

COMMISSION SERVICES NON PAPER

on

targets under Article 4 of the Commission proposal for the

Technical Measures regulation

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*This document serves as a basis for discussion at the political trilogue of 29 May 2018.
It cannot in any circumstances be regarded as the official position of the Commission. It is intended solely for
those to whom it is addressed.*

Background

The Commission's proposal on technical measures introduced the concept of quantitative targets¹. This was based on the evaluation completed in July 2014² of the existing technical measures regulations in place in terms of their relevance, effectiveness, efficiency, coherence and acceptance. The retrospective evaluation confirmed that the current technical measures are overly complex and have been largely ineffective. They do not have clear, well-defined objectives and targets nor do they provide positive incentives which reward responsible practices and incentivise compliance. Control of the measures is costly and the governance structure they operate in currently is inflexible and very much top-down with limited consultation with stakeholders.

The evaluation, as well as the subsequent impact assessment³ concluded that results-based management could be the best approach for future technical measures. This was one of the basic principles of the Commission's proposal. To evaluate the effectiveness of technical measures, the Commission proposal introduced targets relating to the levels of unwanted catches; to the level of bycatches of sensitive species and to the extent of seabed habitats adversely affected by fishing; to reflect the objectives of the CFP namely to increase fishing selectivity stipulated among others in recital 8, arts. 4(12), 7 and to achieve the CFP objective of minimising unwanted catches, in particular, of undersized juvenile fish, Union environmental legislation (in particular Council Directive 92/43 and Directive 2000/60/EC of the European Parliament and of the Council²¹), and international best practice. The aim was to:

- Monitor progress in the reduction of unwanted catches as a means to achieve better selectivity;
- Trigger management action in the event of insufficient progress and;
- Permit the possibility to move away from the current high level of detail in technical rules, in particular with regard to mesh size, towards a system that is more results orientated, based on regionalisation, whilst ensuring an EU wide level of ambition

The Commission considers EU-wide targets as essential elements of the proposal to support the objectives above. Its original proposal stipulated that catches of fish below minimum conservation reference size (MCRS) should be no more than 5%. Both co-legislators have rejected this quantitative target arguing that a one-size-fits-all target cannot possibly encompass the specificities of each fishery.

Taking note of the fact that for the Commission quantitative and measurable targets are one of the essential elements of its original proposals, the removal of which could lead the Commission to withdraw the proposal due to denaturation, both co-legislators have invited the Commission to present a possible compromise, which addresses their respective concerns.

¹ COM(2016) 134 final. Proposal for a Regulation of the European Parliament and of Council on the conservation of fishery resources and the protection of marine ecosystems through technical measures, amending Council Regulations (EC) No 1967/2006, (EC) No 1098/2007, (EC) No 1224/2009 and Regulations (EU) No 1343/2011 and (EU) No 1380/2013 of the European Parliament and of the Council, and repealing Council Regulations (EC) No 894/97, (EC) No 850/98, (EC) No 2549/2000, (EC) No 254/2002, (EC) No 812/2004 and (EC) No 2187/2005.

² MRAG et al. (2014). A study in support of the development of a new Technical conservation measures framework within a reformed CFP. Lot 2: retrospective and prospective evaluation on the Common fisheries policy, excluding its international Dimension. Brussels. 265pp

³ SEC(2016) 56 and 57

The Commission takes its role as honest broker in the ongoing interinstitutional negotiations very seriously and will do everything within its possibilities to facilitate a compromise, thus allowing a successful agreement on this important file.

Finding a solution on the issue of targets is therefore crucial to move forward with the discussions on the proposal and to ensure a results-based approach to (i) quantify the effectiveness of the technical measures regulation and (ii) permit the possibility to move away from a prescriptive towards a results based approach and (iii) provide the legal basis by providing a common objective across sea basins, considered as an essential element of the proposal.

The compromise outlined below thus reflects both the Commission's genuine commitment to facilitate an inter-institutional agreement on this file and the necessity to preserve what it considers to be essential elements of its original proposal.

Alternative: Selectivity Performance Indicators

Considering that the co-legislators have asked the Commission to come forward with an alternative that is scientifically justified and that does not include a numerical target in the body of the basic act, the alternative to the 5% target is to replace it with another quantified metric, in the form of "**selectivity performance indicators**", which would, however, appear only as a concept in the basic act, with the actual indicators to be established and agreed in line with scientific advice. This alternative presents a certain analogy to the concept of F_{MSY} ranges, as agreed only recently between the co-legislators in the context of the North Sea Multiannual Plan, where the basic act does not provide for specific numerical values, but rather refers to a concept and to the best scientific advice.

Such performance indicators would be based on the scientifically established "**optimal exploitation pattern**", as laid out in an objective in Article 3 of the Technical Measures proposal (and would therefore allow to measure to which extent this objective is being met). This is a well-established concept in fisheries management (see box below), and thus responds to both co-legislators' request of a science-based alternative.

