



FAME Support Unit

CT03.1

Working paper on definitions of EMFF common indicators

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List of Acronyms

CISE	Common Information Sharing Environment
CLLD	Community-Led Local Development
CMES	Common Monitoring and Evaluation System
CFP	Common Fisheries Policy
CFR	Community Fleet Register
COM	European Commission
CMO	Common Organisation of the Markets (in fishery and aquaculture products)
CPR	Common Provisions Regulation
DCF	Data Collection Framework
EBIT/DA	Earnings Before Interest and Taxes/Depreciation and Amortisation
EDA	European Defence Agency
EEA	European Environment Agency
EFSA	European Food Safety Authority
EMFF	European Maritime and Fisheries Fund
EMSA	European Maritime Safety Agency
ERS	Electronic Recording and Reporting System
ESIF	European Structural & Investment Funds
EUMOFA	European Union Market Observatory for Fisheries and Aquaculture products
FAME	Fisheries and Aquaculture Monitoring & Evaluation
FLAG	Fisheries Local Action Groups
FTE	Full Time Equivalent
GT	Gross Tonnage
GVA	Gross Value Added
IB	Intermediate Body
IBO	Inter-branch Organisation
ICES	International Council for the Exploration of the Sea
IMO	International Maritime Organization
IMP	Integrated Maritime Policy
IUU	Illegal, Unreported and Unregulated (fishing)
JRC	Joint Research Centre
MA	Managing Authority
MPA	Marine Protected Area
MS	Member State
OJ	Official Journal
OP	Operational Programme
PMP	Production and Marketing Plan
PO	Producers Organisation
SAC	Special Areas of Conservation
SI	International System of Units
SHI	Sustainable Harvest Indicator
SPA	Special Protection Areas
STECF	Scientific, Technical and Economic Committee for Fisheries
TAG	Technical Advisory Group
UP	Union Priority
VMS	Vessel Monitoring System

1 Background and objectives

1.1 Background

Like all European Structural & Investment Funds (ESIF), the European Maritime and Fisheries Fund (EMFF) adopted a reinforced result-oriented approach. This implies that the “points of departure” of the interventions and their expected results are documented and can be presented to all stakeholders and the interested public. To achieve this, a Common Monitoring and Evaluation System (CMES) for the EMFF has been introduced, comprising context, result and output indicators as well as a reinforced intervention logic, milestones¹ and target values. There are three types of common indicators addressing different levels of objectives and serving different purposes:

- Context indicators – generally included in the Data Collection Framework (DCF) – are linked to the wider objectives of the EMFF and reflect the situation at the beginning of the programming period.
- Result indicators are variables that measure the gross effects of the EMFF interventions on specific dimensions targeted by a policy action. The effect to be measured and the target refer to the OP intervention ONLY. They are based on information from beneficiaries and/or MAs, and report on changes in absolute or relative terms.
- Output indicators are the direct products of activities implemented under Operational Programmes (OP) intended to contribute to results. In most cases they are expressed as the number of operations co-financed by the EMFF OP.

The list of common indicators was drawn up taking the following principles into account:

- Relevance of indicators to programming, including the Europe 2020 Strategy and in presenting the roles and achievements of cohesion policy and the funds (CPR, Article 115, Par. d);
- Reduction of administrative burden (minimal number of indicators);
- Consistency and comparability (using equivalent indicators at different stages);
- Links between different levels of indicators (context, output and results);
- Simplification (use of existing data sources such as the DCF or Eurostat);
- Flexibility in the selection of indicators according to their relevance to the respective EMFF OP;
- Exploitation of data which the beneficiaries are obliged to convey.

The **legal basis** for the above indicators is Commission Delegated Regulation (EU) No 1014/2014 resp. Corrigendum, OJ L 347, 3.12.2014, p. 46 (1014/2014).

Member States (MSs) need to report on the indicators based on Article 97.1 EMFF (cumulative data on selected operations) and Article 114 EMFF/Article 50 Common Provisions Regulation (CPR).

¹ For indicators selected for the performance framework

1.2 Objectives

The programming period 2014-20 has a very strong focus on results and performance. Hence the development of a robust and comparable CMES is a prerequisite for accurate reporting at the end of the programming period. This document has been developed by DG MARE with the support of FAME SU and in consultation with the Member States. It deals with the common indicators in the Commission Delegated Regulation (EU) No 1014/2014 and the use of its provisions is strongly recommended for the sake of consistency and comparability.

The present paper provides:

- a set of operational definitions for all common indicators; and
- a basis for the monitoring and evaluation obligations as part of OP implementation as defined by the CPR, ensuring consistency and comparability.

This version of the paper is a revised version of the one from October 2016. It has been adapted in March 2019 to include an alternative definition of the RI “Increase in the percentage of fulfilment of data calls” under “data collection measures: fulfilment of data calls under DCF”. The alternative definition is applicable to land-locked Member States only. Table 1 below gives an overview of all common context and result indicators:

Table 1: Common context and result indicators

Context Indicators	Result Indicators
UP1	
CI_1.1 Fishing fleet	RI_1.6 Change in the % of unbalanced fleets
CI_1.2 Gross value added per FTE employee	–
-	RI_1.1 Change in the value of production
-	RI_1.2 Change in the volume of production
CI_1.3 Net profit	RI_1.3 Change in net profits
CI_1.4 Return on investment of fixed tangible assets	–
-	RI_1.4 Change in unwanted catches
CI_1.5 Indicators of biological sustainability	-
CI_1.6 Fuel efficiency of fish capture	RI_1.5 Change in fuel efficiency of fish capture
CI_1.7 Ecosystem indicators as defined for the implementation of Directive 2008/56/EC	–
CI_1.8 Number of employed persons	RI_1.7 Employment created in the fisheries sector or complementary activities
	RI_1.8 Employment maintained in the fisheries sector or complementary activities
CI_1.9 Incidence of work-related injuries and accidents	RI_1.9 Change in the work-related injuries and accidents
1.10 Coverage of marine protected areas	RI_1.10 Change in the coverage of marine protected areas relevant for UP 1
UP2	
CI_2.1 Volume of aquaculture production	RI_2.1 Change in volume of aquaculture production
CI_2.2 Value of aquaculture production	RI_2.2 Change in value of aquaculture production
CI_2.3 Net profit	RI_2.3 Change in net profit

Context Indicators	Result Indicators
CI_2.4 Volume of production organic aquaculture	RI_2.4 Change in the volume of production organic aquaculture
CI_2.5 Volume of production recirculation system	RI_2.5 Change in the volume of production recirculation system
-	RI_2.6 Change in the volume of aquaculture production certified under voluntary sustainability schemes
-	RI_2.7 Aquaculture farms providing environmental services
CI_2.6 Number of employed	RI_2.8 Employment created
	RI_2.9 Employment maintained
UP3	
CI_3.A1 Serious infringements in the MS	RI_3.A1 Amount of serious infringements detected
CI_3.A2 Landings that are subject to physical control	RI_3.A2 Landings that have been subject to physical control
CI_3.A3 Existing resources available for control	–
CI_3.B Fulfilment of data calls under DCF	RI_3.B Increase in the percentage of fulfilment of data calls
UP4	
CI_4.1 Extent of coastline, main waterways and main water bodies	–
-	RI_4.1 Employment created
-	RI_4.2 Employment maintained
-	RI_4.3 Businesses created
UP5	
CI_5.1 Producer organisations, associations of POs, inter-branch organisations	–
CI_5.2 Annual value of turnover of EU marketed production	RI_5.1 Change in the EU production with distinction between POs and non-POs
UP6	
CI_6.1 Common Information Sharing Environment for the surveillance of the EU maritime domain	RI_6.1 Increase in the Common Information Sharing Environment) for the surveillance of the EU maritime domain
CI_6.2 Coverage of marine protected areas	RI_6.2 Change in the coverage of marine protected areas relevant for UP 6

The document proposes, for example, assumptions for target setting at OP level, which can be used as a guide for revising targets for an OP modification. However, the actual method is up to the MA (the target might be normative, empirical or policy-led).

What needs to be considered at that stage is that the definitions and the clarifications of the result indicators (i.e. the fields “Definition” and “Definition – further clarification” of the individual indicator fiches) at the OP level comply with this paper. Great effort has been made to ensure that the definitions of the result indicators are simple, straightforward to implement and easy to report. For the remaining fields, discretionary power resides with the

MA; e.g. one MA might not need to rely on “optional inputs from other sources” for some of the indicators. Result indicator values are provided by the beneficiary of each operation. Exceptions are the result indicators under UP3 and RI 6.1; these behave rather like context indicators and their sources are national or COM databases and NOT the beneficiaries.

Result indicators are reported at beneficiary level, even if the operation concerns only a section or department of the beneficiary’s business activities. Result indicators illustrate direct gross effects, so a change in the value might not be exclusively due to the EMFF intervention. Other factors such as context development also influence the value of the indicators. Whether a change observed in a result indicator is induced by the EMFF alone, or also by other factors and external effects, is to be disregarded when collecting values for reporting and monitoring purposes. Estimating the “net EMFF effect” (i.e. excluding other factors) is a task for the evaluation at a later stage.

Result indicators are in most cases defined as “change over time”. This implies that the MA should know for each operation:

- the baseline, i.e. the data BEFORE the operation (not part of Reg.1243/2014, Annex 1);
- the target (Reg.1243/2014, Annex 1, field 23);
- the reference period (based on the minimal standard defined in this paper).

Baselines are not considered in Reg. 1243/2014, Annex 1 and are thus not part of the EMFF CMES in the narrow sense – hence they are discussed in this paper only for informative reasons. Nevertheless, baseline values are to be reported in the framework of Reg.480/2014, Annex III (Field 37). MAs are strongly advised to record them meticulously since they are necessary for evaluation purposes. It is strongly recommended to use the common result indicators to the maximum possible extent. Applicability or non-applicability of an indicator should be defined by the MA. Non-applicability of a result indicator can be declared at three levels:

1. The indicator is applicable at the OP level, but not applicable at operation level for some operations. An example is an OP implemented under both UP1/SO1 Article 37 and Article 38, where the indicator 1.4 “Change in unwanted catches” is applicable under Article 38 and non-applicable under Article 37. For all operations under Article 37, the Reg.1243/2014 Annex I Field 23 and Field 24 remain blank². A sub-case would be an operation under Article 37 where one beneficiary is actually a fisher deploying a device; in that case, whether or not the indicator is applicable is decided at the beneficiary level.
2. The indicator is applicable at the OP level and relevant to the Article but the change for the given measure can be negative by design. For example, Article 33 on permanent cessation should always lead to a decrease or even nullification of volume, value and net profit. In such a case, the indicators 1.1, 1.2 and 1.3 should be considered “non-applicable”.

² In this case, “blank” or “void” implies “non-applicable”. This is a temporary and sub-optimal solution. An introduction of the choice “non-applicable” for Reg.1243/2014, Annex 1, field 23 and 24 is under discussion.

3. The indicator is non-applicable at the OP level; for example, under UP1/SO1 an OP implements only Article 37, so all operations are on conservation measures research. Hence the indicator 1.4 “Change in unwanted catches” is non-applicable at OP level.

Result indicators will be reported several times in different forms:

- In the course of Article 97.1 reporting (“Infosys”). In this reporting line ONLY common result indicators are reported.
- In the course of the AIR. In this reporting line BOTH common and programme specific result indicators are reported. Some basic rules apply for both reporting lines including:
 - Result indicator values are aggregated at the Specific Objective level; for example result indicator 1.3 “Change in net profit” relates to three Specific Objectives, namely 1(c), 1(d), 1(e). The aggregated value, derived by the individual operations, is different for all three Specific Objectives.
 - Financial data are reported in EUR; if the MS has a different currency then the proper conversion steps are necessary (see also CPR, Article 133).
 - Decimals: the integral part of a number is separated from its fractional part by a point, not a comma. Not more than two digits should be included after the decimal separator.
 - Where numbers must be rounded, round up digits ≥ 5 , otherwise round down.
 - Do not group thousands with commas, points or hard spaces; example “10000”.
 - Show percentages with the “%” symbol preceded by a hard space. Follow the above rule for rounding, noting that, for example, “3.50 %” implies greater precision than “3.5 %”.

Please send specific questions to the FAME Support Unit: FAME@fame-emff.eu.

2 Context Indicators

2.1 UP1 Promoting environmentally sustainable, resource efficient, innovative, competitive and knowledge based fisheries

2.1.1 Fishing fleet

Indicator Code	CI_UP1.1
Indicator Title	Fishing fleet
Sub-indicators	(a) number of vessels (b) kW (c) GT
Definition	Size of the fleet expressed in number of vessels, installed power and gross tonnage (as in the fishing fleet register). (a) Number is the number of vessels qualifying as fishing vessels in a given MS according to Council Regulation (EEC) No. 1380/2013 and further national regulations. (b) Power is the sum of the power of the engines of all vessels expressed in kW as defined in the International System of Units (SI). (c) Gross tonnage is the sum of the overall internal volume of all vessels expressed in GT as defined by the International Maritime Organisation (IMO) and the IS.
Measurement Unit	Number of vessels kW GT
Data Source	National register of fishing vessels

2.1.2 Gross value added per FTE employee

Indicator Code	CI_UP1.2
Indicator Title	Gross value added per FTE employee (thousand EUR per FTE employee)
Sub-indicators	None
Definition	Gross value added (GVA) is calculated as revenue minus costs directly attributed to the purchase of inputs, i.e. all operating costs excluding labour and depreciation. An FTE employee is an employee in full-time employment based on the national reference number for full-time employment, e.g. 1720 hours/year.
Measurement Unit	Thousand EUR/FTE
Data Source	STECF analysis of DCF fleet economic data. Data is supplemented by the respective national institutions responsible for collecting and transmitting DCF data in the MS.

2.1.3 Net profit

Indicator Code	CI_UP1.3
Indicator Title	Net profit (thousand EUR)
Sub-indicators	None
Definition	The difference between revenue and total costs (costs directly attributable to the fishing activity plus other variable and non-variable costs including depreciation and opportunity costs of capital)
Measurement Unit	Thousand EUR
Data Source	STECF analysis of DCF fleet economic data. Data is supplemented by the respective national institutions responsible for collecting and transmitting DCF data in the MS.

2.1.4 Return on investment of fixed tangible assets

Indicator Code	CI_UP1.4
Indicator Title	Return on investment of fixed tangible assets (%)
Sub-indicators	None
Definition	The ratio of net profit divided by total value of fixed tangible assets (i.e. value of tangible property used in production, e.g. the vessels) which are used repeatedly or continuously over several accounting periods
Measurement Unit	%
Data Source	STECF analysis of DCF fleet economic data. Data is supplemented by the respective national institutions responsible for collecting and transmitting DCF data in the MS.

2.1.5 Indicators of biological sustainability

Indicator Code	CI_UP1.5 (a) and (b)
Indicator Title	Indicators of biological sustainability
Sub-indicators	(a) Sustainable harvest indicator (b) Stock-at-risk indicator
Definition	(a) Number of segments of the national fleet which have a sustainable harvest indicator (SHI) greater than 1. The SHI is defined in the “Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Article 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy” (COM(2014) 545 final). (b) Number of segments of the national fleet which take more than 10% of their catches from stocks which are at risk, as defined by the “Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Article 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy” (COM(2014) 545 final).
Measurement Unit	(a) Number of segments (b) Number of segments
Data Source	MSs reports submitted in application of Article 22 of Reg. (EU) 1380/2013.

	Data supplemented by the respective institutions responsible for collecting and transmitting DCF data in the MS.
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2.1.6 Fuel efficiency of fish capture

Indicator Code	CI_UP1.6
Indicator Title	Fuel efficiency of fish capture (litres fuel/tonne landed catch)
Sub-indicators	–
Definition	The ratio between the quantity of energy consumed (expressed as litres of fuel) and the quantity of output (expressed in tonnes of live weight of landings)
Measurement Unit	Litres/tonne
Data Source	STECF analysis of DCF fleet economic data. Data supplemented by the respective institutions responsible for collecting and transmitting DCF data in the MS.

