisheries Specific goals:

to specify the data requirements (type of data, frequency of collection) of socioeconomic data to assess the economic and social benefits of the marine recreasional fishing sector and enable developing models that incorporate both economic value and biological sustainability

THUNEN

THUNEN

Page 3 Harry V. Strehlow 07.05.2019 Recreational Fisheries Data Collection

| Task 1. | 1 - An inventory and analysis of the main output | its of WGRFS |
|--------------------|--------------------------------------------------------------------------------------------|---------------------------|
| • Rev | iew of all WG reports since the formation of th | e group (PGRFS, WGRFS) |
| Task 1. recreat | Assessment and collation of socioeconomic tional fisheries surveys | data requirements in |
| • Eva | luate the progress made in socioeconomic data | collection by MS and WGRF |
| • Ider | ntify existing and potential end users | |
| • Coll | ate socioeconomic data requirements based o | n end-user needs |

First Objective of WP7

List issues addressed by WGRFS and collate improvements to recreational fisheries data collection and establishment of a quality assurance framework Progress:

- Propress: Subgroup meeting with Kieran Hyder, Cefas in Rostock 16-20 April & Subgroup meeting during ICES WGRFS (11-15 June) including participants from FishPi2 and STREAM Revision of quality assurance framework from WGRFS with suggestions for improvements (framing, providing better definitions etc) Development of RDBES template + forwarding to ICES

- Next steps: SECFISH subgroup meeting 15-19 October to finalize work

Page 5 Harry V. Strehlow 07.05.2019 Recreational Fisheries Data Collection

Second Objective of WP7 Specify socioeconomic data collection requirements in recreational fisheries Progress: Subgroup meeting with Kieran Hyder, Cefas in Rostock 16-20 April and Skype in with Raul Prellezo, AZTI to discuss socioeconomic data requirements Subgroup meeting during ICES WGRFS (11-15 June) with Raul Prellezo, AZTI Tecnalia Proposal of socioeconomic data collection depending on end user needs Next steps: • SECFISH subgroup meeting 15-19 October to finalize work Page 6 Harry V. Strehlow 07.05.2019 Recreational Fisheries Data Collection THUNE

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ToR 3 – Aquaculture: Description of data collection and of relevant pilot studies



| | (Eco | nomic Re | Cur port of | rent the EU | Data Aqua | | Collect ulture s |
|----------------|--------------------------|----------------------------------------------|----------------|-----------------|--------------|------|---------------------|
| Country | Renier of enterprises | r Andikators for th Total sales Volume | Terrent | tre treshtoater | subsector: | 2010 | Antiques |
| | namber | thousand tonnes | millert | number | number | | Ununtil |
| Dulgaria | 535 🖚 | 7.5 🛋 | 15.5 4 | 200 A | 884 | - | 2.5 ** |
| Groatia | 43 *** | 4.0 🐨 | 2.9 🐨 | 158 | 550 | - | 5.2 ** |
| Donmark | 27 🐨 | 33.9 *** | 321.3 *** | 280 📣 | 25.9 | * | 85.7 * |
| Feland | 173 | 12.5 🐨 | 69.6 - | 485 🐨 | 341 | * | 40.6 *** |
| France | 208 *** | 27.8 *** | 108.7 | 1,233 | 945 | - | 17.3 ** |
| Grante | 117 - | 25 - | 11.0 - | 290 4 | 281 | - | 30.6 ** |
| Instand | 6 | 0.7 🐨 | 2.0 🤝 | 23 🛩 | 19 | * | 37.0 m |
| Raly | 246 🖤 | 40.9 🐨 | 122.5 🐨 | 584 🐨 | 112 | * | 143.7 -6 |
| Latita | 85 🐨 | 1.5 -66 | 35.44 | 210 4 | 169 | - | 32.2 ** |
| Malta | 1.000 | 0.1 - | 6.9 🐨 | 3 - | 3 | * | 16.8 7 |
| Portagal | | 0.7 m | 1.0 | 32 🐨 | 28 | * | 15.4 m |
| Spain | 183 | 18.4 m | 62.5 m | 912 46 | 704 | | 21.2 - |
| Sauden | 303 - | 14.3 m | 18.2 m | 610 A | 294 | | 28.5 1 |
| United Kingdom | 216 🛩 | 14.4 🐨 | \$3.7 w | 740 🐨 | \$71 | * | 18.1 1 |
| Total reported | 2,000 🤝 | 178.6 🐨 | 648.7 🐨 | 7,588 | 5,122 | ٠ | 21.8 ** |
| Other non DCF | | 125.2 - | 353.5 🛋 | | | | |
| Total Bil | | 104.8 | 1.003.2 | | | | |

