

## 11.2.1 Request from Belgium for ICES to review a draft procedure to allow for scientific testing of bottom impacting fishing gear in two fisheries management zones

### Review summary

ICES organized for three independent reviews to be undertaken on a Belgian procedure for providing authorization to enter two specific fisheries management zones to test lower/alternative bottom impacting fishing gear. The reviews are included in unchanged form, apart from some formatting and minor corrections.

The reviews are based on a five-page procedure “Draft Procedure zone 2 and 4” (version: Draft 3 – 16/09/2016, see Annex 1).

### Request

Request from Belgium for ICES to review a draft procedure to allow for scientific testing of bottom impacting gear in two fisheries management zones:

*ICES is requested to review a drafted procedural steps that have to be followed when one wants to exceptionally enter two fisheries management zones called zones 2 and 4. These are both zones where non-impacting and alternative less-impacting gear is allowed. The latter only if scientific testing of impacts is guaranteed for which a specific authorisation is required. The review should not evaluate the proposed fisheries management measures as such, but evaluate a specific procedure to provide authorisation to enter two specific fisheries management zones.*

### ICES review / technical service

To address the request from Belgium for ICES to review a draft procedure that allows for scientific testing of bottom impacting fishing gear in two fisheries management zones, ICES appointed three independent reviewers: Reviewer 1, Dominic Rihan (Ireland); Reviewer 2, Ellen Kenchington (Canada); and Reviewer 3, Carolyn Lundqvist (New Zealand).

A five-page “Draft Procedure zone 2 and 4” (version: Draft 3 – 16/09/2016) was supplied to ICES on 16 September 2016 by Marijn Rabaut of the Flanders Marine Institute (VLIZ) of Belgium (see Annex 1). The three reviewers worked from 7 October 2016 to 31 October 2016 to deliver independent reviews of the procedure. The scope of the reviews was to evaluate the specific procedure for providing authorization to enter two specific fisheries management zones to test lower/alternative bottom impacting gear. The reviews commented on the completeness of the procedure, as well as on the scientific content presented.

### Reviewer 1

#### Introduction

The application process and procedure contained in this proposal seem reasonable and straightforward. However, the proposal mainly describes the process and governance issues, with very little detail on the scientific and technical parameters against which the testing will be carried out. Without this detail it is difficult to provide a scientific or technical assessment of whether the procedure will allow adequate assessment of whether to allow an alternative gear to be used within an area otherwise closed to fishing.

As a general comment the main weakness with the proposal lies in the lack of detail of the indicators that will be used to make an assessment of whether to allow a particular gear to be tested and ultimately used or not. The assessment process is rather general and there would seem to be a real danger that a gear may be allowed for testing that may in fact turn out to cause significant impacts during testing. In addition, on the basis of the results of the experiments, a gear may be assessed as having a lower impact than a “classical” fishing gear but may in fact still have significant impacts on the seafloor due to a lack of clarity

about the baseline gear the alternative gear is being tested against. The granting of an authorization to use such gears in both cases could lead to irreversible impacts on the habitat.

The comments in the following sections highlight parts of the procedure that are unclear or where there are potential deficiencies.

### *Context*

This section is largely descriptive, but the procedures described in the CFP should be qualified with reference to the actual provisions within the CFP that the procedure intends to follow (i.e. there should be a reference to Article 11 of Regulation (EU) 1380/2013).

In this regard it is not clear whether the relevant zones are within Belgium waters and whether the fisheries involved in these zones are purely Belgian. This will have a bearing on the procedure and the consultation process that should be followed. If the proposed restrictions only impact on Belgian vessels, then Article 11 paragraph 1 is relevant. This empowers Member States to adopt conservation measures within sensitive areas. The procedure outlined seems to follow this logic. However, if other Member States have a “direct management interest” in the area and the Commission adopts the conservation measures following the consultation process set out in Article 11, paragraphs 2 and 3 are relevant. In the latter case the CFP is clear that such fisheries measures must be non-discriminatory to vessels from other Member States with a “direct management interest”. If this is the situation with these particular areas, then the procedure should detail how this consultation has been carried out in the designation phase and how it will continue during the application process.