2.1.7 Ecosystem indicators

Indicator Code	CI_UP1.7
Indicator Title	Ecosystem indicators as defined for the implementation of Directive 2008/56/EC of the European Parliament and of the Council
Sub-indicators	(a) Extent of the seabed significantly affected by human activities for the different substrate types (%). (b) Rate of incidental catches of cetaceans in fisheries (by-catch per unit effort).
Definition	(a) Measure of the extent of the seabed significantly affected by human activities for the different substrate types (in accordance to Commission Decision 2010/477/EU of 1 September 2010 on criteria and methodological standards on good environmental status of marine waters) in comparison to the total seabed area. (b) Rate of incidental catches of cetaceans is the ratio of the number of live and dead cetacean specimens incidentally caught by fishing vessels belonging to the fleet segment defining the fishery divided by days at sea (i.e. total of any continuous period of 24 h (or part thereof) during which fishing vessels belonging to the segment are present within the geographical area defining the fishery).
Measurement Unit	(a) % (b) Number/day
Data Source	MS reports required by Directive 2008/56/EC. Data supplemented by the respective institutions responsible for collecting and transmitting DCF data in the MS.

2.1.8 Number of employed

Indicator Code	CI_UP1.8
Indicator Title	Number of employed (FTE)
Sub-indicator	(a) Number of employed (FTE) including male and female (b) Number of employed (FTE) female

Definition	(a) Number of persons in some form of compensated employment in the fisheries or maritime sector (employed or self-employed for pay, profit or family gain) regardless of sex/gender. (b) Number of female persons in some form of compensated employment in the fisheries or maritime sector (employed or self-employed for pay, profit or family gain). Both are expressed in full-time equivalent (FTE) based on the national FTE coefficient.
Measurement Unit	(a) FTE (b) FTE
Data Source	(a) STECF analysis of DCF fleet economic data. (b) National sources, if available Data supplemented by the respective institutions responsible for collecting and transmitting DCF data in the MS.

2.1.9 Incidence of work-related injuries and accidents

Indicator Code	CI_UP1.9
Indicator Title	Incidence of work-related injuries and accidents
Sub-indicators	(a) Number of work-related injuries and accidents. (b) % in relation to total fishers.
Definition	(a) An injury is a bodily lesion at organic level resulting from acute exposure to energy (be mechanical, thermal, electrical, chemical, or radiant) interacting with the body in amounts or rates that exceed the threshold of physiological tolerance. The definition of a “work-related injury” varies in different MSs but usually includes any injury that occurs when the person is at a place for the purpose of working, i.e. on board a vessel. (b) Sub-indicator (a) divided by the total number of fishers in a given year. A fisher is “any person carrying out an occupation on board of a fishing vessel, including trainees and apprentices but excluding shore personnel carrying out work on board a vessel at the quayside and port pilots” (according to Council Directive 93/103//EC – Article 2 (e)).
Measurement Unit	(a) Number (b) %
Data Source	Coastguard, health ministries, labour inspectorates, trade unions

2.1.10 Coverage of marine protected areas

Indicator Code	CI_UP1.10/CI_UP6.2
Indicator Title	Coverage of marine protected areas (MPAs)
Sub-indicators	(a) Coverage of Natura 2000 areas designated under the Birds and Habitats Directives (km ²) (b) Coverage of other spatial protection measures under Article 13.4 of Directive 2008/56/EC (km ²)
Definition	(a) A marine area belonging to the Natura 2000 network of areas (Special Protection Areas (SPA) under the Birds Directive and Special Areas of Conservation (SAC) under the Habitats Directive) designated to conserve natural habitats and species of wildlife which are rare, endangered or vulnerable in the European Union. (b) An area under a spatial protection measure in the sense of Article 13.4 of Directive

	2008/56/EC. A spatial protection measure is any spatial restriction or management of human activities in order to protect biodiversity and support or terminate certain industrial or leisure activities which may have effects on biodiversity protection/conservation.
Measurement Unit	(a) km ² (b) km ²
Data Source	DG ENV Natura 2000 Barometer: http://ec.europa.eu/environment/nature/natura2000/barometer/index_en.htm . National databases.

2.2 UP2 Fostering environmentally sustainable, resource efficient, innovative, competitive and knowledge based aquaculture

2.2.1 Volume of aquaculture production

Indicator Code	CI_UP2.1
Indicator Title	Volume of aquaculture production (tonnes)
Sub-indicators	None
Definition	Annual volume (tonnes) of production of aquaculture farms, excluding hatcheries and nurseries. “Volume” means: (a) for fish, crustaceans and molluscs and other aquatic animals, the live weight equivalent of the product. For molluscs, the live weight shall include the weight of the shell; (b) for aquatic plants, the wet weight of the product. (Source: Reg. 762/2008, Annex I)
Measurement Unit	Tonnes
Data Source	National institutions responsible for transmitting DCF data on aquaculture statistics or EUROSTAT (the best source should be selected on the national level).

2.2.2 Value of aquaculture production

Indicator Code	CI_UP2.2
Indicator Title	Value of aquaculture production (thousand EUR)
Sub-indicators	None
Definition	Annual value (EUR) of sales of aquaculture farms, excluding hatcheries and nurseries
Measurement Unit	Thousand EUR
Data Source	National institutions responsible for transmitting DCF data on aquaculture statistics or EUROSTAT (the best source should be selected on the national level).

2.2.3 Net profit

Indicator Code	CI_UP2.3
Indicator Title	Net profit (thousand EUR)
Sub-indicators	None
Definition	The difference between revenue and overall costs (costs directly attributable to an activity and other variable and non-variable costs, depreciation and opportunity costs of capital)
Measurement Unit	Thousand EUR
Data Source	National institutions responsible for transmitting DCF data on aquaculture statistics or other national sources (for MSs with no or limited contribution to DCF aquaculture statistics)

2.2.4 Volume of production organic aquaculture

Indicator Code	CI_UP2.4
Indicator Title	Volume of production organic aquaculture (tonnes)
Sub-indicators	None
Definition	Production (in tonnes) of aquaculture enterprises holding an organic certificate according to national legislation and the provisions of Council Regulation (EC) No. 834/2007, excluding hatcheries and nurseries. “Volume” means: (a) for fish, crustaceans and molluscs and other aquatic animals, the live weight equivalent of the product. For molluscs, the live weight shall include the weight of the shell. (b) for aquatic plants, the wet weight of the product. (Source: Reg. 762/2008, Annex I)
Measurement Unit	Tonnes
Data Source	National institutions

2.2.5 Volume of production in recirculation system

Indicator Code	CI_UP2.5
Indicator Title	Volume of production recirculation system (tonnes)
Sub-indicators	None
Definition	Production of aquaculture enterprises using recirculation systems, i.e. systems where the water is reused after some form of treatment (e.g. filtering, solids removal, ammonia removal, CO ₂ removal and oxygenation). ‘Volume’ means: (a) for fish, crustaceans and molluscs and other aquatic animals, the live weight equivalent of the product. For molluscs, the live weight shall include the weight of the shell; (b) for aquatic plants, the wet weight of the product. (Source: Reg. 762/2008, Annex I)
Measurement Unit	Tonnes

Data Source	Not collected in all MSs at present. Some data available in EUROSTAT (see Annex II of Regulation 762/2008). National sources if existing.
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2.2.6 Number of employed

Indicator Code	CI_UP2.6
Indicator Title	Number of employed (FTE)
Sub-indicators	(a) Number of employed (FTE) including male and female (b) Number of employed (FTE) female
Definition	(a) Number of persons in some form of compensated employment in the aquaculture sector (employed or self-employed for pay, profit or family gain) regardless of sex/gender. (b) Number of female persons in some form of compensated employment in the aquaculture sector (employed or self-employed for pay, profit or family gain). Both are expressed in full-time equivalent (FTE) based on the national FTE coefficient.
Measurement Unit	(a) FTE (b) FTE
Data Source	STECF/DCF: The Economic Performance of the EU Aquaculture Sector. Institution responsible for collecting aquaculture data under DCF or other national sources (for MSs with no or limited contribution to DCF aquaculture statistics).

2.3 UP 3: Fostering the implementation of the CFP

2.3.1 Serious infringements in the MS

Indicator Code	CI_UP3.A1
Indicator Title	Serious infringements in the MS (total number in the last 7 years)
Sub-indicators	None
Definition	Serious infringements (e.g. fishing without a valid licence, not reporting catch or catch-related data, fishing in a restricted area, fishing on a protected stock, using prohibited or non-compliant fishing gear, falsifying or concealing the identification markings of the vessel, obstructing the work of inspectors etc.) are defined in Article 3, Par.1, Reg. 1005/2008 (the "IUU Regulation")
Measurement Unit	Total number in the last 7 years
Data Source	National register of infringements, required by the Control Regulation (Reg. 1224/2009, Article 93)

2.3.2 Landings that are subject to physical control

Indicator Code	CI_UP3.A2
Indicator Title	Landings that are subject to physical control (%)
Sub-indicators	None
Definition	Landings controlled by the fisheries inspectors divided by the total number of landings per year
Measurement Unit	%
Data Source	National database, required by the Control Regulation (Reg. 1224/2009, Article 78)

2.3.3 Existing resources available for control

Indicator Code	CI_UP3.A3
Indicator Title	Existing resources available for control
Sub-indicators	(a) Control vessels and aircrafts available (number) (b) Number of employed (FTE) (c) Budgetary allocation (evolution last 5 years, thousand EUR) (d) Fishing vessels equipped with ERS and/or VMS (number)
Definition	(a) Number of vessels (a1) plus number of aircraft (a2) available for fisheries control in a given year (b) Hours worked for fisheries inspection activities divided by the national FTE standard (see definition of FTE above) (c) Total annual budget allocated to fisheries control in the last 5 years (d) Number of fishing vessels equipped with ERS and/or VMS
Measurement Unit	(a) (a1)+(a2) Number of units (b) FTE (c) Thousand EUR (d) Number of units
Data Source	National control agency/other body responsible (e.g. coastguard)

2.3.4 Data collection measures: fulfilment of data calls under DCF

Indicator Code	CI_UP3.B1
Indicator Title	Data collection measures: fulfilment of data calls under DCF (%)
Sub-indicators	None
Definition	Number of data calls by JRC and ICES to which the MS responded, as a percentage of the total number of data calls addressed to the specific MS from these two institutions
Measurement Unit	%
Data Source	National DCF correspondent

2.4 UP4 Increasing employment and territorial cohesion

2.4.1 Extent of coastline, main waterways and main water bodies

Indicator Code	CI_UP4.1
Indicator Title	Extent of coastline, main waterways and main water bodies
Sub-indicators	(a) Extent of coastline (km) (b) Extent of main waterways (km) (c) Extent of main water bodies (km ²)
Definition	(a) The “coastline” is the strip of land that forms the boundary between the land and the sea (b) “Main waterways” are larger rivers and other flowing surface waters flowing for the most part on the surface of the land but which may flow underground for part of their course (c) “Main water bodies” are larger bodies of natural or manmade standing inland surface water, i.e. a lake, a reservoir, marshes, transitional water or a stretch of coastal water separately identified from the adjacent sea
Measurement Unit	(a) km (b) km (c) km ²
Data Source	National authority of environment/water directorate and EEA

2.5 UP5 Fostering marketing and processing

2.5.1 Producer organisations, associations of producer organisations, Inter-branch organisations

Indicator Code	CI_UP5.1
Indicator Title	Producer organisations (POs), associations of POs, inter-branch organisations (IBOs)
Sub-indicators	(a) Number of POs (b) Number of associations of POs (c) Number of IBOs (d) Number of producers or operators per PO (e) Number of producers or operators per association of POs (f) Number of producers or operators per IBO (g) % of producers or operators member of PO (h) % of producers or operators member of association of POs (i) % of producers or operators member of IBO
Definition	(a), (b) and (c): Number of POs, associations of POs and IBOs recognised by MSs as laid out in Regulation (EU) No 1379/2013 (d), (e) and (f): Number of producers that are members of POs and /or associations of POs, and number of operators that are members of IBOs (g), (h) and (i): (d), (e) and (f) respectively divided by total number of producers or operators
Measurement Unit	(a), (b), (c), (d), (e), (f): Number (g), (h), (i): %

Data Source	<p>(a), (b) and (c): Communication to Commission on recognised POs, associations of POs, and IBOs, or database on recognised POs, associations of POs, and IBOs</p> <p>(d), (e) and (f): POs, associations, and IBOs (respectively)</p> <p>(g), (h) and (i): DCF data for total number of producers/operators in each MS, and values from (d), (e) and (f) for numbers that are members of POs, associations, and IBOs.</p> <p>Data from national competent authorities in charge of recognition of POs/Associations of POs/IBOs, approval of Production and Marketing Plans (PMPs) and of annual reporting in the context of Article 28(5) of Regulation (EU) No 1379/2013. Data supplemented by the respective institutions responsible for collecting and transmitting fisheries statistical data in the MSs.</p>
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2.5.2 Annual turnover of EU marketed production

Indicator Code	CI_UP5.2
Indicator Title	Annual value of turnover of EU marketed production
Sub-indicators	<p>(a) Annual value of turnover of EU marketed production (thousand EUR)</p> <p>(b) % of production placed on the market (value) by POs</p> <p>(c) % of production placed on the market (value) by association of POs</p> <p>(d) % of production placed on the market (value) by IBOs</p> <p>(e) % of production placed on the market (volume) by POs</p> <p>(f) % of production placed on the market (volume) by association of POs</p> <p>(g) % of production placed on the market (volume) by IBOs</p>
Definition	<p>(a) Turnover as defined for purposes of DCF</p> <p>(b) Value of products placed on the market within the meaning of and in the context of Article 5(f) of Regulation (EU) No 1379/2013 by members of POs divided by (a)</p> <p>(c) Value of products placed on the market by members of associations of POs divided by (a)</p> <p>(d) Value of products marketed by IBOs divided by (a)</p> <p>(e) Volume of products placed on the market by members of POs divided by total volume of MS production marketed in the EU</p> <p>(f) Volume of products placed on the market by members of associations of POs divided by total volume of MS production marketed in the EU</p> <p>(g) Volume of products marketed by IBOs divided by total volume of MS production marketed in the EU</p>
Measurement Unit	<p>(a) Thousand EUR</p> <p>(b –(g) %</p>
Data Source	<p>(a) As per DCF</p> <p>(b) and (e), (c) and (f), and (b) and (g): POs, associations of POs and IBOs for value/volume of products placed on market, and indicator (a) (for value) and DCF/EUMOFA data for total volume of products on market against which product placed on the market by POs associations of POs and IBOs should be compared. Data from national competent authorities in charge of recognition of POs/Associations of POs/IBOs, approval of Production and Marketing Plans (PMPs) and of annual reporting in the context of Regulation (EU) No 1379/2013.</p>

2.6 UP6 Fostering the implementation of the Integrated Maritime Policy

2.6.1 Common Information Sharing Environment for the surveillance of the EU maritime domain

Indicator Code	CI_UP.6.1
Indicator Title	Common Information Sharing Environment (CISE) for the surveillance of the EU maritime domain (%)
Sub-indicators	None
Definition	Level of coverage of the required maritime surveillance information (approximately 500 data elements) as established by the Technical Advisory Group (TAG) on integrated maritime surveillance representing all seven CISE relevant sectors (transport, environment, border control, general law enforcement, customs, fisheries and navies) and of all relevant agencies (EMSA, EFCA, Frontex, Europol, EEA and EDA)
Measurement Unit	%
Data Source	“Gap table” as included in the “restricted to competent authorities” forum of the MS Expert Sub-Group on integrated maritime surveillance; MSs can also use other sources to illustrate the increase in information exchange and coverage in the context of CISE

