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.	**1. Obtained directly from survey** **2. 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**
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 to other economic sectors and specialties.	MS should take into account how crew share is defined in the fishery, in case crew share based calculations are used.	**1. Obtained directly from survey** **2. 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 on total revenues or as percentage of revenues – costs • what are the costs actually included to calculate the share • what is the percentage that goes to the crew
	Value of unpaid labour	Imputed value of unpaid labour. Unpaid labour = Work that produces goods or services but is unremunerated (OECD Glossary of statistical terms). People working only on shore should be included only if their work is directly related to fishing activity.	The estimation of the imputed value of unpaid labour was discussed during the WS on calculating capital value using PIM and definition of DCF variables (Napoli, 13 -17 June 2011). Taking into account difficulties encountered by MS in estimating this variable (recognized by SGECA 10-03 and STECF EWG 11-03), a specific ToR 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. On the basis of the results of this workshop and comparing different experiences by MS (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)	**1. Derived from other surveyed variables** **2. FTE method** (based on WS Naples, 2011), 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).

VARIABLE GROUP	Variable	Definition	PGECON advice	Methodology
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. **Energy costs should be supplied as net costs, i.e. reduced by tax refunds**	Note: as in the DCF, excluding lubrication oil.	**1. Obtained directly from survey** **2. 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
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**
	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. Corresponds to the homologous DCF variable Direct subsidies	**1. Obtained directly from survey** **2. 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 payment should be associated to one vessel. This link allows to report operating subsidies in fleet segments.

VARIABLE GROUP	Variable	Definition	PGECON advice	Methodology
	Subsidies on investments (NEW)	Direct payments which general governments or the institutions of the European Union make to resident producers to finance all or part of the costs of their acquiring assets related to the vessel.	Administrative sources, if available, are more precise and therefore are preferable. Investment subsidies refer to permanent cessation or to fleet modernization. They should not be included in income (PGECON 2013). In case of subsidies for permanent cessation of fishing activities of those vessels which have become inactive during the year, it has to be decided if they can be classified in the segment of inactive vessel.	**1. Obtained directly from survey** **2. 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 payment should be associated to one vessel.
CAPITAL COSTS	**Consumption of fixed capital**	Decline in value of vessel and equipment, as a result of normal wear and tear and obsolescence.	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). Corresponds to the homologous DCF variable Annual depreciation; a WS is planned to compare methodologies and calibrate / update input data for the PIM. PGECON to revise the guidelines (definition and methodology) based on the outcomes of the 2019_WS_Capital. Changes to be discussed and approved by the 2020 PGECON	**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 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 Capital Costs (Gothenburg, 2013) suggested to use alternative approaches if accounting data (e.g. market value, book values) are available and can be easily derived by balance sheets.
CAPITAL VALUE	**Value of 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 early 2019) PGECON 2020 to revise the guidelines (definition and methodology) based on the outcomes of the 2019_WS_Capital. 2019_WS_Capital reviewed the best practices proposed by the 2011_WS and proposes step-by-step guidelines on how to obtain appropriate PCUs to be used as an input in the PIM method.	**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 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

VARIABLE GROUP	Variable	Definition	PGECON advice	Methodology
				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) 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 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 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 (currently being addressed by the SECFISH project) PGECON 2020 to revise the guidelines (definition and methodology) based on the outcomes of the 2019_WS_Capital. 2019_WS_Capital reviewed the SECFISH guidelines for the valuation of fishing rights and propose some additions/clarifications.	**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).

VARIABLE GROUP	Variable	Definition	PGECON advice	Methodology
INVESTMENTS	**Investments in tangible assets** ~~net~~	Gross investment in vessel and onboard equipment minus sales of (vessel and) onboard 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. 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 PGECON to revise the guidelines (definition and methodology) based on the outcomes of the 2019_WS_Capital. Changes to be discussed and approved by the 2020 PGECON	**1. Obtained directly from survey** **2. Estimated from PIM method** (it is not clear if this is being used by any MS; if used, MS should specify in 'comments') **3. Obtained from administrative sources**
FINANCIAL POSITION	**Long/short Debt (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 survey** Balance sheets are considered the most reliable source of data for debts (MSs that derived the value of debts from questionnaires experienced a very poor quality of responses). When balance sheets are available, value of long/short debts have to be split by vessel, according to the capital value of each vessel estimated trough the PIM which is used to "weigh" the share on the total value. 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).
	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 onboard 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)\n\nThe total number of persons should be estimated as an annual average (consistent with the DCF). To be further discussed during PGECON 2020 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.		**1. Obtained directly from survey**\n**2. Derived from other surveyed variables**
	FTE National	The number of crew converted into full time equivalent jobs (FTE). 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.	From 2017 onwards, FTE falls under social variables (EUMAP). PGECON recommends to keep it as an economic variable in the fleet data call to guarantee annual data (as in DCF).	**1. Derived from other surveyed variables**\nFTE definition: unit expressing the number of employees into full-time workers (usually defined in the national law).\nAppendix 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.\nAccording 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 approach was mainly because:\n- 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;\n- "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".\n\nThe 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 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.\nFTE national should be calculated using a threshold defined according to the features of the fishery sector in each MS.\nIf the annual working hours per crewmember exceed the reference level, the FTE equals 1 per crewmember.\n- if annual working hours > national threshold, then FTE national

VARIABLE GROUP	Variable	Definition	PGECON advice	Methodology
				=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 = annual working hours/(national threshold). 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).
	Total hours 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 to other economic sectors and specialties.	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.
FLEET	**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**
	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**
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.	**1. Obtained directly from survey** **2. Obtained from administrative sources** (e.g. in case tax exemptions are used in the country) **3. 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**	Number of fishing enterprises/units in ownership of the respective number of vessels. This refers to the fleet as a whole, not to fleet segments. By size category: - 1 owned vessel - 2-5 owned vessels - > 5 owned vessels Number of enterprises shall be collected on the level of the total fleet not fleet segment.		**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. NOTE: EU-MAP calls for the variable Live weight of landings per species to be provided in **tonnes**.	