Supporting evidence for application for a *de minimis* exemption to the landing obligation for artisanal pelagic trawl fisheries using OTM and PTM in ICES division VIIId.

In the framework of the landing obligation in accordance with article 15 of regulation (EU) No 1380/2013, a de minimis exemption is requested:

*for catches of mackerel, horse mackerel, herring and whiting, up to a maximum of 1% in 2018, 2019 and 2020 of the total annual catch of those species for pelagic trawlers (OTM/PTM) up to 25m (overall length) targeting mackerel and herring in ICES division 7d.*

The request for an exemption for de minimis is mainly based on article 15.c.i), due to difficulties to further increase selectivity in this mixed fishery. Elements are also given on disproportionate cost (article 15.c.ii) a total application of the landing obligation would cause in this fishery.

**Note: The same exemption is requested in area 4bc as it is the same vessels operating in those areas in the same conditions.**

This exemption was included in delegated acts 1393/2014 and 1395/2014 which are coming to end on 1st December 2017. Thus, this document is an update of the request addressed 3 years ago, including new elements in order to justify its renewal and answer STECF comments made in 2014 plenary (14-05 plenary)

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Motive

Given the difficulty to increase the selectivity and the disproportionate cost of handling unwanted catches, a *de minimis* exemption for mackerel, horse mackerel, herring and whiting caught by pelagic trawlers up to 25 meters (overall length) using gear type OTM and PTM is requested. Because this fishery is already selective, few studies have been held on selectivity. Moreover, studies that have been conducted previously (Casey *et al.*, 1992; Marlen *et al.*, 1994; Suuronen 1991) show that it is difficult to improve selectivity. A total landing obligation would also have no negligible socio-economic impacts on this fishery.

The evidence base for this exemption is mainly based on the French fleet but it should apply equally to vessels from other Member States that fish for the same species in the same areas in the same way.

Characteristics of the fishery and its activity

The artisanal pelagic fishery asking for an exemption of *de minimis* is formed by tens of under-25m refrigerated seawater vessels. The gears used are pelagic trawls (*Midwater otter trawl* - OTM - and *Midwater pair trawl* - PTM - ). They fish all year long in the south of the North Sea (ICES Division IVc, IVb) and move down through the eastern Channel (ICES Division VIIId). According to French Sea Observer Program (ObsMer), 106 vessels were having this activity in 2015 with home harbour from Cherbourg to Boulogne-Sur-Mer; French vessels are permitted to enter the UK 12-mile zone, because of historic fishing rights, but must stay outside six miles. Fishing trips last up to one day (sometimes only a few hours) and fishing mostly takes place during the day. No processing is observed aboard and the catch is stored on board in refrigerated holds in boxes or bins. The target species are mainly mackerel, herring and sardine.

During a same fishing trip, OTM can be used in complement of OTB (Bottom otter trawl). Those fishing trip are then considered as mixed trip. *For the purpose of this exemption, only fishing operation using OTM or PTM gears would be concerned by this de minimis.*

Composition of catches, landings and discards

In 2015, 39 fishing trips and 106 fishing operations on pelagic trawlers have been monitored by the French Sea Observation Program (ObsMer). 60.9% of the fishing trips and 44.3% of the fishing operations were considered as mixed trips/operation, because OTM was used in complement of OTB (for demersal species) during the same trip.

The following results on discards are the only ones who can be assessed from ObsMer (Cornou *et al.*, 2016) for artisanal small pelagic fisheries in ICES areas VIIId and IVbc. They are based on the 106 fishing operations using pelagic trawls and reported to target mackerel and herring in VIIId and IVbc. Distinction on discard information between VIIId and IVbc is not possible because the activity of this fishery (as well as the fish stocks they target) overlaps the two areas. It is important to note that
results presented below are including mixed fishing trip, thus those data should be used only for information purposes.

In 2015, the estimate discard rate for the fishery is 10%, however for example when using OTM and targeting herring, and according to logbooks data, the discard rate is almost at 0%.