2.6.2 Coverage of marine protected areas (MPAs)

For CI_U.6.2 “Coverage of marine protected areas (MPAs)” see UP1, CI_UP.1.10

3 Result Indicators

3.1 UP1 Promoting environmentally sustainable, resource efficient, innovative, competitive and knowledge based fisheries

3.1.1 Change in the value of production

Indicator Code	RI_UP1.1
Indicator Title	Change in the value of production (thousand EUR)
Sub-indicators	None
Measurement Unit	Thousand EUR
Definition	Change in the total annual revenue from the sale of fish and related fishery products at the beneficiary level (fisher/enterprise)
Definition – further clarification	<ul style="list-style-type: none"> • The indicator refers to revenue ONLY from fish and related fishery products • Any other sources of revenue (e.g. as appearing in the profit-loss account) should be excluded unless of minimal importance, e.g. contributing less than 10% of the revenue
Specific Objectives	<p>1(d) Enhancement of the competitiveness and viability of fisheries enterprises, including of small-scale coastal fleets, and the improvement of safety or working conditions</p> <p>1(e) Provision of support to strengthen technological development and innovation, including increasing energy efficiency, and knowledge transfer</p>
Measures in SFC	<p>Article 26 Innovation (+ Article 44.3 Inland fishing)</p> <p>Article 27 Advisory services (+ Article 44.3 Inland fishing)</p> <p>Article 28 Partnerships between fishermen and scientists (+ Article 44.3 Inland fishing)</p> <p>Article 30 Diversification and new forms of income (+ Article 44.4 Inland fishing)</p> <p>Article 31 Start-up support for young fishermen (+ Article 44.2 Inland fishing)</p> <p>Article 32 Health and safety (+ Article 44.1.b Inland fishing)</p> <p>Article 33 Temporary cessation of fishing activities</p> <p>Article 35 Mutual funds for adverse climatic events and environmental incidents</p> <p>Article 40.1.h Protection and restoration of marine biodiversity – schemes for the compensation of damage to catches caused by mammals and birds</p> <p>Article 41.1.a, b, c Energy efficiency and mitigation of climate change – on board investments; energy efficiency audits and schemes; studies to assess the contribution of alternative propulsion systems and hull designs (+ Article 44.1.d Inland fishing)</p> <p>Article 41.2 Energy efficiency and mitigation of climate change – Replacement or modernisation of main or ancillary engines (+ Article 44.1.d Inland fishing)</p> <p>Article 42 Added value, product quality and use of unwanted catches (+ Article 44.1.e Inland fishing)</p> <p>Article 43.1 + 3 Fishing ports, landing sites, auction halls and shelters – investments improving fishing port and auction hall infrastructures or landing sites and shelters; construction of shelters to improve safety of fishermen (+</p>

	Article 44.1.f Inland fishing)
Inputs from the beneficiary	<ul style="list-style-type: none"> • Total annual revenue ONLY from sale of fish and related fishery products BEFORE the operation • Total annual revenue ONLY from sale of fish and related fishery products AFTER the operation
Optional inputs from other sources	<p>MS Research and/or technical institutes might be able to deliver for the OP target setting:</p> <ul style="list-style-type: none"> • Trends in the value of production of operators in the MS (related to fleet segments). <p>Similar information may be taken from the Annual Economic Report on the EU Fishing Fleet.</p>
Inputs from the MA	–
Reference period for the single operation	<p>The time directly before the operation and after completion, for which the most current annual values are available.</p> <p>If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.</p>
Calculation	<p style="text-align: center;">Change in the value of production (thousand EUR) = B – A</p> <p>Where:</p> <ul style="list-style-type: none"> • A = total annual revenue ONLY from sale of fish and related fishery products BEFORE the operation • B = total annual revenue ONLY from sale of fish and related fishery products AFTER the operation
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Total annual revenue ONLY from sale of fish and related fishery products before the operation for which the most current annual reports are available
Assumptions for target setting at OP level	<p>Number of operations × average change in the value of production of operators.</p> <p>If the MA can estimate the number of operations in addition to the fleet segment that will be involved in the operations, then the above targets can be further detailed by using weighted averages instead of simple averages.</p>
Comments	<p>Beneficiary declarations cross-checked with official submission of relevant documents as established by Regulation (EC) 1224/2009 (i.e. logbooks, sales notes) when relevant.</p> <p>For cases where no reporting obligation exists (e.g. due to the size of the vessel or for inland fishing), beneficiary declarations should be used.</p>

3.1.2 Change in the volume of production

Indicator Code	RI_UP1.2
Indicator Title	Change in the volume of production (tonnes)
Sub-indicators	None
Measurement Unit	Tonnes
Definition	Change in the annual total volume of live weight of landings at the beneficiary level (fisher/enterprise)
Definition – further clarification	<ul style="list-style-type: none"> • The indicator refers to volume intended for sale

Specific Objectives	<p>1(d) Enhancement of the competitiveness and viability of fisheries enterprises, including of small scale coastal fleets, and the improvement of safety or working conditions</p> <p>1(e) Provision of support to strengthen technological development and innovation, including increasing energy efficiency, and knowledge transfer</p>
Measures in SFC	<p>Article 26 Innovation (+ Article 44.3 Inland fishing)</p> <p>Article 27 Advisory services (+ Article 44.3 Inland fishing)</p> <p>Article 28 Partnerships between fishermen and scientists (+ Article 44.3 Inland fishing)</p> <p>Article 30 Diversification and new forms of income (+ Article 44.4 Inland fishing)</p> <p>Article 31 Start-up support for young fishermen (+ Article 44.2 Inland fishing)</p> <p>Article 32 Health and safety (+ Article 44.1.b Inland fishing)</p> <p>Article 33 Temporary cessation of fishing activities</p> <p>Article 35 Mutual funds for adverse climatic events and environmental incidents</p> <p>Article 40.1.h Protection and restoration of marine biodiversity – schemes for the compensation of damage to catches caused by mammals and birds</p> <p>Article 41.1.a, b, c Energy efficiency and mitigation of climate change – on board investments; energy efficiency audits and schemes; studies to assess the contribution of alternative propulsion systems and hull designs (+ Article 44.1.d Inland fishing)</p> <p>Article 41.2 Energy efficiency and mitigation of climate change – Replacement or modernisation of main or ancillary engines (+ Article 44.1.d Inland fishing)</p> <p>Article 42 Added value, product quality and use of unwanted catches (+ Article 44.1.e Inland fishing)</p> <p>Article 43.1 + 3 Fishing ports, landing sites, auction halls and shelters – investments improving fishing port and auction hall infrastructures or landing sites and shelters; construction of shelters to improve safety of fishermen (+ Article 44.1.f Inland fishing)</p>
Inputs from the beneficiary	<ul style="list-style-type: none"> • Total annual volume of live weight of landings BEFORE the operation • Total annual volume of live weight of landings AFTER the operation
Optional inputs from other sources	<p>Research and/or technical institutes or similar institutions in the MSs might be able to deliver for the OP target setting:</p> <ul style="list-style-type: none"> • Trends in the volume of production of operators in the MS (related to fleet segments)
Inputs from the MA	–
Reference period for the single operation	<p>The time directly before the operation and after completion, for which the most current annual values are available.</p> <p>If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.</p>
Calculation	<p>Change in the volume of production (tonnes) = B – A</p> <p>Where:</p> <ul style="list-style-type: none"> • A = total annual volume of live weight of landings BEFORE the operation • B = total annual volume of live weight of landings AFTER the operation
Baseline for the single	Total annual volume of live weight of landings before the operation for which

operation (Reg.480/2014, Annex III, field 37)	the most current annual reports are available
Assumptions for target setting at OP level	<p>Number of operations × average change in the volume of production of an operator</p> <p>If the MA can estimate the number of operations in addition to the fleet segment that will be involved in the operations, then the above targets can be further detailed by using weighted averages instead of simple averages.</p>
Comments	<p>Beneficiary declarations cross-checked with official submission of relevant documents as established by Reg. (EC) 1224/2009 (i.e. logbooks, sales notes) when relevant, or with other specific documents the MS may require for vessels of less than 10 m.</p> <p>For the cases where no reporting obligation exists (e.g. due to the size of the vessel, the volume of the catch or in inland fisheries), beneficiary declarations should be used.</p>

3.1.3 Change in net profits

Indicator Code	RI_UP1.3
Indicator Title	Change in net profits (thousand EUR)
Sub-indicators	None
Measurement Unit	Thousand EUR
Definition	<p>The change in the difference between revenue and overall costs (variable and non-variable costs directly attributable to a fishing activity) for a given accounting period at the beneficiary level (fisher/enterprise).</p> <p>In the context of the EMFF result indicators, net profit should not be reduced by interests and taxes payable (and depreciation and amortisation if applicable to the rules of the beneficiary’s bookkeeping), i.e. the net profit is EBITDA or EBIT (depending on the beneficiary’s bookkeeping).</p>
Definition – further clarification	<ul style="list-style-type: none"> • Beneficiary declarations based on their profit and loss accounts or similar declarations should be used. • For the cases where no or a simplified book-keeping obligation exists, beneficiary estimations should be used. • The indicator excludes interest, taxes, depreciation and opportunity costs for the sake of simplicity and reliability. • The indicator refers to net profit ONLY from revenue related to fishery activities. • Net profit from any other sources of revenue (e.g. as appearing in the profit-loss account) should be excluded unless of minimal importance, e.g. contributing less than 10% of the net profit. • An exception to this rule exists for operations under “Article 30 Diversification and new forms of income (+ Article 44.4 Inland fishing)”. In those cases only the net profit from the “diversification” activities should be considered.
Specific Objectives	1(c) Ensuring a balance between fishing capacity and available fishing

	<p>opportunities</p> <p>1(d) Enhancement of the competitiveness and viability of fisheries enterprises, including of small scale coastal fleets, and the improvement of safety or working conditions</p> <p>1(e) Provision of support to strengthen technological development and innovation, including increasing energy efficiency, and knowledge transfer</p>
Measures in SFC	<p>Article 26 Innovation (+ Article 44.3 Inland fishing)</p> <p>Article 27 Advisory services (+ Article 44.3 Inland fishing)</p> <p>Article 28 Partnerships between fishermen and scientists (+ Article 44.3 Inland fishing)</p> <p>Article 30 Diversification and new forms of income (+ Article 44.4 Inland fishing)</p> <p>Article 31 Start-up support for young fishermen (+ Article 44.2 Inland fishing)</p> <p>Article 32 Health and safety (+ Article 44.1.b Inland fishing)</p> <p>Article 33 Temporary cessation of fishing activities</p> <p>Article 34 Permanent cessation of fishing activities</p> <p>Article 35 Mutual funds for adverse climatic events and environmental incidents</p> <p>Article 36 Support to systems of allocation of fishing opportunities</p> <p>Article 40.1.h Protection and restoration of marine biodiversity – schemes for the compensation of damage to catches caused by mammals and birds</p> <p>Article 41.1.a, b, c Energy efficiency and mitigation of climate change – on board investments; energy efficiency audits and schemes; studies to assess the contribution of alternative propulsion systems and hull designs (+ Article 44.1.d Inland fishing)</p> <p>Article 41.2 Energy efficiency and mitigation of climate change – Replacement or modernisation of main or ancillary engines (+ Article 44.1.d Inland fishing)</p> <p>Article 42 Added value, product quality and use of unwanted catches (+ Article 44.1.e Inland fishing)</p> <p>Article 43.1 + 3 Fishing ports, landing sites, auction halls and shelters – investments improving fishing port and auction hall infrastructures or landing sites and shelters; construction of shelters to improve safety of fishermen (+ Article 44.1.f Inland fishing)</p>
Inputs from the beneficiary	<ul style="list-style-type: none"> • Annual EBIT (or EBITDA) BEFORE the operation • Annual EBIT (or EBITDA) AFTER the operation
Optional inputs from other sources	<p>Research and/or technical institutes or similar institutions in the MSs might be able to deliver for the OP target setting:</p> <ul style="list-style-type: none"> • Trends in the EBIT (or EBITDA) of operators in the MS (related to fleet segments)
Inputs from the MA	–
Reference period for the single operation	<p>The time directly before the operation and after completion, for which the most current annual values are available.</p> <p>If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.</p>
Calculation	<p style="text-align: center;">Change in net profits (thousand EUR) = B – A</p> <p>Where:</p>

	<ul style="list-style-type: none"> • A = annual EBIT (or EBITDA) BEFORE the operation • B = annual EBIT (or EBITDA) AFTER the operation
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Annual EBIT before the operation for which the most current annual reports are available.
Assumptions for target setting at OP level	<p>Number of operations × average change in the EBIT of operators</p> <p>If the MA can estimate the number of operations in addition to the fleet segment that will be involved in the operations, then the above targets can be further detailed by using weighted averages instead of simple averages.</p>
Comments	

3.1.4 Change in unwanted catches

Indicator Code	RI_UP1.4 (a) and (b)
Indicator Title	Change in unwanted catches
Sub-indicators	(a) Change in unwanted catches (tonnes) (b) Change in unwanted catches (%)
Measurement Unit	(a) Tonnes (b) %
Definition	(a) Change of absolute volume of catches of untargeted species and/or individuals below the applicable minimum conservation reference size, subject to the landing obligation (LO) detailed in Article 15 of Reg. (EU) 1380/2013 at the beneficiary level (fisher/enterprise) (b) Change of the ratio of sub-indicator (a)/ total catches of species at the beneficiary level (fisher/enterprise)
Definition – further clarification	<ul style="list-style-type: none"> • “Change” in the sense of “reduction” is expressed as a negative value • Reference is total volume • Quota flexibility mechanisms are not considered
Specific Objectives³	1(a) Reduction of the impact of fisheries on the marine environment, including the avoidance and reduction, as far as possible, of unwanted catches
Measures in SFC	<p>Article 37 Support for the design and implementation of conservation measures and regional cooperation</p> <p>Article 38 Limiting the impact of fishing on the marine environment and adapting fishing to the protection of species (+ Article 44.1.c Inland fishing)</p> <p>Article 39 Innovation linked to the conservation of marine biological resources (+ Article 44.1.c Inland fishing)</p> <p>Article 40.1.a Protection and restoration of marine biodiversity – collection of lost fishing gear and marine litter</p> <p>Article 43.2 Fishing ports, landing sites, auction halls and shelters – investments to facilitate compliance with the obligation to land all catches</p>
Inputs from the beneficiary	<ul style="list-style-type: none"> • Total catches of species subject to the landing obligation BEFORE the operation • Total catches of species subject to the landing obligation AFTER the

³ See EMFF Article 6

	operation
Optional inputs from other sources	<p>Research institutes or similar institutions in the MSs should be able to deliver:</p> <ul style="list-style-type: none"> • Indices on average volume of unwanted catches (i.e. catches of untargeted species and/or individuals below the applicable minimum conservation reference size) for specific fleet segments as per national statistics; • Coefficients for the reduction in the volume of unwanted catches through the use of selective gear types certified by research institutes and accepted and financed through the OP operations. <p>Research on selective gears by the research institutes highlighted some variability due to factors such as seasonality and fishing grounds. The selected coefficient might therefore have to be adjusted to the specifics of the fishery. If statistics for national certification of gear reduction are not available, alternatives from other MSs or international institutions can be used.</p>
Inputs from the MA	<p>The MA should be able to:</p> <ul style="list-style-type: none"> • match the characteristics of the beneficiary to one of the fleet segments categorised by the MS/national research institutes in order to select the appropriate index; • verify that the selective gear financed through the OP operations is included in the list of types of selective gears for which standard coefficients exist, and use the coefficient to calculate the change in unwanted catches; • calculate the values to be reported for each operation.
Reference period for the single operation	<p>The time directly before the operation and after completion, for which the most current annual values exist.</p> <p>If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.</p>
Calculation	<p>(a) Change in unwanted catches (tonnes) = $(B \times C \times (1 - D)) - (A \times C)$</p> <p>Where:</p> <ul style="list-style-type: none"> • A = total catches of species concerned by the landing obligation BEFORE the operation • B = total catches of species concerned by the landing obligation AFTER the operation • C = index from scientific publication on average volume of unwanted catches for the specific fleet segment • D = coefficient catches from scientific publication for the reduction in the volume of unwanted catches through the use of specific selective gear type <p>(b) Change in unwanted catches (%) = D, where D is defined as above</p>
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	<p>It is difficult to establish a baseline for this indicator due to the lack of historical data.</p> <p>Hence the OP monitoring will have to rely on the baseline data on total catches and on indexes and coefficients accepted by MSs as reliable, produced by relevant research institutes, or through available records for the fisheries that have implemented the LO. The baseline figure will thus be calculated and not</p>

	measured. For the purposes of the OP monitoring this should be sufficient. Indicative data available at a later date, e.g. based on discards sampling implemented by MSs or other organisations from data related to the LO, can be used for evaluation purposes to verify and/or calibrate the indexes and coefficients used.
Assumptions for target setting at OP level	$(a) \text{ Change in unwanted catches (tonnes)} = (\text{No. of operations} \times B_{\text{average}} \times C_{\text{average}} \times (1 - D_{\text{average}})) - (A_{\text{average}} \times C_{\text{average}})$ $(b) \text{ Change in unwanted catches (\%)} = D_{\text{average}}$ <p>If the MA can estimate the number of operations in addition to the fleet segment that will be involved in the operations, then the above targets can be further detailed by using weighted averages instead of simple averages.</p>
Comments	Useful inputs for the calculation of this indicator might come from operations under Article 26, 27, 28 and 39. The MA should monitor outputs of relevant OP operations.