| Research of Names 2004 - 2020 | and the second se |
|-----------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 4 | Freshwater Framework |
| Current focus on maritime | fisheries and aquaculture |
| First time mandatory above | e threshold, otherwise optional |
| Efforts of exchange and ne | tworking |
| Meetings in Prague (CZ), Sz | arvas (HU), Friends of Freshwater Fish etc. |
| No data collection for fresh | water fisheries under DCF |
| Commission implementing | decision 2016/1251 |
| Table 6: Social variables for t | he fishing and aquaculture sectors |
| Table 7: Economic variables f | or the aquaculture sector |
| Table 8 Environmental variab | les for the aquaculture sector |
| Table 9: Segmentation to be | applied for the collection of aquaculture data |
| IN MOVINION COMPANY | |

| And the second s | attaining () |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|
| | Table 6 |
| Socia | I variables for the fishing and aquaculture sectors |
| Employment by gender | Namber |
| FTE by gender | Number |
| Unpaid labour by gender | Number |
| Employment by age | Number |
| Employment by education level | Number per education level |
| Employment by nationality | Number from EU, EEA and Non-EU/EEA |
| Employment by employment status | Number |
| FTF National | Number |

| Yanable group | tavable | Dar |
|------------------------|--------------------------|-------|
| | Gross sales per species | Euro |
| income (7 | Otler income | Earo |
| | Personnel costs | Euro |
| Personnel costs | Value of unpaid labour | Euro |
| Energy costs | Energy costs | taro |
| | Einenenck contre | Fare |
| Raw material costs | Feed costs | Euro |
| Repair and maintenance | Repair and maintenance | Eave |
| Other operating costs | Other operating costs | taro |
| | Operating subsidies | Frank |
| Subsidies | Subsidies on investments | have |

| | Capital costs | Consumption of fixed capital | Euro | |
|---|-----------------------|---------------------------------------------------------------------------|-------------|--|
| | Capital value | Total value of mosts | Euro | |
| , | Financial results | Financial income | Euro | |
| | | Finencial expenditures | Euro | |
| | Investments | Net Investments | Euro | |
| | Debt | Debt | Euro | |
| | Remains and the state | Diremsek unad | kg | |
| | Raw materia weight | Fish Feed used | kg | |
| | Weight of sales | Weight of sales per species | Kg | |
| | | parsons employed | Norsbar/FTE | |
| | Imployment. | Unpaid labour | Norsber/FTE | |
| | | Number of hours worked by employees and unpaid workers | Hours | |
| | Number of enterprises | Number of enterprises (by category on the number of per- nom employed) | Number | |



| | | | | | Taki | 49 | | | | | | | |
|--------------------------------------------|---------------------------|-----------------------|--------------------------|------------------|------------|------------------|-------------------------------------------|----------|----------|--------------|-----------------|-------|--|
| | s | egmenti | tion to b | e applied | for th | e collectio | n of aq | sacultur | e data (|) | | | |
| | Teh farming sechniques () | | | | | Poly- culture | Hach- enes and narve- ics (?) | std | fað Gen | ting archit | iques | | |
| | | Tanks | Kndlo- | Renr- | Other | | | | ora | n na | Ou- | | |
| | Perids | ADD FACC- WRISS | screi and puns (?) | 175- NIKE (7) | esh esh | Cages (r) | Al m | ethods | Rafts | Long Long | box even (*) | Other | |
| Salmon | | | | | | | | | | | | | |
| Trout | | | | | | | | | | | | | |
| Sea bass & Sea becam | | | | | | | | | | | | | |
| Carp | | | | | | | | | | | | | |
| Tuna | | | | | | | | | | | | | |
| tel | | | | | | | | | | | | | |
| Stargeon (Eggs for human conversion) | | | | | | | | | | | | | |

| Other fresh water fish | | | | | | | |
|---------------------------|---|---|---|---|--|--|---|
| Other mazine fish | | | | | | | |
| Mussel | | | | | | | |
| Oyster | 1 | 1 | İ | 1 | | | 1 |
| Clam | | | | | | | |
| Cristaceans | | | | | | | |
| Other mollenes | | | | | | | |
| Multispecies | | | | | | | |
| Serveeds | | | | | | | |
| Other squatic | | | | | | | |







EU MAP Revision





Issue

The variables for aquaculture sustainability currently lack definition which will prevent the collation of coherent and comparable EU wide data to assess the environmental performance of the industry.

- For medicines,
- r medicines, it is not specified whether product weight or weight of active ingredient is required (or both). In addition treatments for aquaculture are quite diverse and it is considered useful to be able to classify these into groups for the purpose of provisionto the end user. Possible classifications are set out in the next side.
- For mortalities, again further clarity is needed as to what should be provided to the end user and which would enable production of a coherent EU dataset. For example, a percentage mortality figure is requested built is anti specified where the its is to number of individuo or by weight. It is further suggested that the stage of the lifecycle might need to be considered size here is a higher retunal background mortality at some stages and for some species than others.