According to 2015 ObsMer data (Cornou et al. 2016), herring, mackerel and sardine represent 86% of the total catch (Figure 1). They are almost all caught above the minimum conservation reference size (except in IVc where discard of undersized mackerel are indicated, probably due to different MCRS between VIIId and IV). The main TAC species discarded are horse mackerel and whiting (Figure 2). The presence of whiting may be explained by the fishing operations in shallow water (Bay of Seine). Whiting only represent 0.7% of discard on the total catch (84% of the whiting discarded is below MCRS). The important intervals of confidence for whiting and mackerel also illustrate the variability of discards of these species from a fishing operation to another.

![Catch composition](image1.png)

**Figure 1.** Catch composition of species in weight for pelagic and bottom trawlers under 25m length in the North Sea and Eastern channel (2015, ObsMer data)

![Discard composition](image2.png)

**Figure 2.** Discard composition of species in weight for pelagic and bottom trawlers under 25m length in the North Sea and Eastern channel (2015, ObsMer data)
The four species concerned by the request have minimum conservation reference size:

- Herring: 20cm
- Mackerel: 30cm in North Sea, 20cm elsewhere
- Horse mackerel: 15cm
- Whiting: 27cm

According to ICES advices in 2016, herring (Subarea 4 and divisions 3.a and 7.d stock) and whiting (Subarea 4 and divisions 3.a and 7.d) stocks are in safe biological limits as defined in the CFP.

**Specifying de minimis volume**

Only for information purpose, hereafter is presented an estimate of the maximum discard volume with this exemption.

According to ObsMer data 2015, overall catch of the species concerned (herring, mackerel, horse mackerel and whiting) for French artisanal pelagic trawlers are 8662.0 tonnes. Thus, in 2015 a de minimis of 1% would have allowed a maximum volume of discard by French vessels using OTM and PTM of **86.62 tonnes** (see annex 1 for more detail). This discard volume estimate is including OTB fishing operation (mixed fishing trip), then this volume is probably over estimated.

A 1% de minimis would offer the flexibility needed by artisanal pelagic trawlers to face the variability of catch composition depending on fishing operation.

**Difficulty to increase the selectivity**

French artisanal small pelagic fisheries have particularly low rates of discards due to their selective nature, including the fact that fishermen already adopt voluntarily spatio-temporal measures to avoid unwanted catches. Nevertheless, they may be more important and diverse than for large scale pelagic fisheries, notably because of the fishing areas close to the coast and / or at small depth, explaining for example the presence of demersal species in some catches and discards.

A recent scientific report from IFREMER (Institut Français de Recherche pour l'Exploitation de la Mer) (Vogel et al., 2016) make a summary of all selectivity works conducted in France for all gears and all areas. International works were also included in the reflexion for this report. This report indicates that pelagic trawl selectivity is defined on the same parameters as the bottom trawls. Previous studies on pelagic trawls selectivity have been focusing on mesh size geometry, trawler conception and selective grids. Main species studied are mackerel and herring. Results of the different studies are variable but none of the study seems to show convincing results. For example, Casey (Cassey et al., 1992) compared the selectivity of square and diamond mesh and suggests that this device (square mesh) was not appropriate to improve mackerel selectivity in this fishery. Suuronen (Suuronen et Millar, 1992) also worked on net mesh (square vs diamond) but on herring selectivity in the Baltic sea. Results show better selectivity improvement but depending on the volume of the total catch (net obstruction). Tests on selective grid for herring (Suuronen, 1991; Suuronen et al, 1996) and mackerel (van Marlen et al, 1994) have not yet shown any significant result.
As Pelagic AC recommendations emphasized at the beginning of the landing obligation implementation (PRAC, 2014), the rather clean nature of small pelagic fisheries may explain why there has been only limited development and research effort directed to increasing selectivity in pelagic trawl fisheries within the ICES community.

Even if numerous selectivity programs have been developing in the frame of the landing obligation (DISCARDLESS, SIMBAD, REDRESSE, EODE...), none of them is focussing on artisanal pelagic trawls. Moreover, no study is planned on pelagic trawler for now, making difficult to improve even more selectivity for this fishery in a short term period.