3.1.5 Change in fuel efficiency of fish capture

Indicator Code	RI_UP1.5
Indicator Title	Change in fuel efficiency of fish capture (in litres of fuel/tonnes landed catch)
Sub-indicators	None
Measurement Unit	Litres/tonne
Definition	Change in the ratio between the quantities of energy consumed (expressed as litres of fuel) and the quantity of output (expressed in tonnes of live weight of landings for human consumption) at the beneficiary level (fisher/enterprise)
Definition – further clarification	<ul style="list-style-type: none"> • “Change” in the sense of “reduction” is expressed as a negative value; in the case of the engine change, only the main engine should be considered. • Where fuel consumption is recorded as costs rather than in litres, average annual prices for fuel should be used. These are usually available from fuel suppliers or vessel operators. • In some MSs vessel fuel is recorded in mass and not volume units for bigger vessels (tonnes instead of litres); in these cases, the conversion factor of approximately 1 litre = 0.82 kg should be applied.
Specific Objectives	<p>1(a) Reduction of the impact of fisheries on the marine environment, including the avoidance and reduction, as far as possible, of unwanted catches</p> <p>1(b) Protection and restoration of aquatic biodiversity and ecosystems</p> <p>1(d) Enhancement of the competitiveness and viability of fisheries enterprises, including of small scale coastal fleets, and the improvement of safety or working conditions</p> <p>1(e) Provision of support to strengthen technological development and innovation, including increasing energy efficiency, and knowledge transfer</p>
Measures in SFC	Article 26 Innovation (+ Article 44.3 Inland fishing)

	<p>Article 28 Partnerships between fishermen and scientists (+ Article 44.3 Inland fishing)</p> <p>Article 37 Support for the design and implementation of conservation measures and regional cooperation</p> <p>Article 38 Limiting the impact of fishing on the marine environment and adapting fishing to the protection of species (+ Article 44.1.c Inland fishing)</p> <p>Article 39 Innovation linked to the conservation of marine biological resources (+ Article 44.1.c Inland fishing)</p> <p>Article 40.1.a Protection and restoration of marine biodiversity – collection of lost fishing gear and marine litter</p> <p>Article 41.1. a, b, c Energy efficiency and mitigation of climate change – on board investments; energy efficiency audits and schemes; studies to assess the contribution of alternative propulsion systems and hull designs (+ Article 44.1.d Inland fishing)</p> <p>Article 41.2 Energy efficiency and mitigation of climate change – Replacement or modernisation of main or ancillary engines (+ Article 44.1.d Inland fishing)</p> <p>Article 43.2 Fishing ports, landing sites, auction halls and shelters – investments to facilitate compliance with the obligation to land all catches</p>
Inputs from the beneficiary	<ul style="list-style-type: none"> • Annual fuel consumption BEFORE and AFTER the operation • Annual volume in live weight of landings BEFORE and AFTER the operation
Optional inputs from other sources	<p>Research and/or technical institutes or similar institutions in the MSs should be able to deliver:</p> <ul style="list-style-type: none"> • Coefficients for the change of energy efficiency through the use of engine or gear types as the ones accepted and financed through the OP operations in comparison to “conventional” engines or gear. <p>Should such national standards not be available, alternatives from other MSs or international institutions can be used.</p>
Inputs from the MA	<p>The MA should be able to:</p> <ul style="list-style-type: none"> • verify that the gear or engine financed through the OP operations is included in the list of types of engines or gear for which standard coefficients exist, and use the coefficient to calculate the change in energy efficiency; • assist the beneficiary in calculating the values to be reported; • verify the values to be reported by the beneficiary.
Reference period for the single operation	<p>The time before the operation and after completion, for which the most current annual values exist.</p> <p>If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.</p>
Calculation	<p style="text-align: center;">Change in fuel efficiency of fish capture = $(B / D) - (A / C)$</p> <p>Where:</p> <ul style="list-style-type: none"> • A = annual fuel consumption BEFORE the operation • B = annual fuel consumption AFTER the operation • C = annual volume of landed catch BEFORE the operation • D = annual volume of landed catch AFTER the operation

Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Beneficiary records of annual fuel consumption and annual volume in live weight before the operation for which the most current annual reports are available
Assumptions for target setting at OP level	<p>Fuel efficiency of fish capture = $\frac{\text{No. of operations} \times \text{average annual fuel consumption, tonnes} \times (1 - \text{energy efficiency increase coefficient})}{\text{average annual volume landed catch}}$</p> <p>If the MA can estimate the number of operations in addition to the fleet segment that will be involved in the operations, then the above targets can be further detailed by using weighted averages instead of simple averages.</p>
Comments	Many beneficiaries might not be able to provide any data on this indicator. For example, beneficiaries under Article 43.2 do not operate as fishers, hence no value of “litres of fuel/tonnes landed catch” can be reported at the beneficiary level. This indicator is actually a composite indicator stemming from the indicator “fuel consumption/time unit of operation” divided by the indicator “time unit of operation/tonnes landed catch”. “Time unit of operation” is thus a crucial variable for comparing and interpreting results on this indicator. This should be considered in the evaluation of the programmes.

3.1.6 Change in the % of unbalanced fleets

Indicator Code	RI_UP 1.6
Indicator Title	Change in the % of unbalanced fleets
Sub-indicators	None
Measurement Unit	%
Definition	<p>Change in % of unbalanced fleets is the ratio between the % of unbalanced fleets after the operations are finalised and the % of unbalanced fleets at the start of the programme. The % of unbalanced fleets is the number of unbalanced fleet segments divided by the number of all fleet segments.</p> <p>A fleet segment is regarded as unbalanced in accordance with the “Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Article 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy” (COM(2014) 545 final of 2.9.2014).</p>
Definition – further clarification	<ul style="list-style-type: none"> Commission Delegated Regulation (EU) No 1014/2014 states that the baseline of the indicator will be defined “according to starting values estimates in the EMFF OPs”. However in most OPs there are none. Therefore, the reference value could be taken from the MS’s report on the balance between the fishing capacity of its fleet and its fishing opportunities in the year before the implementation of the operation (according to Article 22 (2) of Regulation (EU) No 1380/2013). Should such a report not contain sufficient information to calculate the % of unbalanced fleets, the MS must do this assessment based on the relevant guideline (COM(2014) 545 final of 2.9.2014).
Specific Objectives	1(c) Ensuring a balance between fishing capacity and available fishing opportunities.

Measures in SFC	Article 34 Permanent cessation of fishing activities Article 36 Support to systems of allocation of fishing opportunities
Inputs from the beneficiary	Beneficiaries are usually not in a position to provide the data required to calculate this indicator
Optional inputs from other sources	Inputs from the “National reports on the balance between the fishing capacity of their fleets and their fishing opportunities” are required, possibly also from DCF and other sources
Inputs from the MA	<ul style="list-style-type: none"> The MA or other competent institutions of the MS should be able to: Calculate the value for the change in the % of unbalanced fleets based on the methodology for the “National reports on the balance between the fishing capacity of their fleets and their fishing opportunities”
Reference period for the single operation	The time before and after the operation for which the most current annual values exist (i.e. the most current volume of the “National reports on the balance between the fishing capacity of their fleets and their fishing opportunities” that MSs have to submit to COM every year (according to Article 22 (2) of Regulation (EU) No 1380/2013)
Calculation	$\text{Change in the \% of unbalanced fleets} = ((B / D) - (A / C)) / E$ <p>Where:</p> <ul style="list-style-type: none"> A = number of unbalanced fleet segments BEFORE the operation B = number of unbalanced fleet segments AFTER the operation C = number of all fleet segments BEFORE the operation D = number of all fleet segments AFTER the operation E = A / C <p>If some data for a certain fleet segment is missing, they can be replaced by estimates</p>
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Regulation 1014/2014 footnote 13 mentions “starting values estimates in the EMFF OPs”. The value could be the most current available point at the time the beneficiary submits the application.
Assumptions for target setting at OP level	All targets identified for change indicators need to express an improvement. Merely maintaining the status quo (i.e. target value “0”) is not acceptable.
Comments	The assessment as to whether a fleet segment is in or out of balance with fishing opportunities has to be made by the MS following the relevant guidance ⁴ based on: <ul style="list-style-type: none"> two biological indicators, two economic indicators, and two vessel-use indicators; of these, the biological indicators (sustainable harvest indicator and stocks-at-risk indicator) are context indicators of the EMFF, while the remaining indicators (and the % of balanced fleet) are not context indicators of the EMFF.

⁴ Guidelines for the analysis of the balance between fishing capacity and fishing opportunities according to Article 22 of Regulation (EU) No 1380/2013 of the European Parliament and the Council on the Common Fisheries Policy (COM(2014) 545 final of 2.9.2014)

3.1.7 Employment created in the fisheries sector or complementary activities

Indicator Code	RI_UPI.7
Indicator Title	Employment created (FTE) in the fisheries sector or complementary activities
Sub-indicators	None
Measurement Unit	FTE
Definition	Number of persons in some form of newly created and compensated employment in the fisheries or maritime sector (employed or self-employed for pay, profit or family gain) at the beneficiary level (fisher/enterprise). They are expressed in full-time equivalent (FTE) based on the national FTE coefficient.
Definition – further clarification	<ul style="list-style-type: none"> • Positions need to be filled, and must increase the total number of jobs in the enterprise. If total employment does not increase the value is zero. • Persons employed temporarily to work on the project realisation, e.g. on infrastructure, must not be recorded as jobs created. • Jobs are expected to be permanent or – in the case of seasonal jobs – recurring. Gross jobs are considered at the enterprise level. The origin of the jobholder is not examined as long as it directly contributes to the increase of total jobs in the enterprise. • The indicator does not take account of qualitative factors of employment, such as salary. • A self-employed person should be considered as 1 FTE when their working hours are not recorded. • For Article 29.1/29.3, also consider remunerated trainees as new jobs.
Specific Objectives	1(d) Enhancement of the competitiveness and viability of fisheries enterprises, including of small scale coastal fleets, and the improvement of safety or working conditions 1(f) Development of professional training, new professional skills and lifelong learning
Measures in SFC	Article 29.1 + 29.2 Promoting human capital and social dialogue – training, networking, social dialogue; support to spouses and life partners (+ Article 44.1.a Inland fishing) Article 29.3 Promoting human capital and social dialogue – trainees on board of SSCF vessels / social dialogue (+ Article 44.1.a Inland fishing) Article 30 Diversification and new forms of income (+ Article 44.4 Inland fishing) Article 31 Start-up support for young fishermen (+ Article 44.2 Inland fishing) Article 42 Added value, product quality and use of unwanted catches (+ Article 44.1.e Inland fishing) Article 43.1 + 3 Fishing ports, landing sites, auction halls and shelters – investments improving fishing port and auctions halls infrastructure or landing sites and shelters; construction of shelters to improve safety of fishermen (+ Article 44.1.f Inland fishing)
Inputs from the beneficiary	Number of new jobs (plausibly attributable to the EMFF support). Annual working time per new job.

Optional inputs from other sources	Labour organisations or similar institutions need to provide the national FTE coefficient
Inputs from the MA	The MA might need to: <ul style="list-style-type: none"> • assist the beneficiary in calculating the FTE • adjust the national FTE coefficient to reflect specificities and seasonality of the fisheries and maritime sector
Reference period for the single operation	The time directly before the operation and after completion, for which the most current annual values exist. If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years. Due to the nature of some of the Measures (e.g. Article 29) some time-lag can be expected before the jobs are created; two years should be sufficient in that case.
Calculation	$\text{Employment created (FTE)} = \text{Sum} (A_i \times B_i / C)$ <p>Where:</p> <ul style="list-style-type: none"> • A_i = Person newly employed AFTER the beginning of the operation. “Person newly employed” is a person in some form of compensated employment in the fisheries or maritime sector (employed or self-employed for pay, profit or family gain) that did not exist before the operation • B_i = “working time units per year” i.e. the number of e.g. hours or days per newly employed person actually worked • C = FTE coefficient, i.e. the national reference number for full-time employment, e.g. 1720 hours/year.
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Zero
Assumptions for target setting at OP level	Budget of measure(s) DIVIDED BY average EUR/new job created using the period 2007-2013 as national benchmark
Comments	The beneficiary should be able to record the number of persons employed (FTE) before the operation and distinguish additional new jobs (FTE) at project finalisation i.e. jobs related to individuals being newly employed by the enterprise

3.1.8 Employment maintained in the fisheries sector or complementary activities

Indicator Code	RI_UP1.8
Indicator Title	Employment maintained (FTE) in the fisheries sector or complementary activities
Sub-indicators	None
Measurement Unit	FTE
Definition	Number of persons in some form of already existing compensated employment in the fisheries or maritime sector (employed or self-employed for pay, profit or family gain) whose jobs were at risk and were likely to be lost without EMFF intervention at the beneficiary level (fisher/enterprise). They are expressed in full-time equivalent (FTE) based on the national FTE

	coefficient.
Definition – further clarification	<ul style="list-style-type: none"> • The indicator does not take account of qualitative factors of employment such as salary. • Jobs are expected to be permanent or – in the case of seasonal jobs – recurring. It is assumed that all jobs in the fisheries sector or complementary activities are at high risk. • A self-employed person should be considered as 1 FTE when their working hours are not recorded.
Specific Objectives	<p>1(d) Enhancement of the competitiveness and viability of fisheries enterprises, including of small scale coastal fleets, and the improvement of safety or working conditions</p> <p>1(f) Development of professional training, new professional skills and lifelong learning</p>
Measures in SFC	<p>Article 29.1 + 29.2 Promoting human capital and social dialogue – training, networking, social dialogue; support to spouses and life partners (+ Article 44.1.a Inland fishing)</p> <p>Article 29.3 Promoting human capital and social dialogue – trainees on board of SSCF vessels / social dialogue (+ Article 44.1.a Inland fishing)</p> <p>Article 30 Diversification and new forms of income (+ Article 44.4 Inland fishing)</p> <p>Article 31 Start-up support for young fishermen (+ Article 44.2 Inland fishing)</p> <p>Article 42 Added value, product quality and use of unwanted catches (+ Article 44.1.e Inland fishing)</p> <p>Article 43.1 + 3 Fishing ports, landing sites, auction halls and shelters – investments improving fishing port and auctions halls infrastructure or landing sites and shelters; construction of shelters to improve safety of fishermen (+ Article 44.1.f Inland fishing)</p>
Inputs from the beneficiary	Number of persons in some form of already existing compensated employment. Annual working time per person.
Optional inputs from other sources	Labour organisations or similar institutions need to provide the national FTE coefficient
Inputs from the MA	<p>The MA might need to:</p> <ul style="list-style-type: none"> • assist the beneficiary in calculating the FTE • adjust the national FTE coefficient to reflect specificities and seasonality of the fisheries and maritime sector
Reference period for the single operation	<p>The time directly before the operation and after completion, for which the most current annual values exist.</p> <p>If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years</p>
Calculation	<p style="text-align: center;">$\text{Employment maintained (FTE)} = \text{Sum } (A_i \times B_i / C)$</p> <p>Where:</p> <ul style="list-style-type: none"> • A_i = person in some form of already existing compensated employment beneficiary level (fisher/enterprise) in the fisheries or maritime sector; • B_i = “working time units per year” i.e. the number of e.g. hours or days actually worked per person above

	<ul style="list-style-type: none"> • C = FTE coefficient i.e. the national reference number for full-time employment, e.g. 1720 hours/year
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Zero
Assumptions for target setting at OP level	Budget of measure(s) divided by average EUR/new job maintained using the period 2007-2013 as national benchmark
Comments	–

3.1.9 Change in the work-related injuries and accidents

Indicator Code	RI_UP1.9
Indicator Title	Change in the work-related injuries and accidents
Sub-indicators	(a) Change in the number of work-related injuries and accidents at the beneficiary level (fisher/enterprise) (b) Change in the % of work-related injuries and accidents in relation to total fishers
Measurement Unit	(a) Number (integer) (b) %
Definition	(a) Change of absolute number of work-related injuries and accidents in fisheries per year An injury is a bodily lesion at organic level resulting from acute exposure to energy (be mechanical, thermal, electrical, chemical, or radiant) interacting with the body in amounts or rates that exceed the threshold of physiological tolerance. The definition of a “work-related injury” varies in different MSs but usually includes any injury that occurs when the person is at a place for the purpose of working, i.e. being on board a vessel. Fisher is “any person carrying out an occupation on board of a fishing vessel, including trainees and apprentices but excluding shore personnel carrying out work on board a vessel at the quayside and port pilots” (according to Council Directive 93/103/E – Article 2 (e)). (b) Change in the ratio between sub-indicator (a) and total number of fishers
Definition – further clarification	<ul style="list-style-type: none"> • “Change” in the sense of “reduction” is expressed as a negative value • No differentiation according to type, severity etc. of work-related injuries and accidents • Each case of work-related injury and accident corresponds to one fisher
Specific Objectives	1(d) Enhancement of the competitiveness and viability of fisheries enterprises, including of small scale coastal fleet, and the improvement of safety or working conditions 1(f) Development of professional training, new professional skills and lifelong learning
Measures in SFC	Article 32 Health and Safety Article 29 Promotion of human capital, job creation and social dialogue
Inputs from the beneficiary	For sub-indicator (a): number of work-related injuries and accidents BEFORE and AFTER the operation.