Optimal exploitation in fisheries can be explained as follows: Where fisheries take relatively high proportions of undersized fish, they underutilise the potential from the stock because too many individuals are taken before they have had a chance to grow and reach their full potential for the fishery. On the opposite end of the scale, if only the very largest fish are caught, catches are underutilised. Hence, there is an optimal or balance point between the two situations. This is termed the length of optimal selectivity and represents the average length at which the fish should be caught. This optimal selectivity length can be contrasted with the average length of fish taken now, therefore providing two values: "where we are now" and "where we would like to be".

Selectivity performance indicators can be used to monitor progress towards the objective of achieving the ideal situation of an optimal exploitation pattern for key stocks. Additional flexibility is also provided by focussing only on a few **key indicator stocks** in each region. Taking into account the difficulty of fishing all stocks in mixed fisheries at the optimal exploitation pattern at the same time, these can be considered as a **range of values**. Having the exploitation pattern within these ranges also contributes significantly to maintaining biodiversity and maximising the yield and revenue from the stocks.

The most recent STECF report (April 2018)⁴ underlines the importance of these optimal selectivity indicators in fisheries management as follows:

Several recent publications have underlined the benefit that would result from improving size and age selectivity in fisheries and the fact that the MSY approach calculated on the current selectivity does not lead to an optimal catch and even less to a minimized impact on fish stocks and ecosystem. Cardinale and Hjelm (2012) showed for instance that changing the size range of harvested cod in the Baltic, makes it possible to largely increase the yield and revenue from the fishery compared to the fishing mortality FMSY stipulated in the management plan. Analysing a set of 36 Mediterranean fish stocks, Colloca et al. (2013) estimated that shifting the size of first capture towards the size at which fish cohorts achieve their maximum biomass would produce on average between two and three times higher economic yields and much higher biomass at sea for the exploited stocks.

Similar results were for instance obtained for the Atlantic cod (Diekert et al., 2010). More generally, analysing a set of 31 North East Atlantic stocks, Vasilakopoulos et al. (2016) showed that catching fish a year or more after they mature...promotes high sustainable yields at low levels of stock depletion. These authors concluded that explicitly incorporating selectivity scenarios in fisheries advice would allow the identification of optimal selectivity regimes and benefit results-based management.

Like the 5% target, selectivity performance indicators can be used to track the direction and progress towards the goals and objectives laid out in the CFP. Optimal exploitation is already indicated as an objective in the Technical Measures proposal (Art. 3.2.). The main difference between the 5% target as outlined in the original Commission proposal and the selectivity performance indicators is that the latter is a concept which can be translated per key stock into a metric which Member States can use as reference or indicator when drafting joint recommendations and to be able to measure progress over time.

What would be the process?

The **selectivity performance indicators** would apply to key indicator stocks and would be used to monitor progress towards the objectives of the CFP to reduce unwanted catches and achieve optimal exploitation.

These stocks would be defined in advance on the basis of their relative importance to the catches in the region and the current level of unwanted catches. The most important stocks with the highest levels of unwanted catches would be selected. Where Multi Annual Plans are adopted, these key indicator stocks would also be chosen from the existing list of driver stocks identified in the plan (see annex for further explanation).

The Commission would then request the best available scientific advice from ICES in the North East Atlantic and Baltic and STECF for the Mediterranean to provide the basis for the selectivity performance indicators for these key stocks. This is a scientifically robust alternative to the 5% target contained in the original Commission proposal. ICES will be requested to provide a range of values that will be used to describe the "selectivity performance indicators" that will then be transcribed into a Delegated Act.

Member States would draft joint recommendations on the basis of Article 18 to adapt the regional technical measures and change mesh sizes, by using the **selectivity performance indicators**. Such a metric can not only be used to measure progress towards the existing CFP objective of minimising unwanted catches in the light of regionalisation, but also to highlight if and where insufficient progress is being made in order to initiate or trigger actions where additional corrective measures are required.

⁴ 09-13 April 2018, Brussels --- 57th Plenary meeting report -- <https://stecf.jrc.ec.europa.eu/reports/plenary>

The Commission would like to help the decision-makers to find a solution with this alternative to the 5% target which would fulfil the following conditions:

- It would be science-based;
- It would focus on key stocks in line with the approach adopted with the MAPs;
- It would provide a quantified indicator, essential for the results-based approach underpinning the technical measures framework;
- Given that the values followed on the basis of the best available scientific advice it avoids the necessity to prescribe specific numerical targets in the technical measures regulation;
- It would be a flexible approach, acknowledging the specificities of different stocks rather than a 'one size fits all' approach.

Annex

How does the proposed alternative work in practice?

Defining the Key Indicator Stocks

In the example provided here, the candidate list of indicator stocks have been selected from the list of demersal fish stocks identified in the compromise for a North Sea Multi Annual Plan.

In order to avoid complexities in achieving the optimal selectivity pattern for all stocks simultaneously in complex mixed fisheries, only a limited number are proposed as indicator stocks and where current levels of unwanted catches are less than 5%, they have been excluded from the list, for example anglerfish in the table below.

In order to provide an objective and robust approach to selecting which stocks could be used to monitor the achievement of the selectivity performance indicator the following approach could be applied. Using the most recently available catch data obtained from STECF, the stocks are ranked on (i) their overall contribution to the catches and (ii) the current level of unwanted catches. These two rankings are then combined to provide an overall score that is based on both the overall contribution to catches and weighted by the level of unwanted catch.