Hereafter are the reasons of the discards for the main species in the artisanal small pelagic fisheries, in relation with the capacity to improve the selectivity.

**Discards of whiting are mainly due to its minimal landing size (27 cm), which is taller than the minimal size of the target species (mackerel, 20 cm in VIId), and difficulties to avoid it with the mesh size used (< 70 mm). Although if mesh size is increased in order to avoid whiting unwanted catches, it is more likely that there will be commercial catches loses (especially herring, as for now very little herring catches are discarded, herring catches being all above MCRS).**

Discards of mackerel are mainly due to quota limitation, as well as the discards of herring. Since at least 2013, at French level, both quota of mackerel and herring are consumed almost 100% at the end of the year. Discards of undersized mackerel especially occur in the ICES subarea IVC because of the taller minimal size in place (30 cm) compared to the VIId (20cm). The harmonization of the minimum conservation reference size (20 cm) between the two areas would help to reduce unwanted catch of undersized mackerel for this fishery. Although discard rate of mackerel is really low (0,1% of total catch according to 2015 ObsMer data for pelagic trawlers), the volume of discards can be occasionally higher in some fishing trips because of fishing randomness.

The low market for horse mackerel explains the majority of the discards observed; it seems difficult to develop a market for this species in France on the short term, in view of the aleatory nature of the catches. It also seems really difficult to increase the selectivity, as the discards already represent a really small percentage of the catches.

Finally, some discards are also due to the quality of the fishes, which can be damaged by the scissors effect and others mechanical effects of the nets. Few solutions exist for these kinds of discards, especially in terms of selectivity.

Disproportionate costs of handling unwanted catches

Few studies have previously studied what will be the economic impact of a landing obligation, especially regarding what the CFP called the "disproportionate costs" (Buismann et al. 2013, Condie et al. 2013a and b, Poseidon, 2013; Macher et al., 2015). It is important to notice that several scientific projects (CELEASELIC, REDRESSE) are currently ongoing for mixed fishery, which will try to assess the economic impacts of the landing obligation at vessel and fleet levels.
It was also one of the aims of the EODE French project which ended beginning of 2016. This project has been running for 2 years (2014-2015; Balazuc et al., 2016). This study was conducted in the North Sea and the Eastern Channel with the objectives to look at the adaptation of the fishing strategy of bottom otter trawlers (<100mm) in front of the landing obligation, and the impact of the LO onboard and inland. During the trials (2 weeks per month between October 2014 and September 2015), the vessels were in the situation of full or half-full landing obligation. Since this project was conducted on bottom otter trawlers, results are only indicated for information purposes.

The EODE project also aimed to evaluate economic impact of a full landing obligation. Link to the limited hold capacity, results show that the full application of the landing obligation would conduct to fill the hold more quickly and with a significant part of undersized fish that cannot be avoid for the moment. Consequences are the return of the vessel at home harbours more quickly to land their catches with catches not valuable or at a minimum price. A fishing trip would therefore be less economically profitable and thus the salary of the crew will be decreased too.

This study also provided results on sorting time. It showed that the sorting and stowage time will be largely increased and this would imply less resting time for the crew. Moreover, the landing obligation will have impact on onboard materiel constraint. Vessels have maximal loading charge (according to their navigation permit) in order to assure security and vessel stability. On the vessels studied during the trial, the loading charge was not the main problem (even if in some cases it was, and would have conducted to stop the fishing trip) but the volume of catches. Indeed, hold capacity is limited, especially on vessels under 18 metres.

No project has previously studied this aspect for pelagic fisheries, and no study are planned to be set up in a short time. Moreover, the economic problem of landing obligation in OTM artisanal fishery is really difficult to approach because its activity is generally mixed with demersal fishing operations during the same fishing trip.

General observations can already emphasize that the landing obligation will result in many additional costs for the fishermen (as underlined by the Commission staff working paper, 2011). These costs will prove most certainly disproportionate compared to the valorisation which could be made of the unwanted catches to be landed.