	For sub-indicator (b): no information.
Optional inputs from other sources	Institutions responsible for statistical information in the MSs should be able to deliver: <ul style="list-style-type: none"> • the total number of fishers for the year(s) concerned
Inputs from the MA	The MA should be able to: <ul style="list-style-type: none"> • calculate sub-indicator (b) for each operation
Reference period for the single operation	The time directly before the operation and after completion, for which the most current annual values exist. If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.
Calculation	<p>(a) Change in the number of work-related injuries and accidents = B – A Where:</p> <ul style="list-style-type: none"> • A = annual total number of work-related injuries and accidents per year BEFORE the operation • B = annual total number of work-related injuries and accidents per year AFTER the operation <p>(b) Change in the % of work-related injuries and accidents in relation to the number of total fishers = ((B/C) – (A/D)) / E Where:</p> <ul style="list-style-type: none"> • A = as above • B = as above • C = total number of fishers in the MS AFTER the operation for the year(s) concerned • D = total number of fishers in the MS BEFORE the operation for the year(s) concerned • E = B/D
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Total number of work-related injuries and accidents per year before the operation for which the most current annual reports are available
Assumptions for target setting at OP level	<p>(a) number of operations × average number of fishers per vessel in an operation × Context Indicator 1.9b</p> <p>(b): (a) divided by total number of fishers for the year(s) concerned</p> <p>All targets identified for change indicators need to express an improvement. Merely maintaining the status quo (i.e. target value “0”) is not acceptable.</p>
Comments	<p>Special attention should be given to beneficiaries reporting a baseline of zero accidents and injuries. In this case they cannot formally report any reduction in accidents and injuries even when they have invested in health and safety. In this case a programme-specific indicator could be defined that quantifies the intended effect.</p> <p>This indicator is not well suited to capture the effect of the measures, as the discussion on “zero improvement” shows. An alternative indicator might be</p>

	<p>proposed in the future.</p> <p>A usable alternative might be the “number of fishers concerned by the operation” which is reported in the context of Article 97.1 reporting (see CIR (EU) No 1242/2014, Annex V, I.8). The MA should plan to ensure that reliable numbers are available in this context.</p>
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3.1.10 Change in the coverage of marine protected areas relevant for UP 1

Indicator Code	RI_UP1.10
Indicator Title	Change in the coverage of marine protected areas (MPAs) relevant for UP 1
Sub-indicators	<p>(a) Change in the coverage of Natura 2000 areas designated under the Birds and Habitats directives (km²).</p> <p>(b) Change in the coverage of other spatial protection measures under Article 13.4 of Directive 2008/56/EC (km²).</p>
Measurement Unit	<p>(a) km²</p> <p>(b) km²</p>
Definition	<p>Change in the spatial extent of Marine Protected Areas (MPAs). MPAs are:</p> <p>(a) Marine or inland areas belonging to the Natura 2000 network of areas (Special Protection Areas (SPA) under the Birds Directive and Special Areas of Conservation (SAC) under the Habitats Directive) designated to conserve natural habitats and species of wildlife which are rare, endangered or vulnerable in the European Union.</p> <p>(b) Areas under a spatial protection measure in the sense of Article 13.4 of Directive 2008/56/EC. A spatial protection measure is any spatial restriction or management of human activities to protect biodiversity and support or terminate certain industrial or leisure activities which may have effects on biodiversity protection/conservation.</p>
Definition – further clarification	<ul style="list-style-type: none"> • For NATURA 2000, refer only to marine areas when Article 44.6. Inland fishing is not included in the OP. When Article 44.6 Inland fishing is included then NATURA 2000 inland areas should be also considered. • The MPA should be considered as a whole, i.e. the entire area should be included (as defined in the designated area decree) regardless of the specific extent of a measure. It is sufficient that an operation is located within the MPA’s designated area.
Specific Objectives	1 (b) Protection and restoration of aquatic biodiversity and ecosystems
Measures in SFC	Article 40.1.(b –g), (i) Protection and restoration of marine biodiversity – contribution to a better management or conservation, construction, installation or modernisation of static or movable facilities, preparation of protection and management plans related to NATURA 2000 sites and spatial protected areas, management, restoration and monitoring marine protected areas, including NATURA 2000 sites, environmental awareness, participation in other actions aimed at maintaining and enhancing biodiversity and ecosystem services (plus Article 44.6 Inland fishing)
Inputs from the beneficiary	Spatial extent of the MPAs concerned.

	Attention should be paid to the correct handling of the measurement unit (km ²) and the necessary transformation from other spatial units (hectare, acre or other).
Optional inputs from other sources	Agencies responsible for protected areas management can deliver the MPA designation degree, which should contain the spatial extent as a verification of the beneficiary data
Inputs from the MA	The MA should pay attention to the correct handling of the measurement unit (km ²) and the necessary transformation from other spatial units (hectare, acre or other) on data from the beneficiary or other sources
Reference period for the single operation	The time directly before the operation and up to 3 years after completion
Calculation	Change in the coverage of MPAs relevant for UP 1 = Area of marine protected areas (created due to an EMFF operation) at the operation finalisation
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Zero
Assumptions for target setting at OP level	<p>Number of operations × average MPA size</p> <p>All targets identified for change indicators need to express an improvement. Merely maintaining the status quo (i.e. target value “0”) is not acceptable.</p> <p>However many operations might have no effect on this indicator, since they typically improve an existing MPA rather than creating a new one. In this case a programme-specific indicator could be defined that quantifies the intended effect.</p>
Comments	<p>An alternative indicator might be proposed in the future.</p> <p>Change could be defined as: “change in coverage with improved management/conservation status” due to the EMFF intervention. Though this may be a physical extension, i.e. a new area, that does not need to be the case. Hence the “change in the coverage” of the Regulation can be interpreted in terms of a “change in coverage with improved management”. In such a case attention should be given to avoid double counting; i.e. one MPA should be counted only once, even if it is involved in more than one EMFF operation.</p> <p>A usable alternative might be the “total area concerned by Natura 2000/MPA” which is reported in the context of Article 97.1 reporting (see CIR (EU) No 1242/2014, Annex V, I.18). The MA should plan to ensure that reliable numbers are provided in this context.</p>

3.2 UP2 Fostering environmentally sustainable, resource efficient, innovative, competitive and knowledge based aquaculture

3.2.1 Change in the volume of aquaculture production

Indicator Code	RI_UP2.1
Indicator Title	Change in volume of aquaculture production (tonnes)
Sub-indicators	None
Measurement Unit	Tonnes
Definition	Change in the annual total volume of production, at the beneficiary level (producer/enterprise). “Volume” means: (a) for fish, crustaceans and molluscs and other aquatic animals, the live weight equivalent of the product. For molluscs, the live weight shall include the weight of the shell; (b) for aquatic plants, the wet weight of the product. (Source: Reg. 762/2008, Annex I)
Definition – further clarification	<ul style="list-style-type: none"> The indicator refers to volume intended for sale
Specific Objectives	2(a) Provision of support to strengthen technological development, innovation and knowledge transfer 2(b) Enhancement of the competitiveness and viability of aquaculture enterprises, including improvement of safety or working conditions, in particular of SMEs 2(d) Promotion of aquaculture having a high level of environmental protection, and the promotion of animal health and welfare and of public health and safety
Measures in SFC	Article 47 Innovation Article 49 Management, relief and advisory services for aquaculture farms Article 48.1.a-d, f-h Productive investments in aquaculture Article 52 Encouraging new sustainable aquaculture farmers practicing sustainable aquaculture Article 54 Aquaculture providing environmental services Article 55 Public health measures Article 56 Animal health and welfare measures Article 57 Aquaculture stock insurance
Inputs from the beneficiary	<ul style="list-style-type: none"> Total annual volume of production expressed in live weight equivalent/wet weight BEFORE the operation Total annual volume of production expressed in live weight equivalent/wet weight AFTER the operation
Optional inputs from other sources	Research and/or technical institutes, marketing organisations or similar institutions in the MSs might be able to deliver: <ul style="list-style-type: none"> conversion factors for those cases where beneficiaries record product weight as made available to the market and not live weight equivalent/wet weight; trends in the volume of production of operators in the MS (related to enterprise size and type).

Inputs from the MA	The MA should be able to: <ul style="list-style-type: none"> transform beneficiary input data expressed in product weight into live weight equivalent/wet weight based on standardised conversion factors (see above)
Reference period for the single operation	The time directly before the operation and after completion, for which the most current annual values exist. If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.
Calculation	Change in volume of aquaculture production (tonnes) = B – A Where: <ul style="list-style-type: none"> A = total annual volume of production expressed in live weight equivalent/wet weight BEFORE the operation B = total annual volume of production expressed in live weight equivalent/wet weight AFTER the operation
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Total annual volume of live weight equivalent/wet weight before the operation for which the most current annual reports are available
Assumptions for target setting at OP level	Number of operations × average change in the volume of aquaculture production of operators If the MA can estimate the number of operations in addition to the enterprise size and type that will be involved in the operations, then the above targets can be further detailed by using weighted averages instead of simple averages
Comments	Operations under some measures (e.g. Article 54) may increase the sustainability of production, but decrease the volume

3.2.2 Change in the value of aquaculture production

Indicator Code	RI_UP2.2
Indicator Title	Change in value of aquaculture production (thousand EUR)
Sub-indicators	None
Measurement Unit	Thousand EUR
Definition	Change in the total annual revenue generated from the sales of aquaculture products, at the beneficiary level (producer/enterprise)
Definition – further clarification	<ul style="list-style-type: none"> The indicator refers ONLY to revenue from the sales of aquaculture products produced at the beneficiary premises (including processed products from its own primary production). Any other sources of revenue (e.g. from reselling) should be excluded unless of minimal importance, e.g. contributing less than 10% of the revenue.
Specific Objectives	2(a) Provision of support to strengthen technological development, innovation and knowledge transfer 2(b) Enhancement of the competitiveness and viability of aquaculture enterprises, including improvement of safety or working conditions, in particular of SMEs 2(d) Promotion of aquaculture having a high level of environmental protection,

	and the promotion of animal health and welfare and of public health and safety
Measures in SFC	<p>Article 47 Innovation</p> <p>Article 48.1.a-d, f-h Productive investments in aquaculture</p> <p>Article 49 Management, relief and advisory services for aquaculture farms</p> <p>Article 52 Encouraging new sustainable aquaculture farmers practising sustainable aquaculture</p> <p>Article 54 Aquaculture providing environmental services</p> <p>Article 55 Public health measures</p> <p>Article 56 Animal health and welfare measures</p> <p>Article 57 Aquaculture stock insurance</p>
Inputs from the beneficiary	<ul style="list-style-type: none"> • total annual revenue from first sales of aquaculture products BEFORE the operation • total annual revenue from first sales of aquaculture products AFTER the operation
Optional inputs from other sources	<p>Research and/or technical institutes, marketing organisations or similar institutions in the MSs might be able to deliver:</p> <ul style="list-style-type: none"> • trends in the volume of production of operators in the MS (related to enterprise size and type)
Inputs from the MA	–
Reference period for the single operation	<p>The time directly before the operation and after completion, for which the most current annual values exist.</p> <p>If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.</p>
Calculation	<p>Change in the value of aquaculture production (thousand EUR) = B – A</p> <p>Where:</p> <ul style="list-style-type: none"> • A = total annual revenue from the sales of aquaculture products BEFORE the operation • B = total annual revenue from the sales of aquaculture products AFTER the operation
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Total annual revenue from first sales of aquaculture products, before the operation for which the most current annual reports are available
Assumptions for target setting at OP level	<p>Number of operations × average change in the value of aquaculture production of operators</p> <p>If the MA can estimate the number of operations in addition to the enterprise size and type that will be involved in the operations, then the above targets can be further detailed by using weighted averages instead of simple averages</p>
Comments	–

3.2.3 Change in net profits

Indicator Code	RI_UP2.3
Indicator Title	Change in net profit (thousand EUR)
Sub-indicators	None
Measurement Unit	Thousand EUR
Definition	The change in the difference between revenue and overall costs (variable and non-variable costs directly attributable to an aquaculture production activity) for a given accounting period at the beneficiary level (producer/enterprise). In the context of the EMFF result indicators, net profit should not be reduced by interests and taxes payable (and depreciation and amortisation if applicable to the rules of the beneficiary's bookkeeping), i.e. the net profit is EBITDA or EBIT (depending on the beneficiary's bookkeeping).
Definition – further clarification	<ul style="list-style-type: none"> • beneficiary declarations based on their profit and loss accounts or similar declarations should be used • for cases where no or a simplified book-keeping obligation exists, beneficiary estimations should be used • the indicator excludes interest, taxes, depreciation and opportunity costs for the sake of simplicity and reliability
Specific Objectives	2(a) Provision of support to strengthen technological development, innovation and knowledge transfer 2(b) Enhancement of the competitiveness and viability of aquaculture enterprises, including improvement of safety or working conditions, in particular of SMEs
Measures in SFC	Article 47 Innovation Article 48.1.a-d, f-h Productive investments in aquaculture Article 49 Management, relief and advisory services for aquaculture farms Article 52 Encouraging new sustainable aquaculture farmers practising sustainable aquaculture
Inputs from the beneficiary	<ul style="list-style-type: none"> • Annual EBIT (or EBITDA) BEFORE the operation • Annual EBIT (or EBITDA)AFTER the operation
Optional inputs from other sources	Research and/or technical institutes or similar institutions in the MSs might be able to deliver for the OP target setting: <ul style="list-style-type: none"> • trends in the EBIT (or EBITDA) of operators in the MS (related to enterprise size and type)
Inputs from the MA	–
Reference period for the single operation	The time directly before the operation and after completion, for which the most current annual values exist. If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.
Calculation	$\text{Change in net profits (thousand EUR)} = B - A$ <p>Where:</p> <ul style="list-style-type: none"> • A = annual EBIT (or EBITDA)BEFORE the operation • B = annual EBIT (or EBITDA)AFTER the operation
Baseline for the single	EBIT (or EBITDA)before the operation for which the most current annual

operation (Reg.480/2014, Annex III, field 37)	reports are available
Assumptions for target setting at OP level	<p>Number of operations × average change in the EBIT of operators</p> <p>If the MA can estimate the number of operations in addition to the enterprise size and type that will be involved in the operations, then the above targets can be further detailed by using weighted averages instead of simple averages</p>
Comments	–