For illustration purposes the example below can be used. It shows that, while whiting is ranked 5th in overall catches, because the current levels of unwanted catches are the highest, the overall score ranks whiting in second place.

	landings	discards	Catch	% unwanted	Rank Catch	Rank Unwanted catch	Overall Score ⁵
Plaice	222423	158506	380929	42%	1	2	0.50
Whiting	44994	39850	84844	47%	5	1	0.20
Saithe	99080	20537	119617	17%	2	3	0.17
Cod	124620	23893	148513	16%	3	4	0.08
Haddock	90324	14054	104377	13%	4	6	0.04
Sole	35932	7080	43012	16%	6	4	0.04
Angler	26970	860	27831	3%	7	7	0.02

Selectivity Performance Indicator

Exploitation pattern is a measure of how fishing pressure is distributed over the length composition of the fish stock. It depends on the selectivity of the gears used in a fishery and on the extent to which particular age/size classes are targeted. Where fisheries catch relative

⁵ Overall score is calculated by $1/(\text{rank catch} \times \text{rank unwanted catch})$, e.g. for whiting = $1/(5 \times 1) = 0.5$

high proportions of juveniles, then the exploitation pattern should be adjusted to minimise the levels of unwanted catches. This not only reduces unwanted catches but allows the stock to give higher levels of catch as individual fish are allowed to grow and reach their full potential for the fishery.

When this full potential is reached the optimal exploitation pattern has been achieved.

Recent scientific studies⁶ have provided candidate selectivity reference points that can be used to monitor if the full potential is being achieved. For example, *Lopt* is the average length in the catch whereas *Lc opt* is the size at which fish are first caught. These will be used as the basis of the scientific advice.

For illustration, the five of the candidate indicator stocks for the North Sea are provided in the table below. For example, *Lopt* for plaice is estimated to be 36cm, whereas the current average is 34cm. So while the current average is close to achieving *Lopt*, because relatively high levels of juveniles are still being caught (see table above) progress would still be required to achieve *Lc opt*, meaning that there is a need to reduce unwanted catches if this reference point is to be met.

In practice, achieving the optimal point for all stocks simultaneously in mixed demersal fisheries could be problematic. To avoid this, as previously described only a limited number of stocks should be monitored and secondly, it is considered necessary that there should be a workable range around the optimal level that can allow trade-offs between stocks. This is analogous to the concept of ranges used in the Multi Annual Plans.

Here we propose a range of “**selectivity performance indicators**” as a reference range. For example where there would be trade-offs for example between cod and haddock, which are caught in the same fishery, it may be necessary to have a lower range that would correspond to the current MCRS for example.

	Lower (MCRS)	<i>Lc opt</i>	<i>Lopt</i>	Current Average Length
haddock	30	41	49	34
sole	24	21*	25	25
whiting	27	23*	27	24
plaice	27	30	36	34
cod	35	62	74	64

**Where *Lc opt* is lower than the current MCRS, then the MCRS shall be used as the lower value for the optimal selectivity range*

Based on the above, the use of these selectivity performance indicators it is then possible to consider a much more results based approach that will provide more flexibility for regions

⁶ Froese R., Winker H., Gascuel D., Sumaila U.S., and Pauly D., 2016 - Minimizing the impact of fishing. Fish and Fisheries, 17: 785–802.

and fishermen to adapt their fishing gears and practices. Positive changes in average length over time can show positive progress through the selectivity performance indicators and providing sufficient ranges and using a few indicator stocks will provide the flexibilities necessary deal with mixed fisheries.

Possible Legal Text

- (1) Technical measures shall aim to achieve the following:
 - (a) **selectivity performance indicators determined in accordance with paragraph (2) of this Article for key indicator stocks included in Part X of annexes V to XI;**
- (2) **The Commission shall be empowered to adopt delegated acts establishing the selectivity performance indicators referred to in point (1)(a) of this Article based on the best available scientific advice and expressed as a range of values that takes into account achieving the optimal exploitation pattern as referred to in Article 3.2(a) of this Regulation in mixed fisheries.**

Depending on the outcome of the discussions, it may be necessary to consider article 34 which covers the review and reporting requirements and article 18 on regionalisation.

Definitions (new)

- (1) “exploitation pattern” is the distribution of fishing mortality over the age or length composition of the fish population, that depends on the selectivity of the gears used in a fishery and on the extent to which particular age/size classes are targeted.
- (2) “optimal exploitation pattern” defines the average length of capture that optimises the growth of individuals in a stock.
- (3) “selectivity performance indicator” is a range of reference points that can be used to monitor progress towards the objective of achieving optimal exploitation pattern for key stocks that can be used to take into account the difficulty of fishing all stocks in a mixed fishery at the optimal exploitation pattern at the same time.
- (4) “key indicator stocks” means, for the purposes of this Regulation, key stocks that are used to monitor the progress towards the achievement of the selectivity performance indicator and are selected based on their relative importance to the fisheries and the level of unwanted catches from the period 2013 to 2016.