1. Unwanted catches is often due to the absence or the low local market because of the inherent low market value of some species (horse mackerel, herring) or the quality of the fishes (scissors effect of the nets, etc.)
2. Catches are sorted by men and not machines, thus increasing the labour cost onboard if unwanted catches with low market value have to be sorted and stored
3. Vessels have a legally limited capacity of storage, which may be affected by the need to store unwanted catches at the expense of targeted and commercial catches
4. Storing these catches (storage box and icing in particular) will increase the cost of fishing. Moreover, most of the artisanal vessels (~25 years old in average) will certainly be technically unfitted to handle all the unwanted catches
5. Companies which can enhance the economic value of unwanted catches are still rare in France, resulting in additional costs related to the logistics of collecting these unwanted catches. Their

onshore processing will be even more problematic, because landings of unwanted catches will not be regular in terms of quantity and quality.

6. Even after 3 years of landing obligation, no development of new market for unwanted catches seems to have been developed, and thus will not be possible before January 1st, 2018.

The H2020 Discardless and MINOUW project will give precious information on the way the landing obligation can be dealt by the fishermen.

**Conclusion**

According to available French data (logbook), very few discards have been reported for the exemption previously in force for OTM gear (article 3 of delegated act 1395/2014 and article 3 (c) of delegated act 1393/2014). Nonetheless, this could be explained by the fact that, because of the application of the landing obligation, vessels prefer to use other gear not yet under landing obligation, however it is likely to be temporary as in the next years all gears will be under landing obligation. Another fact has also been reported, which was also questioned by STECF at the time (STECF plenary report 14-02), which could explain the non-use of this exemption before: PTM gear was not included in this exemption at the time. After several exchange with the industry it seems appropriate to maintain this exemption, with a lower percentage (1%) and including PTM gears (for which some discards are reported).

Because of all the work done on the field to raise awareness about the implementation of the LO and the importance to report all discard, it is likely that discard data will be more available in the next years.

Finally, because of the clean and already selective nature of the fishery, it seems appropriate to allow an exemption in order to give them more flexibility when needed (occasional fishing operation with more discards).

- Discard volume in artisanal pelagic fishery (using OTM and PTM) are low but could be occasionally higher because of fishing hazards.
- Previous programs working on selectivity in North Sea and the Channel didn’t show any convincing result on selectivity improvement that doesn’t imply too many commercial loses for the fishermen, but still, selectivity program are running (REJEMCELEC, DISCARDLESS...) with the aim to test new and existing gears (which could inspire new test on pelagic gears);
- The H2020 Discardless and MINOUW projects will give precious information on the way the landing obligation can be dealt by the fishermen;
- De minimis exemptions can provide the flexibility to the fishermen to adapt their behaviour to such new regulation frame (even if it’s been 3 years that the landing obligation came into force, it is still a big change for fisherman and they need time to adapt).

The table established by STECF during the EWG 16-06 has been completed in Annex 1. This table summarizes information on the French fishery that would potentially be concerned by this exemption.
References


Pelagic Regional Advisory Council. 2014. Recommendation on implementing the EU landing obligation in pelagic fisheries. 102 pp


Annex 1. Template for the provision of information that defines the fisheries to which de minimis exemptions should apply (template 4.1a from the EWG-16-06 report to the STECF)

(This document has been modified for the purpose of this de minimis request)

<table>
<thead>
<tr>
<th>Country</th>
<th>Exemption applied for (species, area, gear type)</th>
<th>Species as bycatch or target</th>
<th>Number of vessels subject to LO</th>
<th>Estimated landings - all species (in tonnes)</th>
<th>Estimated discards - all species (in tonnes)</th>
<th>Estimated catch - all species (in tonnes)</th>
<th>Discard rate</th>
<th>Estimated de minimis volumes (in tonnes)</th>
<th>Estimated de minimis volumes (in tonnes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>FR* (applicable UE)</td>
<td>species: small pelagic species (mackerels, herring, horsemackerel, whiting)</td>
<td>by-catch</td>
<td>106</td>
<td>13850</td>
<td>1602</td>
<td>15452</td>
<td>10.4%</td>
<td>8662</td>
<td>86.62</td>
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<td>other MS?</td>
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* Source: ObsMer data 2015 (Cornou et al, 2016)