3.2.4 Change in the volume of production organic aquaculture

Indicator Code	RI_UP2.4
Indicator Title	Change in the volume of production organic aquaculture (tonnes)
Sub-indicators	None
Measurement Unit	Tonnes
Definition	<p>Change in the annual volume (tonnes) of production of organic aquaculture enterprises (H&N) at the beneficiary level (producer/enterprise).</p> <p>“Volume” means:</p> <p>(a) for fish, crustaceans and molluscs and other aquatic animals, the live weight equivalent of the product. For molluscs, the live weight shall include the weight of the shell;</p> <p>(b) for aquatic plants, the wet weight of the product.</p> <p>(Source: Reg. 762/2008, Annex I)</p> <p>“Organic aquaculture” within the meaning of Council Regulation (EC) No 834/2007 and in accordance with Commission Regulation (EC) No 710/2009.</p>
Definition – further clarification	–
Specific Objectives	<p>2(c) Protection and restoration of aquatic biodiversity and enhancement of ecosystems related to aquaculture and promotion of resource-efficient aquaculture</p> <p>2(d) Promotion of aquaculture having a high level of environmental protection, and the promotion of animal health and welfare and of public health and safety</p>
Measures in SFC	<p>Article 53 Conversion to eco-management and audit schemes and organic aquaculture</p> <p>Article 48 Productive investments in aquaculture</p>
Inputs from the beneficiary	<ul style="list-style-type: none"> • annual total volume of organic aquaculture production BEFORE the operation • annual total volume of organic aquaculture production AFTER the operation
Optional inputs from other sources	Average volume of production of conventional and organic aquaculture units
Inputs from the MA	–
Reference period for the single operation	The time before the operation (most current annual values, e.g. average of the last 3 years) and up to 5 years after completion (most current annual values), depending on national legislation for organic production

Calculation	<p>Change in the volume of production organic aquaculture = B – A</p> <p>Where:</p> <ul style="list-style-type: none"> • A = sum of volume (tonnes) of production in live/wet weight of organic aquaculture for human consumption BEFORE the operation • B = sum of volume (tonnes) of production in live/wet weight of organic aquaculture for human consumption AFTER the operation
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	<p>Volume of production organic aquaculture before the operation for which the most current annual reports are available.</p> <p>For operations under Article 53 Conversion to eco-management and audit schemes and organic aquaculture the baseline should be zero.</p> <p>For operations under Article 48 Productive investments in aquaculture the baseline can be zero.</p>
Assumptions for target setting at OP level	<p>Number of operations × average volume of production organic aquaculture</p> <p>All targets identified for change indicators need to express an improvement. Merely maintaining the status quo (i.e. target value “0”) is not acceptable.</p>
Comments	<p>Beneficiaries have to comply with the requirements of organic production for a minimum of five years.</p> <p>For operations under Article 53 beneficiaries have to respect the conversion period. At the earliest, the conversion period shall start when the farmer has notified his or her activity to the competent authorities and subjected their holding to the control system in accordance with Council Regulation (EC) No 834/2007. Animals and animal products produced during the conversion period referred to in subparagraph (c) of Article 17 of Council Regulation (EC) No 834/2007 shall not be marketed with the indications referred to in Articles 23 and 24 used in the labelling and advertising of products.</p> <p>Therefore organic production can only be included into the EMFF database (and hence affect the result indicator) after the conversion is finalised.</p>

3.2.5 Change in the volume of the production of recirculation systems

Indicator Code	RI_UP2.5
Indicator Title	Change in the volume of the production of recirculation systems (in tonnes)
Sub-indicators	None
Measurement Unit	Tonnes
Definition	<p>Production (in tonnes) of aquaculture enterprises using recirculation systems at the beneficiary level (producer/enterprise), where the beneficiary produces exclusively using recirculation systems, OR at the system/unit level if mixed. The definition of “recirculation systems” is given in the Eurostat Regulation (Regulation (EC) No 762/2008 of the European Parliament and of the Council of 9 July 2008 on the submission by MSs of statistics on aquaculture and repealing Council Regulation (EC) No 788/96).</p> <p>“Volume” means:</p> <p>(a) for fish, crustaceans and molluscs and other aquatic animals, the live weight</p>

	equivalent of the product. For molluscs, the live weight shall include the weight of the shell; (b) for aquatic plants, the wet weight of the product. (Source: Reg. 762/2008, Annex I)
Definition – further clarification	All types of recirculation system are included under this definition, i.e. also open or closed systems
Specific Objectives	2(c) Protection and restoration of aquatic biodiversity and enhancement of ecosystems related to aquaculture and promotion of resource-efficient aquaculture 2(d) Promotion of aquaculture having a high level of environmental protection, and the promotion of animal health and welfare and of public health and safety
Measures in SFC	Article 48 Productive investments in aquaculture
Inputs from the beneficiary	<ul style="list-style-type: none"> • annual total volume of production using recirculation systems BEFORE the operation • annual total volume of production using recirculation systems AFTER the operation
Optional inputs from other sources	Average volume of production of conventional and organic aquaculture units
Inputs from the MA	–
Reference period for the single operation	The time before the operation (most current annual values) and up to 3 years after implementation or depending on national legislation if longer (most current annual value)
Calculation	<p>Change in the volume of the production recirculation systems = B – A</p> <p>Where:</p> <ul style="list-style-type: none"> • A = sum of aquaculture production in live/wet weight (tonnes) in recirculation systems for human consumption) BEFORE the operation • B = sum of aquaculture production in live/wet weight (tonnes) in recirculation systems for human consumption) AFTER the operation
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	For a new system the baseline is zero. For an investment in an installed recirculation system the baseline is the annual total volume of production using recirculation systems before the operation for which the most current annual reports are available.
Assumptions for target setting at OP level	<p>Number of operations × estimated average production capacity</p> <p>If the MA can estimate the number of operations in addition to the enterprise size and type that will be involved in the operations, then the above targets can be further detailed by using weighted averages instead of simple averages</p>
Comments	–

3.2.6 Change in the volume of aquaculture production certified under voluntary sustainability schemes

Indicator Code	RI_UP2.6
Indicator Title	Change in the volume of aquaculture production certified under voluntary sustainability schemes (tonnes)

Sub-indicators	None
Measurement Unit	Tonnes
Definition	<p>Change in production of farms which received support under Article 53 or Article 48 of the EMFF and are certified under voluntary sustainability schemes at the beneficiary level (producer/enterprise).</p> <p>“Volume” means:</p> <p>(a) for fish, crustaceans and molluscs and other aquatic animals, the live weight equivalent of the product. For molluscs, the live weight shall include the weight of the shell;</p> <p>(b) for aquatic plants, the wet weight of the product.</p> <p>(Source: Reg. 762/2008, Annex I)</p>
Definition – further clarification	<ul style="list-style-type: none"> all types of voluntary sustainability schemes are included under this definition, as long as the MAs regard them as sound and valid (e.g. not only a publicity measure)
Specific Objectives	<p>2(c) Protection and restoration of aquatic biodiversity and enhancement of ecosystems related to aquaculture and promotion of resource-efficient aquaculture</p> <p>2(d) Promotion of aquaculture having a high level of environmental protection, and the promotion of animal health and welfare and of public health and safety</p>
Measures in SFC	<p>Article 48 Productive investments in aquaculture</p> <p>Article 53 Conversion to eco-management and audit schemes and organic aquaculture</p>
Inputs from the beneficiary	<ul style="list-style-type: none"> total annual volume of production under voluntary sustainability schemes BEFORE the operation total annual volume of production under voluntary sustainability schemes AFTER the operation
Optional inputs from other sources	<p>Technical institutes or similar institutions in the MSs might be able to deliver:</p> <ul style="list-style-type: none"> certificates of compliance to the voluntary sustainability schemes <p>Research and/or technical institutes or similar institutions in the MSs might be able to deliver for the OP target setting:</p> <ul style="list-style-type: none"> coverage volume of production of aquaculture units
Inputs from the MA	–
Reference period for the single operation	The time before the operation (most current annual value) and up to 5 years after completion (most current annual value)
Calculation	<p>Change in the volume of aquaculture production certified under voluntary sustainability schemes = B – A</p> <p>Where:</p> <ul style="list-style-type: none"> A = total annual volume of production under voluntary sustainability schemes BEFORE the operation; A = 0 if the beneficiary is introducing a voluntary sustainability scheme for the first time B = total annual volume of production under voluntary sustainability schemes AFTER the operation
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	<ul style="list-style-type: none"> zero if the beneficiary is introducing a voluntary sustainability scheme for the first time total annual volume of production under voluntary sustainability

	schemes BEFORE the operation if beneficiary is renewing or expanding a voluntary sustainability scheme
Assumptions for target setting at OP level	Number of operations × estimated average annual production of aquaculture units
Comments	–

3.2.7 Aquaculture farms providing environmental services

Indicator Code	RI_UP2.7
Indicator Title	Aquaculture farms providing environmental services (number of farms)
Sub-indicators	None
Measurement Unit	Number (integer)
Definition	Farms which received support under Article 54 of EMFF. Environmental services refer to qualitative and quantitative functions of natural assets (land, water, air and the related ecosystems and their biota) related to disposal potential, production, recreation and other related needs of human beings.
Definition – further clarification	–
Specific Objectives	2(d) Promotion of aquaculture having a high level of environmental protection, and the promotion of animal health and welfare and of public health and safety
Measures in SFC	Article 54 Aquaculture providing environmental services
Data Source	Beneficiary/MA
Inputs from the beneficiary	–
Optional inputs from other sources	–
Inputs from the MA	Number of supported aquaculture farms providing environmental services to be defined by the MA. Note that the Output Indicator related to the Article 54 is “Number of projects limiting the impact of aquaculture on the environment (eco-management, audit schemes, organic aquaculture, environmental services)”. The value of the result indicator can therefore be lower than or equal to the value of the output indicator.
Reference period for the single operation	Number of supported farms is to be registered every year by the MA for Article 54.1 (a) and (b). For operations under Article 54.1(c) up to 5 years after the operation.
Calculation	Aquaculture farms providing environmental services (number of farms) = A = NUMBER Where: A = number of farms involved in operation; this is assumed to be 1
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Zero
Assumptions for target setting at OP level	Budget of measure DIVIDED BY assumed average total cost of an operation
Comments	This result indicator is close to an output indicator. MSs are encouraged to consider more adequate result indicators for their evaluation exercises (i.e. what

	constitutes an environmental service and how is it measured?). The value of the indicator at measure level is SUM (farms which receive support under Article 54 of EMFF).
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3.2.8 Employment created

Indicator Code	RI_UP2.8
Indicator Title	Employment created (FTE)
Sub-indicators	None
Measurement Unit	FTE
Definition	Number of persons in some form of newly created and compensated employment in the aquaculture sector (employed or self-employed for pay, profit or family gain) at the beneficiary level (producer/enterprise). They are expressed in full-time equivalent (FTE) based on the national FTE coefficient.
Definition – further clarification	<ul style="list-style-type: none"> • Positions need to be filled and to increase the total number of jobs in the enterprise. If total employment does not increase, the value is zero. • Persons employed temporarily to work on the project realisation, e.g. on infrastructure, must not be recorded as job creation. • Jobs are expected to be permanent or – in the case of seasonal jobs – recurring. Gross jobs are considered at the enterprise level. The origin of the jobholder is not examined as long as it directly contributes to the increase of total jobs in the enterprise. • The indicator does not take account of qualitative factors of employment such as salary. • A self-employed person should be considered as 1 FTE when their working hours are not recorded.
Specific Objectives	2(b) Enhancement of the competitiveness and viability of aquaculture enterprises, including improvement of safety or working conditions, in particular of SMEs 2(e) Development of professional training, new professional skills and lifelong learning
Measures in SFC	Article 48.1.a-d, f-h Productive investments in aquaculture Article 52 Encouraging new sustainable aquaculture farmers practicing sustainable aquaculture. Article 50 Promoting human capital and networking.
Inputs from the beneficiary	Number of new jobs (plausibly attributable to the EMFF support). Annual working time per new job.
Optional inputs from other sources	Labour organisations or similar institutions need to provide the national FTE coefficient
Inputs from the MA	<ul style="list-style-type: none"> • the MA might need to assist the beneficiary in calculating the FTE
Reference period for the single operation	The time directly before the operation and after completion, for which the most current annual values exist. If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years

	Due to the nature of some of the Measures (e.g. Article 29) some time-lag can be expected before the jobs are created; two years should be sufficient in that case.
Calculation	<p style="text-align: center;">Employment created (FTE) = $\text{Sum}(A_i \times B_i / C)$</p> <p>Where:</p> <ul style="list-style-type: none"> • A_i = person newly employed AFTER the beginning of the operation. “Person newly employed” is a person in some form of compensated employment in the aquaculture sector (employed or self-employed for pay, profit or family gain), that did not exist before the operation; • B_i = “working time units per year” i.e. the number of e.g. hours or days per newly employed person actually worked; • C = FTE coefficient i.e. the national reference number for full-time employment, e.g. 1720 hours/year.
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Zero
Assumptions for target setting at OP level	Budget of measure(s) DIVIDED BY average EUR/new job created using the period 2007-2013 as national benchmark
Comments	The beneficiary should be able to record the number of persons employed (FTE) before the operation. At project finalisation the beneficiary should be able to record additional new jobs (FTE), i.e. jobs related to individuals newly employed by the enterprise.

3.2.9 Employment maintained

Indicator Code	RI_UP2.9
Indicator Title	Employment maintained (FTE)
Sub-indicators	None
Measurement Unit	FTE
Definition	<p>Number of persons in some form of already existing compensated employment in the aquaculture sector, employed or self-employed for pay, profit or family gain) whose jobs were at risk and were likely to be lost without EMFF intervention at the beneficiary level (producer/enterprise).</p> <p>They are expressed in full-time equivalent (FTE) based on the national FTE coefficient.</p>
Definition – further clarification	<ul style="list-style-type: none"> • The indicator does not take account of qualitative factors of employment such as salary. • Jobs are expected to be permanent or – in the case of seasonal jobs – recurring. A self-employed person should be considered as 1 FTE when their working hours are not recorded.
Specific Objectives	<p>2(b) Enhancement of the competitiveness and viability of aquaculture enterprises, including improvement of safety or working conditions, in particular of SMEs</p> <p>2(e) Development of professional training, new professional skills and lifelong learning</p>

Measures in SFC	Article 48.1.a-d, f-h Productive investments in aquaculture Article 52 Encouraging new sustainable aquaculture farmers practising sustainable aquaculture. Article 50 Promoting human capital and networking.
Inputs from the beneficiary	Number of persons in some form of already existing compensated employment, whose job maintenance is plausibly attributable to the EMFF support. Annual working time per person whose job maintenance is plausibly attributable to the EMFF support.
Optional inputs from other sources	Labour organisations or similar institutions need to provide the national FTE coefficient
Inputs from the MA	<ul style="list-style-type: none"> the MA might need to assist the beneficiary in calculating the FTE
Reference period for the single operation	The time directly before the operation and after completion, for which the most current annual values exist. If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.
Calculation	$\text{Employment maintained (FTE)} = \text{Sum} (A_i \times B_i / C)$ <p>Where:</p> <ul style="list-style-type: none"> A_i = person in some form of already existing compensated employment in the aquaculture sector at risk and likely to be lost without EMFF intervention B_i = “working time units per year” i.e. the number of e.g. hours or days actually worked per person above C = FTE coefficient i.e. the national reference number for full-time employment, e.g. 1720 hours/year
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Zero
Assumptions for target setting at OP level	Budget of measure(s) DIVIDED BY average EUR/new job created using the period 2007-2013 as national benchmark
Comments	The beneficiary should be able to calculate the balance of employment before and after employment excluding new jobs created

