EUROPEAN COMMISSION
DIRECTORATE-GENERAL FOR MARITIME AFFAIRS AND FISHERIES

Maritime Policy and Blue Economy

Brussels, 19 June 2019

NOTE FOR THE ATTENTION OF STECF PLENARY

Subject: **Protocol for using alternative sources to address major data gaps in the estimation of the main variables for EU aggregates**
Proposal for review and possible endorsement by the STECF plenary
The EU fish processing sector. Economic Report 2019 (EWG 19-15)

Aim

DG MARE would like to propose the endorsement by the STECF plenary of some basic rules for estimating missing values that could jeopardise the relevance and meaningfulness of EU aggregates. This will be based on the use of alternative data sources such as Eurostat.

Background

With the entry into force of the new EU MAP, the collection of data for the fish processing sector has become voluntary. While some Member States have indicated that they will provide the data about the fish processing sector, other Member States have stated that they will not. The lack of data for some Member States could jeopardise the relevance and meaning of the EU trends at aggregated level.

Tables 1 and 2 illustrate the extent of the problem and the proposed solution. In last report, one country reported a turnover of €846 million in 2014 but did not report data for 2015. The total turnover for the EU were reported as €29,402 million in 2014 and €29,726 million in 2015. Comparing these two figures, it looks like total EU turnover increased by 1.1%. However, when this country is not taken into consideration, the turnover increased from €28,556 million to €29,726 million, e.g. an increase of 4.1%.

Table 1: Calculation of EU aggregates using only DCF data

Turnover (€ million)	2010	2011	2012	2013	2014	2015
Example Member State	704	804	775	815	846	n.a.
Other Member States	26,322	26,759	27,830	27,958	28,556	29,726
Total EU (reporting countries)	27,026	27,563	28,605	28,773	29,402	29,726
p.m. Annual increase of Total EU		*2.0%*	*3.8%*	*0.6%*	*2.2%*	*1.1%*

Table 2: Calculation of EU aggregates using Eurostat data to fill missing data from DCF

Turnover (€ million)	2010	2011	2012	2013	2014	2015
Example Member State	704	804	775	815	846	915
Other Member States	26,322	26,759	27,830	27,958	28,556	29,726
Total EU (reporting countries + estimates)	27,026	27,563	28,605	28,773	29,402	30,641
p.m. Annual increase of Total EU		*2.0%*	*3.8%*	*0.6%*	*2.2%*	*4.2%*

When data from Eurostat (Structural Business Statistics) are used to replace the missing value for 2015, total EU turnover is estimated to have increased by 4.2% between 2014 and 2015. In this case, the use of alternative sources may lead to an estimation error of ±0.1%[1], while not using alternative sources implies an error of ±3.0% in the value of total EU turnover. If there would be missing data from more than one Member State, the size of the error would be compound.

Proposal

The expert group should strive to fill data gaps by using alternative data sources with the goal of obtaining a picture that fairly estimates the economic reality of **the EU** fish processing sector **at aggregated level**. The **estimated** (national) **data** will be used only for the purpose of calculating a better estimate of EU aggregates and **will not be included in the national chapters**.

The use of alternative data sources for filling missing the gaps in the DCF data will be based on the following principles:

- Use of **the value of the alternative source** (mainly Eurostat) for the same variable (see Equation 1).

$$(1) \qquad Ind_{est}^{n} = Ind_{alt}^{n}$$

Where:

Ind = Indicator (e.g. Turnover)
n = year n
est = estimated
alt = alternative data source (e.g. Eurostat)

- **Apply the growth rate observed on the alternative source** to the latest value in the DCF (see Equation 2).

$$(2) \qquad Ind_{est}^{n} = Ind_{DCF}^{n-1} \cdot \left(\frac{Ind_{alt}^{n}}{Ind_{alt}^{n-1}}\right)$$

Where:

Ind = Indicator (e.g. Turnover)
n = year n
n-1 = year n-1
est = estimated value
DCF = data from DCF
alt = alternative data source (e.g. Eurostat)

- If the same variable does not exist, **apply the growth rate of a variable closely connected**. For instance, Eurostat does not publish data on total income. In this case, turnover could be

[1] This estimated error is calculated as the difference between the growth rate taking into account all other MS only and the growth rate when using the alternative data source for the missing value.

used to estimate the value of total income by applying the growth rate of turnover to the last available value of total income (see Equation 3).

$$Ind_{est}^{n} = Ind_{DCF}^{n-1} \cdot \left(\frac{IndG_{alt}^{n}}{IndG_{alt}^{n-1}}\right) \quad (3)$$

Where:

Ind = Indicator (e.g. Total income)
IndG = Indicator from the same group or with similar features (e.g. turnover)
n = year n
n-1 = year n-1
est = estimated value
DCF = data from DCF
alt = alternative data source (e.g. Eurostat)

In some cases, it might not be possible to estimate data gaps. In these cases, presenting a figure aggregating the data for the available Member States can still provide a better indication of the EU trends than not reporting any figure at all. In this case, the use of different number of Member States should be clearly stated in the notes to the table as illustrated in Table 3:

Table 3: EU overview

Total EU, € million	**2010**	**2011**	**2012**	**2013**	**2014**	**2015**
Turnover	27,026	27,563	28,605	28,773	29,402	30,641*
Net profit**	1,214	700	853	1,227	1,739	1,368

* EU aggregate estimated based on alternative sources for some countries (see methodology)
** Net profits does not include Spain and Portugal because of missing data and lack of alternative sources.