### *Zones 2 and 4*

The description and location of the zones is rather vague. The map included is indecipherable and there is not even a basic description of what is being protected in the areas. Such a description would give the reader some context for understanding the basis for the procedure.

### *General Rules*

The general rules set out are largely straightforward and seem appropriate. However, it is not clear:

- Who can apply?
- What the term MSP refers to in the second bullet or who is FPS Environment? In both cases the full titles should be given (FPS is defined later in the proposal).
- On what basis a permission to fish in the area can be withdrawn? The proposal talks about authorization criteria but is not clear what these criteria are or who makes the decision to withdraw the permission and in what time frame.
- Why data must be made publicly available after 5 years and the final report after only one year?

### *Possible Beneficiaries*

This section would almost seem superfluous as it is difficult to see how recreational fisheries, research institutes, manufacturers, producers, and trade organizations or national, regional, or local governments and administrations would benefit from this procedure.

It is not clear where the criterion relating to vessel owners of “at least” 60 days of fishing activity arises from and what relevance it has for the procedure.

### *Procedure*

The procedure provides a logical structure and process for managing applications. The timelines for processing applications seem reasonable, although the time allocated for assessing applications is perhaps rather short. However, it is rather general in nature and the following weaknesses or deficiencies are identified:

- The baseline that is meant to protect seafloor integrity and how this baseline will be established is not clear from the procedure. It is assumed this has already been assessed during the designation process, but it is not explicit.
- Given the uncertainty and inherent difficulties in measuring the impact of fishing gears on seafloor integrity, the phrase “guaranteed scientific testing” is misleading. Scientific testing will only provide estimates of the likely impacts measured within the context of a controlled set of trials.
- The term “classic trawlers” should be better defined. This effectively is the baseline gear against which any alternative gears will be compared. Defining this gear and the characteristics of the vessels that currently use it in the area is fundamental to the procedure having scientific rigour. Who will determine this gear is not clear. In a worst case scenario an alternative gear could be found to have less impacts than the baseline gear, but the baseline could still be significant if the baseline is not representative of the gears typically used in the defined areas and of the characteristics of the vessels that traditionally use them.
- It is not clear whether the reduced impact relates purely to the physical impact or to both the physical and the biological impacts. This should be better described.
- It is not clear what the term “other ecosystem impacts” refers to or how such impacts should be addressed. It is also unclear whether the use of such a gear should be authorized if these impacts are significant, but the impacts on the seafloor are minimal.
- The procedure refers to a scientific committee that subjects the application to an internal evaluation. However, it appears this committee is more or less an extension of the selection committee. Therefore, it is not clear what is the value of this scientific committee and whether this step in the procedure is actually needed, given the same people will assess the applications twice. Combining the two steps may offer more time to carry out the assessment itself.
- The structure and composition of the National MSP Working Group is vague.
- The fishing industry is unlikely on its own to be able to conduct the experiments required to test alternative gears; they will need assistance from research institutes from Belgium or elsewhere. Given the structure of the selection committee and the fact that the main scientific institutes in Belgium are to be members of this committee, there may be a danger of a conflict of interest in that one part of an institute would be assessing the work of another part of the same institute. An indication of how potential conflicts of interest would be handled should be included in the procedure.
- Given the likely technical nature of applications received, the participation of a representative from the fishing industry with a detailed knowledge of the gears proposed may be desirable.
- A peer review of the final advice from the selection committee would add scientific rigour to the procedure.