3.3 UP3 Fostering the implementation of the CFP

3.3.1 Amount of serious infringements detected

Indicator Code	RI_UP3.A1
Indicator Title	Amount of serious infringements detected
Sub-indicators	None
Measurement Unit	Number
Definition	The number of serious infringements detected and recorded in the national database required under Article 78 of the Control Regulation (1224/2009). The indicator is about serious infringements <i>detected</i> , regardless of the final ruling.
Definition – further clarification	<ul style="list-style-type: none"> • The MA has to request this information from the Control Agency, which retrieves the annual totals from the national register of infringements. The national register is the main source of this indicator and is required to store the data “only for as long as necessary for the purpose of this Regulation, but always for a minimum of 3 calendar years, starting from the year following that in which the information is recorded” (Article 93.4). Hence the annual totals must be stored separately by the Control Agency or the MA. • It is recommended that in the context of this EMFF result indicator to consider ONLY detections and NOT rulings, as the former are closer to the nature of the EMFF measures (i.e. increasing capacity of the control and enforcement authorities) and also compliant with the indicator wording; rulings might also be subject to considerable time lags. Serious infringements become relevant to the EMFF monitoring when included in the official report of the national register of infringements by the authority in charge. • For this indicator it is not possible to isolate the effect of a single operation on the number of serious infringements; any change to the number must rather be attributed to the total number of operations. Thus, for the sake of simplicity and transparency we propose that single operations do not report any value. The value of the indicator will be entered, e.g. for the AIR, by the MA.
Specific Objectives	3(b) Provision of support for monitoring, control and enforcement, enhancing institutional capacity and the efficiency of public administration, without increasing the administrative burden
Measures in SFC	Article 76 Control and enforcement
Inputs from the beneficiary	Same as “Optional inputs from other sources” (beneficiary is the Control Agency)
Optional inputs from other sources	National register of infringements (Control Agency), required by the Control Regulation to retrieve annual totals of serious infringements officially listed in the national register of infringements
Inputs from the MA	–
Reference period for the single operation	N/A
Calculation	<ul style="list-style-type: none"> • Number serious infringements detected = A

	<p>Where:</p> <ul style="list-style-type: none"> • A = total annual number of serious infringements detected as recorded by the national register of infringements, required by the Control Regulation (Reg. 1224/2009, Article 93)
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	N/A
Assumptions for target setting at OP level	<p>Target setting at OP level can be based on policy targets, trends or other context considerations at the end of the OP implementation period (2023).</p> <p>Note: the OP target is not the sum of each annual change. It is the annual value at the end of the OP implementation period (2023).</p>
Comments	Not relevant for Article 97 reporting, i.e. Reg.1243/2014, Annex I, fields 23 and 24 remain void for the single operation

3.3.2 Landings that are subject to physical control

Indicator Code	RI_UP3.A2
Indicator Title	Landings that have been subject to physical control (%)
Sub-indicators	None
Measurement Unit	%
Definition	Annual volume of landings controlled by the fisheries inspectors divided by the total volume of landings per year (measured in tonnes live weight)
Definition – further clarification	<ul style="list-style-type: none"> • Council Regulation (EC) No 1224/2009 (the “Control Regulation”). Article 4 defines that: “landing” means the initial unloading of any quantity of fisheries products from on board a fishing vessel to land. • Commission Implementing Regulation (EU) No 404/2011 (laying down detailed rules for the implementation of Council Regulation (EC) No 1224/2009) contains annex XXVII which specifies the information which should be included in the inspection report (Module 3); this includes the live weight equivalent of the catch to be landed. • For this indicator it is not possible to isolate the effect of a single operation on the volume of landings that have been subject to physical control; any change to the indicator must rather be attributed to the total number of operations. Thus for the sake of simplicity and transparency we propose that single operations do not report any value. The value of the indicator has to be provided by the Control Agency.
Specific Objectives	3(b) Provision of support for monitoring, control and enforcement, enhancing institutional capacity and the efficiency of public administration, without increasing the administrative burden
Measures in SFC	Article 76 Control and enforcement
Inputs from the beneficiary	Same as “Optional inputs from other sources” (beneficiary is the Control Agency)
Optional inputs from other	National database, required by the “Control Regulation” (Reg. 1224/2009,

sources	Article 78) to retrieve annual totals from the national database and inspection reports
Inputs from the MA	Request for annual totals from the national database and inspection reports. Computation of the indicator as discussed below.
Reference period for the single operation	N/A
Calculation	<p style="text-align: center;">Landings that have been subject to physical control (%) = B / A</p> <p>Where:</p> <ul style="list-style-type: none"> • B = total annual volume of landings that have been subject to physical control as recorded in the national database, required by the “Control Regulation” (Reg. 1224/2009, Article 78) • A = total volume of landings, recorded in the control database (on the basis of logbooks and/or sales notes)
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	N/A
Assumptions for target setting at OP level	Target setting at OP level can be based on policy targets, trends or other context considerations at the end of the OP implementation period (2023)
Comments	Not relevant for Article 97 reporting, i.e. Reg.1243/2014, Annex I, fields 23 and 24 remain void for the single operation

3.3.3 Data collection measures: fulfilment of data calls under DCF

Indicator Code	RI_UP3.B1 (applicable to coastal Member States)
Indicator Title	Increase in the percentage of fulfilment of data calls (%)
Sub-indicators	None
Measurement Unit	%
Definition	Change over the previous year, in the number of “data transmission issues” marked as “satisfactory” (column “STECF Assessment”) in the Annual STECF Report on “Evaluation of DCF AR and transmission issues/ Annex 2 – Data Transmission Results” relative to the total number of data transmission issues in the same Annex
Definition – further clarification	<ul style="list-style-type: none"> • Only data transmission issues marked “satisfactory” are considered; “unknown” is considered to be different from “satisfactory”, even though is not “unsatisfactory”. • Other evaluation aspects such as “Issue Type” or “Severity” are not considered. • For this indicator it is not possible to isolate the effect of a single operation on the % of fulfilment of data calls; any change to the number must rather be attributed to the total number of operations. Thus for the sake of simplicity and transparency we propose that single operations do not report any value. The value of the indicator will be entered, e.g. for the AIR, by the MA.
Specific Objectives	3(a) Improvement and supply of scientific knowledge and collection and management of data

Measures in SFC	Article 77 Data collection
Inputs from the beneficiary	–
Optional inputs from other sources	Annual STECF Report on “Evaluation of DCF AR and transmission issues/ Annex 2 – Data Transmission Results”
Inputs from the MA	Computation of the indicator as discussed below
Reference period for the single operation	N/A
Calculation	<p>Increase in the % of fulfilment of data calls (%) = $(D / C) / (B / (A - 1))$</p> <p>Where:</p> <ul style="list-style-type: none"> • A = total annual number of data transmission issues in the year BEFORE the operation • B = total annual number of data transmission issues NOT marked as “satisfactory” in the year BEFORE the operation • C = total annual number of data transmission issues in the year AFTER the operation • D = total annual number of data transmission issues NOT marked as “satisfactory” in the year AFTER the operation
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	N/A
Assumptions for target setting at OP level	Target setting at OP level can be based on policy targets, trends or other context considerations at the end of the OP implementation period (2023)
Comments	<p>Not relevant for Article 97 reporting, i.e. Reg.1243/2014, Annex I, fields 23 and 24 remain void for the single operation.</p> <p>The indicator is not suited to comparisons among MSs, since not all MSs are subject to the same number and type of data calls.</p> <p>It is also only conditionally suitable to track change over years for the same MS, since both data calls and reported data transmission issue vary. However, it provides a good approximation of the capacity of the MS to respond satisfactorily to the requirements of data calls, and should be interpreted accordingly. That should be considered in the evaluation of the programmes.</p> <p>Note: this indicator definition applies only to coastal MSs.</p>

Indicator Code	RI_UP3.B1 (applicable to land-locked Member States)
Indicator Title	Increase in the percentage of fulfilment of data calls (%)
Sub-indicators	None
Measurement Unit	%
Definition	Completed pilot studies divided by the total number of pilot studies foreseen in the national work plans on data collection
Definition – further clarification	<p>This definition applies only to the land-locked MSs. Pilot studies in those countries are interpreted as equivalent to “data calls” in coastal MSs.</p> <p>This common result indicator (CRI) is based on the Commission Implementing Decision (EU) 2016/1701 laying down rules on the format for the submission of work plans for data collection in the fisheries and aquaculture sectors. The</p>

	<p>Decision specifies which pilot studies may have to be carried out by the MS. This concerns four pilot studies of which two (nos. 3 and 4) are relevant to land-locked Member States:</p> <ol style="list-style-type: none"> 1. Relative share of catches of recreational fisheries compared to commercial fisheries. 2. Level of fishing and impact of fisheries on biological resources and marine ecosystem. 3. Data on employment by education level and nationality. 4. Environmental data on aquaculture. <p>Land-locked MSs have foreseen 0-4 pilot studies in their work plans for data collection. Land-locked MSs may have foreseen two pilot studies (nos. 3 and 4), unless they also investigate recreational and professional fisheries in fresh water (no. 1).</p> <p>Example: Reporting for AIR 2019 refers to operations with a cut-off date of 31.12.2018. If an MS planned to implement two pilot studies, of which only one was completed by the cut-off date, it will report 50%. If both pilot studies are completed the MS will report 100%.</p>
Specific Objectives	3(a) Improvement and supply of scientific knowledge and collection and management of data
Measures in SFC	Article 77 Data collection
Inputs from the beneficiary	Beneficiary informs the MA about the general status of the pilot study and whether it has been completed or not
Optional inputs from other sources	N/A
Inputs from the MA	MA may check the completion of the pilot study on the basis of the planned completion date stated in the national work plan for data collection
Reference period for the single operation	The reference period is the end of the year related to the Annual Implementation Report
Calculation	A / B
	<p>Where:</p> <ul style="list-style-type: none"> • A = number of completed pilot studies up to the year of completion of the operation • B = total number of pilot studies in the national work plan for data collection up to the year of completion of the operation
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Zero
Assumptions for target setting at OP level	N/A
Comments	This CRI definition can be used by all land-locked MSs which have included pilot studies in their national work plans for data collection

3.4 UP4 Increasing employment and territorial cohesion

3.4.1 Employment created

Indicator Code	RI_UP4.1
Indicator Title	Employment created (FTE)
Sub-indicators	None
Measurement Unit	FTE
Definition	<p>Number of persons in some form of newly created, dependent and compensated employment in the FLAG area created as part of the EMFF intervention (employed or self-employed for pay, profit or family gain).</p> <p>The new jobs do not need to be directly related to the fisheries or maritime sectors but may also be in other sectors relevant to the FLAG area and the respective Local Development Strategy (LDS).</p> <p>They are expressed in full-time equivalent (FTE) based on the national FTE coefficient.</p>
Definition – further clarification	<ul style="list-style-type: none"> • Positions need to be filled and to increase the total number of jobs in the enterprise. If total employment does not increase the value is zero. • Persons employed temporarily to work on the project realisation, e.g. on infrastructures or office operations, must not be recorded as job creation. • Jobs are expected to be permanent or – in the case of seasonal jobs – recurring. Gross jobs are considered at the enterprise level. The origin of the jobholder is not examined as long as it directly contributes to the increase of total jobs in the enterprise. • The indicator does not take account of qualitative factors of employment such as salary. • A self-employed person should be considered as 1 FTE when their working hours are not recorded. • Jobs might be created also from enterprises based outside the FLAG area as long as these jobs are located in the FLAG area and are relevant to the LDS.
Specific Objectives	Promotion of economic growth, social inclusion and job creation, and providing support to employability and labour mobility in coastal and inland communities which depend on fishing and aquaculture, including the diversification of activities within fisheries and into other sectors of maritime economy
Measures in SFC	<p>Article 62.1.a Preparatory support</p> <p>Article 63 Implementation of local development strategies (incl. running costs and animation)</p> <p>Article 64 Cooperation activities</p>
Inputs from the beneficiary	<p>Number of new jobs (plausibly attributable to the EMFF support)</p> <p>Annual working time per new job</p>
Optional inputs from other sources	Labour organisations or similar institutions need to provide the national FTE coefficient
Inputs from the MA	<p>The MA or the FLAG might need to assist the beneficiary in:</p> <ul style="list-style-type: none"> • calculating the FTE • reporting the values

Reference period for the single operation	The time directly before the operation and after completion, for which the most current annual values exist. If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years
Calculation	$\text{Employment created (FTE)} = \text{Sum} (A_i \times B_i / C)$ <p>Where:</p> <ul style="list-style-type: none"> • A_i = Person newly employed AFTER the beginning of the operation. “Person newly employed” is a person in some form of new dependent and compensated employment that did not exist in the FLAG area before the operation. • B_i = “working time units per year”, i.e. the number of e.g. hours or days per newly employed person actually worked. • C = FTE coefficient, i.e. the national reference number for full-time employment, e.g. 1720 hours/year.
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Zero
Assumptions for target setting at OP level	Budget of measure(s) DIVIDED BY average EUR/new job created using the period 2007-2013 as national benchmark, plus LEADER evaluations ⁵
Comments	This indicator is formally connected to all Measures under UP4. However the indicator most probably will be relevant to Article 63 only. Even in that case, many operations might not have employment effects. Due to the large number of operations expected MA/FLAG should ensure that the non-reporting of values is deliberate. Persons employed temporarily to work on the project realisation, e.g. on infrastructure, must not be recorded as job creation.

3.4.2 Employment maintained

Indicator Code	RI_UP4.2
Indicator Title	Employment maintained (FTE)
Sub-indicators	None
Measurement Unit	FTE
Definition	<p>Number of persons in some form of already existing dependent and compensated employment in the FLAG area (employed or self-employed for pay, profit or family gain) whose jobs were at risk and were likely to be lost without EMFF intervention.</p> <p>The maintained jobs do not need to be directly related to the fisheries or maritime sectors but may also be in other sectors relevant to the FLAG area and the respective Local Development Strategy (LDS).</p> <p>They are expressed in full-time equivalent (FTE) based on the national FTE coefficient.</p>
Definition – further	<ul style="list-style-type: none"> • The indicator does not take account of qualitative factors of employment

⁵ LEADER I: http://ec.europa.eu/agriculture/rur/leader1/index_en.htm
 LEADER II: http://ec.europa.eu/agriculture/eval/reports/leader2/index_en.htm
 LEADER +: http://ec.europa.eu/agriculture/eval/reports/leaderplus-expost/fulltext_en.pdf

clarification	<p>such as salary.</p> <ul style="list-style-type: none"> Jobs are expected to be permanent or – in the case of seasonal jobs – recurring. A self-employed person should be considered as 1 FTE when their working hours are not recorded. The LDS and the involvement of a local partner (e.g. an enterprise) in an operation (i.e. a local project) are the decisive elements for including a sector in calculating the indicator. Jobs might also be maintained from enterprises based outside the FLAG area as long as these jobs are located in the FLAG area and are relevant to the LDS.
Specific Objectives	Promotion of economic growth, social inclusion and job creation, and providing support to employability and labour mobility in coastal and inland communities which depend on fishing and aquaculture, including the diversification of activities within fisheries and into other sectors of maritime economy
Measures in SFC	<p>Article 62.1.a Preparatory support</p> <p>Article 63 Implementation of local development strategies (incl. running costs and animation)</p> <p>Article 64 Cooperation activities</p>
Inputs from the beneficiary	<p>Number of persons in some form of already existing compensated employment, whose job maintenance is plausibly attributable to the EMFF support.</p> <p>Annual working time per person whose job maintenance is plausibly attributable to the EMFF support.</p>
Optional inputs from other sources	Labour organisations or similar institutions need to provide the national FTE coefficient
Inputs from the MA	<p>The MA or the FLAG might need to assist the beneficiary in:</p> <ul style="list-style-type: none"> calculating the FTE; in reporting the values.
Reference period for the single operation	<p>The time directly before the operation and after completion, for which the most current annual values exist.</p> <p>If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.</p>
Calculation	<p style="text-align: center;">$\text{Employment maintained (FTE)} = \text{Sum} (A_i \times B_i / C)$</p> <p>Where:</p> <ul style="list-style-type: none"> A_i = person in some form of already existing compensated employment in the FLAG area at risk and likely to be lost without EMFF intervention B_i = “working time units per year”, i.e. the number of e.g. hours or days actually worked per person above C = FTE coefficient, i.e. the national reference number for full-time employment, e.g. 1720 hours/year
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Zero
Assumptions for target setting at OP level	Budget of measure(s) DIVIDED BY average EUR/new job maintained using the period 2007-2013 as national benchmark
Comments	This indicator is formally connected to all Measures under UP4. However the

	<p>indicator most probably will be relevant to Article 63 only.</p> <p>Even in that case, many operations might not have employment effects. Due to the large number of operations expected MA/FLAG should ensure that the non-reporting of values is deliberate.</p>
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3.4.3 Businesses created, UP4

Indicator Code	RI_UP4.3
Indicator Title	Business created (Number)
Sub-indicators	None
Measurement Unit	Number (integer)
Definition	<p>“Business” refers to any kind of organised and registered activity where goods and services are exchanged for money or swapped. “Businesses created” refers to all types of new businesses in the FLAG area, relevant to the Local Development Strategy (LDS), where creation can plausibly be attributed to an EMFF intervention. They do not need to be directly related to the fisheries or maritime sectors.</p>
Definition – further clarification	<ul style="list-style-type: none"> • The indicator does not take account of qualitative factors such as duration or turnover. The LDS and the involvement of a local partner (e.g. an enterprise) in an operation (i.e. a local project) are the decisive elements for including a sector in the calculation of the indicator. • Subsidiaries and branches from enterprises based outside the FLAG area are also counted as long as these businesses are somehow registered in the FLAG area and are relevant to the LDS.
Specific Objectives	Promotion of economic growth, social inclusion and job creation, and providing support to employability and labour mobility in coastal and inland communities which depend on fishing and aquaculture, including the diversification of activities within fisheries and into other sectors of maritime economy
Measures in SFC	<p>Article 62.1.a Preparatory support</p> <p>Article 63 Implementation of local development strategies (including running costs and animation)</p> <p>Article 64 Cooperation activities</p>
Inputs from the beneficiary	<p>Number of businesses created that are plausibly attributable to EMFF support. It is assumed that the business owner and the beneficiary are the same. The beneficiary can also be a different entity from the business founder, in which case the beneficiary reports on all businesses created.</p>
Optional inputs from other sources	–
Inputs from the MA	<p>The MA or the FLAG might need to assist the beneficiary in:</p> <ul style="list-style-type: none"> • calculating the FTE • reporting the values
Reference period for the single operation	<p>The time directly before the operation and after completion, for which the most current annual values exist.</p> <p>If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.</p>

Calculation	Businesses created = A = NUMBER Where: A = number of businesses created
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Zero
Assumptions for target setting at OP level	Budget of measure(s) DIVIDED BY average EUR/new businesses created using the period 2007-2013 as national benchmark
Comments	This indicator is formally connected to all Measures under UP4. However the indicator most probably will be relevant to Article 63 only. Even in that case, many operations might not have business creation effects. Due to the large number of operations expected MA/FLAG should ensure that the non-reporting of values is deliberate.