UK Finfish medicines and treatments

| | From VMD (also betty: //argane unit) de | Prescribed under cascade | Other chemicals used that may be | | |
|--------------------|----------------------------------------------------|----------------------------------------------------------------------------|----------------------------------------|---------------------------|--------------------|
| | Prescription Only Medicine -V prescribed by Vet | POM – VPS prescribed by Vet, Pharmacist or Suitably qualified person | Small (pet) Animal Exception Scheme | | discharged |
| Antimicrobial | Aquatet (Deytetracycline) | | Chloramine T | | (Disinfectants*) |
| | Florecol premix (Florfenical) | | | | |
| | Pyceze (Bronopial) | | | | |
| | Vetnemax Fah (Amorycillin) | | | | |
| Ectoporasiticide | AMX (Deltamethrin) | | Ruke-Solve (Prostgaanted) | | Hydrogen peroxide |
| | Salmosan (Azamethip hos) | | Lice-Solve (Emernectin) | | Formaldehyde |
| | Salmosan Vet (Azamethiphos) | | | | Salt |
| | Sice Ensamettin benzaate) | | | | |
| Endogarasiticide | | | | Panacur (Fenbendazole) | |
| Vaccine | Aqualitac PD3 | Alpha Jett 2-2 | | | |
| | Aqualita: Relara | Aqualdac ERM (dip) | | | |
| | Norvan Compact PD | Askalvisc ERM eral | | | |
| Anaesthetic | | Tricaine PHARMAD | Aqua-Sed (Phenosyethanal) | | |
| Stripping promoter | Receptal (Buserelin) | | | | |
| Gender control | | | | | Methyl-sestenteron |

Recommendation(s)

- The issue of aquaculture sustainability data was looked at by PGECON 2017. PGECON was asked to draft term of reference and set up a workshop on the topic. However defusions on the starting position and guidance on possible terms of reference proved inconclusive since the most participant were economists and did not have the right competence at the meeting to decide on environmental questions.
- PGECON recommended that a separate sub-group on the same level as PGECON should be established to deal with this topic. The aim of the group would be to identify how data was already collected data under the existing health and hygiene legislation in each Member State and develop consistent EU data collection (metadata, data structure, etc.).
- It was noted that terms of reference would need to be developed with the Commission services responsible for data collection (whether JRC or Eurostat) and end users.

Suggestions for implementation:

- A separate sub-group on aquaculture environmental variables needs to be established and a workshop to better define these needs to be held.
- This should be considered a high priority, i.e. essential in order to collect meaningful and coherent data.

Outstanding questions

- Experts and end users may wish to consider whether the measures in EU MAP are sufficient for their intended purpose or whether others, for example the EMFF context optional and a should be considered for the next iteration of the regulation. This should be considered for the next iteration of the regulation. This should be considered for the next iteration of the regulation. This should be considered for the next iteration of the regulation. This should be considered for the next iteration of the regulation. This should be considered for the next iteration of the regulation.
- This was also the conclusion of STECF EWG 16-19 which reported:

"For environmental issues for coming years MS will collect data on the use of medicines and mortality. Additional data such as phosphorus and nitrogen in DGF maps, investment in water purification systems lets. will be needed to address other aspects of environmental impact.

As of now, the available data do not make it possible to conduct an analysis of environmental impact. This is also true with respect to food safety".

EWG 18-19: Economic Report of the EU Aquaculture sector - Objectives

- Discuss presentation and analysis in the EWG report of EU-MAP environmental (i.e., medicines and mortalities) and social data
 Report?
- What Next?



Finland



Production techniques and species Economic data collection of aquaculture Bromic data collection is register approach that content stormator in several data success including success and the several data success including success and the several data is production survey finding cost data) conducted by Natural Resources Infante aquacutes. By the survey is trapted to al data is Structures for aduation success and the several substration of the several data in success and the several substration of the several substrations of Statistics of finding (St) for all times in the Busicess Register was function, that for another substrations of Statistics for aduation, that for another substrations of Statistics for aduation, that for another substration of Statistics for aduation of the substration of Statistics of Statistics of for aduation of the substration of Statistics of Statistics of for aduation of the substration of Statistics of Statistics of for aduation of the substration of Statistics of Statistics of for aduation of the substration of Statistics o Economic data collection of aquaculture Rainbow trout is the main species in Finland, around 90 % of all Finnish aquaculture production is rainbow trout The most important farming method is the trout cage farming that covers marine rainbow trout and European whitefish production. . Two other trout production methods are inland food fish production in tanks and raceways and Recirculation systems. Hatcheries and nurseries produce mainly rainbow trout. Natural ponds produce freshwater juveniles for restocking. : . Radiantina Radiantina Region atalità Region atalità Radianti Radianti Radiantina Radia Radiantina Radia Radian Luke



Luke

disolietta poiso: i leti O posiziano D periamentemente Senobetta poiso: leti O posiziano O periamentemente lig O promisio Luke na 20182

Luke

How does KASSI work?