### *Eligibility and Selection Criteria*

Both the eligibility and selection criteria are rather vague and it is not clear how applications will be assessed for compliance against the eligibility criteria or scored against the selection. Critically, there are no “impact indicators” (i.e. pressure and biotic indicators) detailed in either the eligibility or the selection criteria against which to measure whether the alternative gear has a lower impact than a standard gear. The criteria are described in vague terms such as “significant” and “relevant and realistic”. These terms should be qualified, otherwise they are rather meaningless. If the intention is for these to be defined by the selection committee, then this should be explicit in the procedure.

It is also not clear who will actually make the assessments against the eligibility and selection criteria. The assumption is that this will be done by the selection committee, but this is not explicit.

The terms “other ecosystem” impacts and “classical fishing gears” should be qualified. Moreover, it is not clear what is meant by the term “timing and used zones” under the selection criteria.

### *Content of the Application Form*

The Application form should contain a detailed description of the baseline gear or gears against which the alternative gears are being tested. A reference to indicators to be used to measure impacts should also be included in the context of the methodology and expected results.

### **Reviewer 2**

Belgium has drafted procedural steps that have to be followed to make use of the exception to enter two fisheries management zones. The two concerned zones are called zones 2 and 4 and are both zones where non-impacting and alternative less-impacting gear is allowed to operate. The latter is an exception and can only be allowed for if scientific testing of impacts, for which a specific authorization is required, is guaranteed. Authorization can only be given if it concerns testing of alternative seafloor-disturbing fishing techniques, i.e. techniques with a lower impact on the seafloor than the classic trawlers. The Procedure aims to provide the framework that give users authorization to enter conservation zones for gear-testing trials. Authorization that scientific testing has been guaranteed would be assessed using this Procedural framework to determine whether specific conditions outlined therein have been fulfilled.

#### *Comments on the Context Section*

This section should outline the expectations of the Procedures so that the full context of the application can be understood. It is clear that the Procedures are intended to allow testing of alternative fishing gear types in areas that are closed to increase seafloor integrity; however, why this is being allowed is not clear. Is the idea that these areas could be opened to fishing with the new gear in future if the experiments are successful? Or are the areas to be used as research areas for application elsewhere? If the former, does the successful applicant have future rights to the area, given the initial investment? This is critical for evaluating the “fair playing field” aspect of the initial applications. Furthermore, it is not at all clear to me why the testing of the alternative gear type has to take place in zones 2 and 4 where non-impacting and alternative less-impacting gear is allowed. Can the testing not be done in other zones and a decision then made on the use of this gear in zones 2 and 4? If not, why not? Is there some context that would clarify this?

The document later refers to recreational fishing and to something called MSP renewal. Both of these aspects need to be placed in context with this Procedure and the larger goals that created the need for the Procedure. What is MSP renewal and what are the implications, if any?

Importantly, the Selection Criteria specify that the proposal must have sufficient socio-economic potential and a communication strategy. Both of these should be clarified in this section. This need not be extensive but should provide background for what is expected.

#### *Comments on the Zones 2 and 4 Section*

This section should outline briefly the habitat of the two zones, as a minimum indicating their size, depth, and the current and past fisheries there. The figure should include the 5th zone and have a scale bar and land reference as well as latitude/longitude. A caption is required.

It should be clear to applicants whether the authorization will be for a specific time, location within these areas, or whether they can be flexible once authorization has been given. If flexibility is not an option, all data for each location (multibeam, habitat, etc.) needs to be publically available for applicants to design their experiments. This is necessary for a level playing field to be demonstrated – otherwise one group could benefit by information not available to another group (e.g., if multibeam data is privately owned), and the goal is to get the best scientific data from the experiments, so shared and up to date background data is desirable.

*Comments on the General Rules Section*

Current list:

1. The project cannot be started before permission is granted.
2. End of project (i.e. final reporting) must be finalized before formal MSP renewal.
3. An application (including project specificities) has to be submitted to FPS Environment.
4. By applying, the applicant agrees for full cooperation, and will provide answers to any questions or requests for additional information.
5. The permission granted for the use of the area can be withdrawn when the applicant does not longer comply with the authorization criteria.
6. Data of the project have to become publicly available (the latest 5 years after the project).
7. Annual reporting and mid-term evaluation is mandatory. The results of the final report have to be made publicly available 1 year after the end of the project.