3.5 UP5 Fostering marketing and processing

Indicator Code	RI_UP5.1
Indicator Title	Change in the EU production with distinction between POs and Non-POs
Sub-indicators	(a) Change in value of first sales in POs (thousand EUR) (b) Change in volume of first sales in POs (tonnes) (c) Change in value of first sales in non-POs (thousand EUR) (d) Change in volume of first sales in non-POs (tonnes)
Measurement Unit	(a) and (c): thousand EUR (b) and (d): tonnes
Definition	(a) change (in thousand EUR) for PO beneficiaries as calculated by subtracting “former value” of first sales (i.e. before the operation) from “current value” of first sales (i.e. after the operation); (b) change (in tonnes) for PO beneficiaries as calculated by subtracting “former volume” of first sales (i.e. before the operation) from “current volume” of first sales (i.e. after the operation); (c) change (in thousand EUR) for non-PO beneficiaries (at the beneficiary level i.e. processor)/enterprise) as calculated by subtracting “value of products made available on the market upon processing before the operation” from “value of products made available on the market upon processing after the operation”; (d) change (in tonnes) for non-PO beneficiaries (at the beneficiary level (processor)/enterprise) as calculated by subtracting “volume of products made available on the market upon processing before the operation” from “volume of products made available on the market upon processing after the operation”
Definition – further clarification	<ul style="list-style-type: none"> • This indicator is explicit on POs and their market performance. • The term “non-POs” covers producers which are not members of POs (eligible for support under Article 68) as well as processors (eligible for support under Article 69). • The measures under SOs 5(a) and 5(b) are not fully served by the sub-indicator on POs, especially Article 69. • Numerous MSs have indicated in the FAME SU Needs Assessment

	<p>Survey in October 2015 that they consider Article 69 one of the most important measures in their OP.</p> <ul style="list-style-type: none"> • “First sales” refers to the first time these products are made available on the fishery and aquaculture products market. In the case of processors, the value and volumes to consider are those of products made available on the market after processing. It includes all steps in the value chain that add value to the products after the first sale, such as marketing to wholesalers and consumers, and is used regardless of where the processor has received the raw material from (including imports).
Specific Objectives	<p>5(a) Improvement of market organisation for fishery and aquaculture products 5(b) Encouragement of investment in the processing and marketing sectors</p>
Measures in SFC	<p>Article 66 Production and marketing plans Article 67 Storage aid Article 68 Marketing measures Article 69 Processing of fisheries and aquaculture products. Article 70 Compensation regime</p>
Inputs from the beneficiary	<ul style="list-style-type: none"> • annual total value of first sales in the year BEFORE the operation • annual total value of first sales in the year AFTER the operation • annual total volume of first sales in the year BEFORE the operation • annual total volume of first sales in the year AFTER the operation • annual total value of processed products in the year BEFORE the operation • annual total value of processed products in the year AFTER the operation • annual total volume of processed products in the year BEFORE the operation • annual total volume of processed products in the year AFTER the operation
Optional inputs from other sources	None
Inputs from the MA	None
Reference period for the single operation	<p>The time directly before the operation and after completion, for which the most current annual values exist.</p> <p>If available, averages of more than one annual cycle (e.g. 3 cycles) can be used instead to reduce the influence of outlier years.</p>
Calculation	<p>(a) Change in the value of first sales of POs = B – A</p> <p>Where:</p> <ul style="list-style-type: none"> • A = sum of value of first sales in thousands EUR BEFORE the operation • B = sum of value of first sales in thousands EUR AFTER the operation <p>(b) Change in the volume of first sales of POs = B – A</p> <p>Where:</p> <ul style="list-style-type: none"> • A = sum of volume (tonnes) of first sales in live/wet weight BEFORE the operation

	<ul style="list-style-type: none"> • B = sum of volume (tonnes) of first sales in live/wet weight AFTER the operation <p>(c) Change in the value of first sales of non-POs (in the context of this fiche)</p> $= B - A$ <p>Where:</p> <ul style="list-style-type: none"> • A = annual total value of processed products in the year BEFORE the operation • B = annual total value of processed products in the year AFTER the operation <p>(d) Change in the volume of first sales of non-POs(in the context of this fiche)</p> $= B - A$ <p>Where:</p> <ul style="list-style-type: none"> • A = annual total volume of processed products in product net weight in the year BEFORE the operation • B = annual total volume of processed products in product net weight in the year AFTER the operation
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	<p>(a) total annual revenue from first sales of POs before the operation for which the most current annual reports are available</p> <p>(b) total annual volume (live/wet weight) from first sales of POs before the operation for which the most current annual reports are available</p> <p>(c) total annual revenue from first sales of processed products of non-POs before the operation for which the most current annual reports are available</p> <p>(d) total annual volume (product weight) from first sales of processed products of non-POs before the operation for which the most current annual reports are available</p>
Assumptions for target setting at OP level	Budget of measure(s) × average “increase in sales per EUR invested” using the period 2007-2013 as national benchmark.
Comments	–

3.6 UP6 Fostering the implementation of the Integrated Maritime Policy

3.6.1 Common Information Sharing Environment for the surveillance of the EU maritime domain

Indicator Code	RI_UP.6.1
Indicator Title	Increase in the Common Information Sharing Environment (CISE) for the surveillance of the EU maritime domain (%)
Sub-indicators	None
Measurement Unit	%
Definition	Change in the level of coverage of the required maritime surveillance information (approximately 500 data elements) as established by the Technical

	Advisory Group (TAG) on integrated maritime surveillance representing all seven CISE-relevant sectors (transport, environment, border control, general law enforcement, customs, fisheries and navies) and of all relevant agencies (EMSA, EFCA, Frontex, Europol, EEA and EDA)
Definition – further clarification	<ul style="list-style-type: none"> For this indicator it is not possible to isolate the effect of a single operation on the number of landings that have been subject to physical control; any change to the number must rather be attributed to the total number of operations. Thus, for the sake of simplicity and transparency we propose that single operations do not report any value. The value of the indicator will be entered e.g. for the AIR, by the MA.
Specific Objectives	6 Development and implementation of the Integrated Maritime Policy
Measures in SFC	<p>Article 80.1.a Integrating Maritime Surveillance</p> <p>Article 80.1.b Promotion of the protection of marine environment, and the sustainable use of marine and coastal resources.</p> <p>Article 80.1.c Improving the knowledge on the state of the marine environment</p>
Inputs from the beneficiary	–
Optional inputs from other sources	–
Inputs from the MA	–
Reference period for the single operation	N/A
Calculation	<p>Increase in the Common Information Sharing Environment (CISE) for the surveillance of the EU maritime domain (%) = $B / A - 1$</p> <p>Where:</p> <ul style="list-style-type: none"> A = level of coverage of the required maritime surveillance information in % at the BEGINING of the programming period B = level of coverage of the required maritime surveillance information in % at the END of the programming period
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	N/A
Assumptions for target setting at OP level	Target setting at OP level can be based on policy targets, trends or other context considerations at the end of the OP implementation period (2023)
Comments	Not relevant for Article 97 reporting, i.e. Reg.1243/2014, Annex I, fields 23 and 24 remain void for the single operation

3.6.2 Change in the coverage of marine protected areas (MPAs) relevant for UP 6

Indicator Code	RI_UP6.2
Indicator Title	Change in the coverage of marine protected areas (MPAs) relevant for UP 6:
Sub-indicators	<p>(a) Change in the coverage of Natura 2000 areas designated under the Birds and Habitats directives (km²)</p> <p>(b) Change in the coverage of other spatial protection measures under Article 13.4 of Directive 2008/56/EC (km²)</p>

Measurement Unit	(a) km ² (b) km ²
Definition	Change in the spatial extent of Marine Protected Areas (MPAs). MPAs are: (a) Marine or inland areas belonging to the Natura 2000 network of areas (Special Protection Areas (SPA) under the Birds Directive and Special Areas of Conservation (SAC) under the Habitats Directive) designated to conserve natural habitats and species of wildlife which are rare, endangered or vulnerable in the European Union. (b) Areas under a spatial protection measure in the sense of Article 13.4 of Directive 2008/56/EC. A spatial protection measure is any spatial restriction or management of human activities to protect biodiversity and support or terminate certain industrial or leisure activities which may have effects on biodiversity protection/conservation.
Definition – further clarification	<ul style="list-style-type: none"> • The MPA should be considered as a whole, i.e. the entire area as defined in the designated area decree should be included, regardless of the specific extent of a measure. It is sufficient that an operation is located within the MPA's designated area. • The indicator should report only changes in the spatial extent of MPAs that are directly attributable to EMFF operations.
Specific Objectives	6. Fostering the implementation of the Integrated Maritime Policy
Measures in SFC	Article 80.1.a Integrating Maritime Surveillance Article 80.1.b Promotion of the protection of marine environment, and the sustainable use of marine and coastal resources Article 80.1.c Improving the knowledge on the state of the marine environment
Inputs from the beneficiary	It is assumed that beneficiaries are experienced enough to capture the spatial extent of the MPAs concerned. Attention should be given to the correct handling of the measurement unit (km ²) and the necessary transformation from other spatial units (hectare, acre or other).
Optional inputs from other sources	Agencies responsible for protected areas management can deliver the MPA designation degree, which should contain the spatial extent as a verification of the beneficiary data
Inputs from the MA	The MA should pay attention to the correct handling of the measurement unit (km ²) and the necessary transformation from other spatial units (hectare, acre or other) on data from the beneficiary or other sources
Reference period for the single operation	The time directly before the operation and up to 3 years after completion
Calculation	Change in the coverage of MPAs relevant for UP 6 = Area of marine protected areas (created due to an EMFF operation) at the operation finalisation
Baseline for the single operation (Reg.480/2014, Annex III, field 37)	Zero
Assumptions for target setting at OP level	Number of operations × average MPA size

	<p>All targets identified for change indicators need to express an improvement. Merely maintaining the status quo (i.e. target value “0”) is not acceptable.</p> <p>However many operations might have no effect on this indicator, since they typically improve an existing MPA rather than creating a new one. In this case a programme-specific indicator could be defined that quantifies the intended effect.</p>
<p>Comments</p>	<p>An alternative indicator might be proposed in the future.</p> <p>Change could be defined as: “change in coverage with improved management/conservation status” due to the EMFF intervention. Though this may be a physical extension, i.e. a new area, that does not need to be the case. Hence the “change in the coverage” of the Regulation can be interpreted in terms of a “change in coverage with improved management”. In such a case avoidance of double counting should be ensured; i.e. one MPA should be counted only once, even if it is involved in more than one EMFF operation.</p> <p>A usable alternative might be the “total area concerned by Natura 2000/MPA” which is reported in the context of Article 97.1 reporting (see CIR (EU) No 1242/2014, Annex V, VIII.2). The MA should plan to ensure that reliable numbers are provided in this context.</p>

4 Output Indicators

The Commission Delegated Regulation (EU) No 1014/2014 foresees the following output indicators (indicators different from “number of operations” underlined):

Table 2: Common output indicators

Output Indicators	Remarks	Related Articles
UP1		
Innovation, advisory services and partnerships with scientists	Number of operations	Article 26, Article 27, Article 28, (+Article 44.3),
Systems of allocation of fishing opportunities	Number of operations	Article 36
Added value, quality, use of unwanted catches and fishing ports, landing sites, actions halls and shelters	Number of operations	Article 43.1+3 (+Article 44.1.f), Article 43.2, Article 42 (+Article 44.1.e)
Conservation measures, reduction of the fishing impact on the environment and fishing adaptation to the protection of species	Number of operations	Article 37, Article 38, Article 39
Permanent cessation	Number of operations	Article 34
Protection and restoration of biodiversity and ecosystems	Number of operations	Article 40.1.a, Art40.1b-g, I, Article 40.1.h
Energy efficiency and mitigation of climate change	Number of operations	Article 41.1.a,b,c (+44.1.d)
Replacement or modernisation of engines	Number of operations	Article 41.2 (+44.1.d)
Promoting human capital and social dialogue, diversification and new forms of income, start-ups for fishermen and health/safety	Number of operations	Article 29.1+3(+Article 44.1.e), Article 29.2 (+Article 44.1.a), Article 30 (+Article 44.4), Article 31 (+Article 44.2), Article 32 (+Article 44.1.b)
Temporary cessation	Number of operations	Article 33
Mutual Funds	Number of operations	Article 35
UP2		
Innovation, advisory services	Number of operations	Article 47, Article 49
Productive investments in aquaculture	Number of operations	Article 48.1.a-d, f-h, Article 48.1.k, Article 48.1.e, i ,j, Article 52
Limiting the impact of aquaculture on the environment (eco-management, audit schemes, organic aquaculture environmental services)	Number of operations	Article 53, Article 54
Increasing potential of aquaculture sites and measures on public and animal health	Number of operations	Article 51, Article 55, Article 56

Output Indicators	Remarks	Related Articles
Promoting human capital of aquaculture in general and new aquaculture farmers	Number of operations	Article 50
Aquaculture stock insurance	Number of operations	Article 57
UP3		
Implementing the Union's control, inspections and enforcement system	Number of operations	Article 76
Supporting the collection, management and use of data	Number of operations	Article 77
UP4		
Number of local development strategies selected	Number of Strategies	Article 63
Preparatory support	Number of operations	Article 62.1.a
Cooperation	Number of operations	Article 64
UP5		
Number of producers organisations or associations of producers organisations supported for production and marketing plans	Number of producers' organisations	Article 66
Marketing measures and storage aid	Number of operations	Article 67, Article 68
Processing	Number of operations	Article 69
Number of operators benefitting from compensation schemes	Number of operators	Article 70
UP6		
Integrated maritime surveillance	Number of operations	Article 80.1.a
Protection and improvement of knowledge on marine environment	Number of operations	Article 80.1.b, Article 80.1.c

Most output indicators relate to the number of operations.

CPR Article 2 (9) defines “operation” as a project, contract, action or group of projects selected by the MAs of the programmes concerned, or under their responsibility, that contributes to the objectives of a priority or priorities; in the context of financial instruments, an operation is constituted by the financial contributions from a programme to financial instruments and the subsequent financial support provided by those financial instruments.

Usually the number of operations is governed by the number of contracts between MA and beneficiary and should pose no difficulties in collecting. For the three output indicators that

are different (number of strategies, number of producers and number of operators) the values of the output indicators might be higher than the number of operations under the measure.