- 2.
- 3
- Target population and contact information is uploaded from the Aquaculture register. KASSI produces the paper questionnaires for all producers in the register and provides identity codes for each respondent. The questionnaires are printed and sent by mail. The repondents can provide data in KASSI on lane questionnaire, or return the paper questionnaire. The data from paper questionnaires are saved to KASSI in Like by reading the identity code of the questionnaire and inserting all questionnaire values. Next the data is checked and validated. Then reports of all the data in the KASSI database are produced as sci-files. These csv-files are used in the SAS programmes for producing the sample frame and data for economic data collection. 4. 5.



Czech Republic



Constants

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U. MARKANAN Magazine Astrono Contracting average

| Pilot Studies |
|--------------------------------------------------------------------------------|
| Not actuall in CZ at the moment – discussion with Ministery of Agriculture. |
| |
| |



Germany









| Variables | DE-FCP-5 (2017) | DE-FCP-20 (2017) | | |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------|--|--|
| Gross sales per species | 11,000 | 66,384 | | |
| Other income | 56,767 | 47,500 | | |
| Personnel costs | 0 | 0 | | |
| Value of unpaid labour | 5791 | 24,830 | | |
| Litergy costs | | 1,507 | | |
| Feed costs | 1,489 | 13,168 | | |
| Total value of assets | 5,799 | 24,830 | | |
| FTF | 0.26 | 1 11 | | |
| Unpaid labour | 2 | 3 | | |
| Number of hours worked | 466 | 1,998 | | |
| 12 tobias,lasner@thuene | n. de | :: т | | |
| presentative carp farms in Bavaria nure: Gross receipts of selected German carp farms 2017 | | | | |
| DE-+CP-5 | DE-FC | P-20 | | |
| 11,000 43,000 | 66,000 | 18,000 | | |
| 🖬 External income 🛛 🗎 A | gricultural farm 🛛 🔲 Public | Payments 🔳 Fish farm | | |
| 13 tobias.lasner@thuene | n, de | TH | | |
| procontativo carp farp | ns in Bavaria | | | |
| presentative carp fam | | | | |
| Figure: Costs and returns ($\in p$ | er kg LW) of selected Ba | varian carp farms with and | | |
| Figure: Costs and returns (€ p without Protected Geographi | er kg LW) of selected Bar cal Indication (PGI) label | arian carp farms with and 2016-2017 | | |
| Figure: Costs and returns ($\in p$ without Protected Geographi | er kg LW) of selected Bar cal Indication (PGI) label I Oppor | varian carp farms with and 2016-2017 tunity costs | | |
| Figure: Costs and returns (€ p without Protected Geographi 8.00 | er kg LW) of selected Bar cal Indication (PGI) label I Oppor ■Depre | varian carp farms with and 2016-2017 tunity costs ciation | | |
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| Figure: Costs and returns (€ p without Protected Geographi 7.00 | er kg LW) of selected Bar cal Indication (PGI) label I Oppor Depre R1Cash c Anake | varian carp farms with and 2016-2017 tunity costs clation osts t returns | | |
| Figure: Costs and returns (€ p without Protected Geographi 8.00 | er kg LW) of selected Baa cal Indication (PGI) label I Oppor Depre BitCash c Marke Marke | varian carp farms with and 2016-2017 tunity costs ciation osts t returns t returns t returns (with PGI) | | |
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| Figure: Costs and returns (€ p without Protected Geographi 8.00 6.00 6.00 6.00 | er kg LW) of selected Bon cal Indication (PGI) label I Oppor Depre BitCash c Marke | varian carp farms with and 2016-2017 tunity costs clation osts t returns t returns t returns (with PGI) | | |
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Regulation (EU) No 2017/1004 of EU Council and Parliament



16

Starting a survey on DEU freshwater aquaculture in 2017:

- No central enterprise register (Regulation (EC) No 88/2006 Article 6)
- Single federal states are responsible for aquaculture
- No access to registration data (address, species, tonnes) on county level
- Strict interpretation of data protection guidelines

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THÜNEN

THÜNEN

Regulation (EU) No 2017/1004 of EU Council and Parliament

Starting a survey on DEU freshwater aquaculture in 2018:

 Address research via diverse sources in line with legal advise
 Only addresses, no linked data on species or volume
 Announcement of survey via community's journals
 Corrected address pool covers 666 enterprises
 Simple design questionnaire + bonus question + time

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| iuble: Population, | populatio | n frame and responses | - () |
| Total population | n (2014) | Population frame (2018) | Responses (2018) |
| ca. 6,000 | , | 000 | 140 |
| Table: Farm sizes r | epresente | d in the sample (n=124) | |
| ≤2ton | | >2 ton <20 ton | ≥ 20 ton |
| 77 | | 21 | 26 |
| Table: Response ro | nte (n=666 | 2 | |
| Variable | respons | estotal for | response% rate |
| | seg. Tan | ks and raceways | |
| total value assets | | 33 | 5% |
| IIVESLOCK COSLS | | 70 | 1170 |
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| Coking back | burdens cceptance s lead to vey repre | for classic survey are high a low response rate esents ≤1% of total farm pro- | h population sents 3.3% |
| Administrative Fish farmers at Both difficultie The classic sur Regarding tota | burdens cceptance s lead to vey repre- | for classic survey are high a low response rate sents ≤1% of total farm p t, the classic survey repre- | h population sents 3.3% |



France



Reports from member states on current data collection and on status qu of pilot studies

N 10/04/2019-seedon on data collection in Fredwater Aquaculture Prasse 1. Reports

- a. Technical (methodical challenges of socio-economic data collection in freshwater aquaculture
 3. Technical (methodical challenges of data collection of environmental variables in freshwater aquaculture
- 4. Review of MSs experience, reporting and suggestions for the future

1. Reports from member states on current data collection and on status quo of pilot studies

1. Reports

- Aquaculture in France is under the responsibility of the French Ministry of Agriculture and Food (FMAF). The Statistics and Foresight Service (SSP-FMAF) is in charge of tatistics for aquaculture and made a partnership with the Nantes-Atlantic Economics and Management Laboratory (LEMNA), a unit from University of Nantes, for economic data collection and analysis.
- In France, activity in aquaculture is recorded by mainly two processes: statistical production survey (SPS), economic data collection (EDC).
- StBIBEGU production survey (srs), economic data sourceast Loco,
 > The SPS isn't part of the DCT operation, its main objectives are: keep the list of active enterprises in aquaculture, record sold production (in volume and value) at different life stages and employment at an enterprise level. Data are collected by questionnaires sent to enterprise by control (online in a oro). This operation is a statistic aurory approved by the National committee for statistical information. Norvhyltanding being compulsery, response rate is around 60% in shellfish farming sector, 70% in fish farming sector.



Every ten years, the statistical survey is replaced by a full census organized with field interviewers for a face-to-face questioning of enterprise and production sites.

1. Reports

- The SPS build results of aquaculture for transmission to professional or national authorities, for uploading data to Eurostati in application of Regulation (EC) No 764/2006. The SPS data are also used to divide up the population according to segmentation / stratification defined within the EDC program and gives some results needed by this process.
- EEMNA has organized economic data collection with partners: mainly accounts management centers (AMC) and a professional representatives committee in fish farming sector (CIPA). Data collection is made on a sampling basis (rate from 15 to 20%). Sampling isn't a random process as it's mainly dependent of information availability in the databases of the partners.

nion on data collection in Frenhvester Aquaculture France 2.3 z. Technical/methodical challenges of socio-economic data collection in freshwater aquaculture

- In accordance with the Commission Implementing Decision (EU) 2016/1251 of 12 July 2016 and in particular in the Chapter V concerning the thresholds, no data need to be collected on aquaculture for species accounting for less than 10 % of the Member State's aquaculture production by volume and value. In consequence, no data have been collected since 2016 for marine fiks farming.
- For freshwater, only for trout, part of the data collected is from AMC (majority), the other ones from companies.
- 3 main problems for the data collection:
- > The direct questioning poses problems of data validity: insufficient participation of producers; overrepresentation of large firms; insufficient data quality
- > There are very large companies that are unique. To keep the statistical confidentiality, these companies are mixed with others. The interpretation of data is difficult.

Problem to classify shellfish farming and fish farming which combine different techniques: The production of trout in "Tanks and Raceways" is predominant in France but many farms hold "Recirculation systems »

ON 10/04/2019-assisten en data collection in Freshventer Aguaniltz

Due to the lack of definition concerning the allocation of the firms in the different segments ("Tanks and Raceways", "Recirculation systems") of "Trout", France has defined a segmentation criterion.

Taking into account the ratio: [Volume of "Recirculation systems"> = Volume "Tanks and Raceways"] to classify a fish farming in the "Recirculation systems" segment, less than 10 were in this segment.

hence a very significant risk of not be able to collect data from these companies

It was therefore decided to allocate all French trout firms in the "Tanks and Raceways" segment

1. Aim of pilot study Regulation (EC) No 852/2004 and Directive 2006/88/EC are applied and production sites record medicine use and mortalities in the rearing register of

There is no centralization of these data from the establishments. Adding questions for these variables to the current production survey will probably not be welcomed by enterprises and response rate may be reduced.

An approach with the French ministry for agriculture and food cares has been implemented in 2018 in order to evaluate the feasibility of collecting environmental data on aquaculture.

ta collection in Freehouser A quantitare France

04/2019-session on data-collection in Freshvater Aquaculture France New social variables to be collected (EU-MAP n°2016/1251)

In 2018, France studied possible methods in order to collect the new social (table 6) and environmental variables (table 6). Experts and representatives of professionals and been involved in this work. Working groups met from September 2018 to December 2018 in order to discuss about the integration of the new social and environmental variables in surveys.

Following to working groups, the French Ministry of Agriculture and Food will launch two surveys in 2019: the annual aquaculture survey update in order to obtain the general inter-and ratafistical quality labels for the next 5 years (the previous label being valid until 2018) the decential census of fish and seaweed aquaculture (the previous one to place in 2007-2006)

e decennial census of fish and seaweed aquaculture (the previous one took tee in 2007-2008)

Thus two upweys integrate different questions allowing to respond to be seven within the The second questions fragmy stars by reducation level, by mationality will not be a problem in terms of analyse and integration contrast within the second question of the second questio

3. Environmental data 90 3. Technical/methodical challenges of data collection of environmental variables in freshwater aquaculture

3. Environmental data 👘

3. Suggestion

The work on the surveys has begun in 2018 with exchange in working groups. This work resulted in additional questions in decennial census of fish and seaweed aquaculture and in shellfish farming annual survey in order to collect environmental variables for year 2018. New environmental variables to be collected (EU-MAP n°2016/1251): France launches a Pilot Study in 2019 in order to collect environmental data on

2. Duration of pilot study

The responses will be available at the end of June 2019. The treatment and the data results will be available at the end of 2019.

14, Decep-session on data collection in Freedwater Aquaculture Frence: 2, Ezwirosamental data 1, p

3. Methodology and expected outcomes of pilot study (1/3) 3.1 Shellfish : medicines or treatments administered

Concerning the shellfish farming annual survey, there are no medicines or treatments administered by shellfish farmer because of the production in marine open area. That's why no question has been integrated in the survey.

3. Methodology and expected outcomes of pilot study (2/3) 3.2 Shellfish : mortalities variable

20N 16/64/2019-sension on data collection in Freshwoter Aquatalitate France

Concerning the mortalities variable, in accordance with Council Directive 2006/80/EC (OJ L 338, 24.1.2006), Article 5, Paragraph 1(b), aquaculture production businesses keep a record of (i) all movements of aquaculture animals and products thereof into and out of the farm or molluse farming area; (z) the mortality in each epidemiological units a relevant for the type of production.

Nevertheless, the record are not aggregated at the national level and no one computerised data are usable. That's why, via the survey 2018, shellfish farmer has to declare the losses in weight of **adult sold** shellfish (by specie).

The mortalities of shellfish seeds and on-growing shellfish are not included in the survey because of a lack of knowledge of the stock level (volume/specie/age) on the leagehold.

0N 16/04/2019-sension on data collection in Frenhwater Aquaculture France 3. Methodology and expected outcomes of pilot study (3/3)

3.3 Freshwater farming: medicines or treatments administered Concerning the decennial census of fish and seaweed aquaculture, some question are requested on the medicines or treatments administrated.

3. Environmental data 1922

Three categories have been identified: - the chemical treatment products (hydrogen peroxide, copper sulphate, etc.), - antibiotic (Ozolinic acid, Humequine, florfenicol, etc.) - and vaccine (against Yersiniosis agent, furunculosis, vibriosis, etc.).

For each category, fish farmers must indicate the unity (gram, ml, etc.). Depending of the results and if it is possible (realistic?) France will propose conversion indices in order to respond to the requirement of the regulation (in gram).

3.3 Freshwater farming: mortalities variable

Concerning the mortalities variable, for each size and each specie, the losses weight (kg) are requested. These results will be completed with the statistical database of removal order to rendering companies available at FranceAgrimer.

4. Review of MSs experience, reporting and suggestions for the future

New environmental variables:

PGECON 10/04/2009-session on data collection in Freshwater Aquaculture France

- \succ There are questions about the opportunity and pertinence to collect environmental variables Difficulties to collect, difficulties in terms of aggregation, difficulties in terms of interpretation at national and European level
- > What is the finality of these data for end-users, for European Commission, for Members-States?

> France requests to remove these variables and propose to collect a new variable: "stock variation" which will allow to measure the impacts of hazards on the aquaculture firm economic performance

Austria























And Maximy Barry EMFF

Project aim

Planned project steps

Analysis of barriers and potential conflicts





Module 3:
 Interviews on production barriers & potentials finished, analysis as next step
 Surveys on environmental data in progress









Statute M

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Hungary

DCF Data Collection Project of the Hungarian Fisheries Operational Programme (MAHOP) 2014-2020

Presenter: Ágnes Irma György NARIC Research Institute of Agricultural Econon



TIMING

18.01.2017 - Grant contract for preparatory tasks (Support of the collection, management and use of data related to the aquaculture sector – establishing the basis for the implementation of the MAHOP DCF2 project) app. 415 thousand Euro

08.06.2017 - Grant contract for implementation tasks (Support of the collection, management and use of data related to the aquaculture sector – implementation of the MAHOP DGF2 project) app. 1.670 million Euro

PREPARATION OF THE NATIONAL WORKPLAN FOR DATA COLLECTION

The first Work Plan for Data Collection of Hungary was officially submitted to the Commission on 31 October 2016

- The plan included
- · Socio-economic data collection on producers Socio-economic data collection on processors

The WP was slightly amended last year, investigation of mortality due to predators was added (as an environmental variable).

SOCIO-ECONOMIC DATA ON AQUACULTRE

- Representative sample 10% of enterprises cover 80% of total production of fish 367 enterprises officially registered in the national data base Covering of all the large enterprises was planed (>500 t/y)
- Selection criteria Number of enterprises – covering 10% of the total enterprises
- Number of enterprises covering 10% of the total Pond size covering 30% of the total area Quantity of production covering 30% of the total Farm size covering at least 30% of the total Species Cap and other freshwater fish

Face-to-face questionnaire survey – voluntary Problems: low willingness to participate, from 40 enterprises only 20 participated

SOCIO-ECONOMIC DATA ON PROCESSING INUSTRY

Census

- The second secon
- Face-to-face questionnaire survey (2017) voluntary
- Face-to-face questionnaire survey (2017) voluntary
 Response rate especially on financial variables was twv
 Mest of the not provided data we were able to gather from the accountancy data base of the National Tax and Customs Administration of Hurgary
 Missing data were (value of unpaid labour'), Number of hours worked by employees and unpaid volteres"
 New survey (ongoing) higher willingness to participate

ADDITIONAL DATA COLLECTIONS AND EVALUATIONS

- Pilot study on environmental data collection mortality by birds

- Hot study on environmental data collection mortainty by bros Collection of fish prices data at consumer level and directly at farms Collection of raw material data in the processing sector Analysis of the income generating capacity of aquaculture farms Analysis of the income generating capacity of aquaculture products Calculation and evaluation of indicators related to MAHOP Forecasting of domestic rish production for the coming year impact analysis of the termination of commercial fishing in natural vertere
- waters valuers Development of "new" fish consumption calculation methodology and continuous reporting .



Projects include also the development of the data base of aquaculture data

Difficulties: farmers/processors do not want to provide "sensitive" data – voluntary participation Late starting of OP and thus of the project

Motivation: Convincing farmers, that only based on factual data may be the interests of the sector supported by policy makers


Italy

Current mandatory/voluntary data collection

Statistics on aquaculture sector are collected through a census implemented under EU Reg. 762/2008. Under this framework, the following statistics are made available: (a) the annual production (volume and unit value) of aquaculture; (b) the annual input (volume and unit value) to capture-based aquaculture; (c) the annual production of hatcheries and nurseries; (d) the structure of the aquaculture sector.

Additionally, a probabilistic sample survey is implemented within the Italian DCF Work Plan to collect information on the economic aspects of the aquaculture sector. This economic survey includes Freshwater Aquaculture for one segment (tanks/trout).

Economic data are collected from the analysis of accounts and financial statements, but also through direct contacts with businesses to ensure perfect alignment between the accounting data and variables required by the EUMAP. All the economical parameters will be estimated through a "Probability Sample Survey" in which the sample is randomly selected from the universe of aquaculture firms.

The following table reports the sample design for the 2017 survey for the freshwater segment.

| MS/Year | Techniques | Species group | Type of data collection scheme | Frequency | Planned sample rate % | Frame population | Achieved sample number | Achieved Sample Rate % |
|----------|----------------------|---------------|-----------------------------------------|-----------|-----------------------------|---------------------|------------------------------|------------------------------|
| ITA/2107 | Tanks and raceway | Trout | B — Probability sample survey; | Annual | 10 | 118 | 12 | 10.17% |

Status quo of the pilot studies and on planned pilot studies

Pilot Study on Environmental data on aquaculture

A pilot study was implemented in 2017.

The aim of the pilot study was to assess the feasibility to provide the environmental data on aquaculture as indicated in Table 8 of EUMAP to enable the assessment of aspects of its environmental performance.

During 2017, as foreseen by the WP, the methodological test covered only the production of marine fish farming. For the realization of the pilot study, for 2017, the sub-sample already identified for the collection of economic data for the aquaculture sector, marine fish, has been used. Based on the planned activities and the innovative character of the study, some difficulties emerged in receiving the health data regarding the treatments, type and quantity, administered to the bred product. In particular, during the survey some difficulties arose in receiving complete information from the sector operators, partly due to the not always presence on the field of the health manager who is often a non-employee veterinarian of the company. Since this is a particularly sensitive subject for operators, the data are not easily

made available as they are registered but, according to law, they are only available to the competent veterinary services.

The pilot study on environmental data allowed to verify the procedures for collecting health information at the production companies, and to develop a data collection form to be used for future investigations. In particular, the following points should be considered:

- Need for a specific document that explains the purposes of data collection and authorizes the territorial network to collect data;
- Direct relationship with the health manager of the company for the timely collection of data.
- Analysis of the accessibility and procedures for obtaining health data stored in national databases

<u>Pilot Study on Data on employment by education level and nationality</u>

During 2017, as foreseen by the WP, the methodological test covered only the long-line mussel farm production segment. In total, social data were collected in a sample of n $^{\circ}$ 59 mussel farms.

In 2018, the collection of social data was implemented on the basis of the methodologies validated by the pilot study and in accordance with the recommendations of the PGECON (Vilnius 2017 and Gent 2018). The survey on social data included the freshwater segment (tanks/trout). Final results are under validation.

Belgium

In general, the Belgian fresh water aquaculture sector is characterized by small-scale, extensive production units, with low employment rate. Only a limited number of farms form an exception to this rule of thumb. In the northern part of Belgium (Flanders) the companies can be identified, in the southern part of Belgium (Wallonia) the situation is more complicated.

The biggest production is situated in Wallonia, where mostly rainbow trout (*Oncorhynchus mykiss*) and to a lesser extent brown trout (*Salmo trutta fario*) and brook trout (*Salvelinus fontinalis*) are kept. Most of the aquaculture farms are family-based operations that often have no further personnel on the pay-role and subsequently, do not have significant alternative employment opportunities. As a result, farmers are prepared to accept incomes, which would not be acceptable to publicly limited liability companies and keep producing trout under non-profitable conditions. Furthermore, leaving and getting back into business is fairly easy, because the infrastructure is not expensive to maintain.

Tilapia farming in Belgium started in 1980, with a pilot-farm at Thiange. The farm used warm water from the nearby nuclear power plant to heat the water in the outdoor fish tanks. The farm was operated for two years, but was then incorporated in a larger commercial fish farm (Piscimeuse) in 1982, designed and built by Gabriel N.V. to produce 150 tons of tilapia. In 1994 Gabriel N.V. was producing about 250 tons of tilapia in its farm at Thiange. In 2006 a consortium of investors constructed Europe's largest indoor tilapia farm (on recirculation) and processing plant at Dottignies, with the aim of producing 3 000 tonnes of fresh product per year for major European retail markets. The farm had to empty its tanks and start again after disease problems in 2007. In 2008, the farm experienced low selling prices due to declining fish prices, in particular the low cost of cod from the Barents Sea and increased Icelandic and Norwegian quotas. In 2010, the farm went bankrupt and was bought by Aqua Bio to farm sturgeons and maybe other cold-water species. In 2017 no tilapia farms were active anymore.

Shortly after the establishment of Aqua Bio (fish feed mill) in 1990, the sturgeon farm in Turnhout was built. In several indoor units and outdoor ponds, about 20 000 sturgeons are farmed until maturation, after which they are slaughtered to extract the caviar. The company has mastered the entire culture and reproduction cycle of 6 sturgeon species, e.g. *Acipenser gueldenstaedti, A. persicus, A. stellatus, A. baeri* and *A. ruthenus*. Apart from these four Eurasian sturgeons, Aqua Bio also houses two American species, the paddlefish (*Polyodon spatula*) and the shovelnose sturgeon (*Scaphirhynchus platorynchus*). These species produce different kinds of caviar, which are sold under the name "Royal Belgian Caviar". Sturgeon fillets are sold to Germany as fresh or smoked product.

In total, ILVO has collected 108 addresses of fish farmers, but it is uncertain that all of these are still in business. A questionnaire has been developed and will be sent to all 108 farmers, in order to select a number of farmers to be representative for the total Belgian aquaculture production.