The order of the bullets should follow the timelines of the project, with the exception of the first bullet which I agree should be first:

1. The project cannot be started before permission is granted.
2. An application (including project specificities) has to be submitted to FPS Environment.
3. By applying, the applicant agrees for full cooperation, and will provide answers to any questions or requests for additional information.
4. The permission granted for the use of the area can be withdrawn if the applicant fails to comply with the authorization criteria.
5. Annual reporting and mid-term evaluation is mandatory. The results of the final report have to be made publicly available 1 year after the end of the project.
6. End of project (i.e. final reporting) must be finalized before formal MSP renewal.
7. Data of the project have to become publicly available (at the latest 5 years after the project).

This revised order makes it easier to see that there is an inconsistency with the timing of the public release of the final report and the release of the data supporting it. I think that the data related to the findings of the report must be released at the same time as the final report. Otherwise there is no means of independently evaluating the conclusions of the report. NGOs will be interested in validating the analyses. There may be a need to separate the timelines for reporting on the results of the experiments (scientific data), which should be released at the same time as the final report, from those of the gear specifics, which may be under patent or other legal obligations. This should be reviewed and clarified.

Notes: What is MSP? It is not defined. What does renewal mean in this context? Clarification is needed.

*Comments on the Possible Beneficiaries Section*

The list of "Possible Beneficiaries" does not distinguish between beneficiaries of the application process itself, and those who ultimately "benefit" from the exception, such as the general public, conservation interests, fisheries, etc. The list is really one of potential applicant groups, but it fails as such: successful applicants would need to have expertise in science, in fishing gear, and in operation of fishing boats (if only to deploy and operate the gears under test). They will also need funding and some focus on fishery-management issues. So 4 of the 5 bullets are not alternative applicants but rather required participants in the team that almost any applicant would need to assemble. I recommend that this list be re-considered from its concept upwards to its presentation.

Notes: The 2nd bullet suggests that recreational bottom gears merit testing, which implies that the closed areas are being closed to sport gear and that the recreational fishing sector wants to show that they do not impact the bottom in the same way as commercial trawlers. I don't know if this is the case or not; or is it a suggestion that the organizations which speak for

sport fishermen should get involved with the design of commercial gear? The procedure needs to be clear that recreational gear cannot be used as a proxy for commercial gear in scientific studies if it differs in design, implementation, and impact on the seafloor, nor can the results of such experiments be transferred to commercial gear types. Without more information on the conditions of the closure it is difficult to comment on this inclusion, but it should be reconsidered as above and the broader context discussed in the Context section as noted earlier.

What is the rationale behind the clause “from which the vessel in the calendar year previous to the date of application has performed at least 60 days of fishing activity at sea”. How does this apply to recreational fishing vessels?

#### *Comments on the Procedures Section*

Provide clarification on the statement that “the main focus of the experiments should be the bottom impact, even though other ecosystem impacts of the gear should always be addressed as well.” What are these other ecosystem impacts that should always be addressed? Applicants should be given some guidance on this, especially as it is a Selection Criterion which contradicts the statement that they are somehow secondary.

#### *Selection Committee*

The use of a Selection Committee, composed of a Science Committee alongside a Stakeholder Committee (MSP Working Group), is very sensible - probably essential. Applications need to be judged on their scientific merits but also on their relevance to management issues, and the twin committees are the way to do that.

The current draft allows an option for "external (foreign) experts" but does not require independence of the committee from the applicants. It may not be possible, within the Belgian context, to maintain proper national control and yet avoid close ties between applicants and the committee. However, I would recommend that they (1) think about ways to strengthen the committee's independence and (2) require that the chosen ways be implemented. It may be that an external expert is a compulsory position on the committee to mitigate against such conflicts. In all cases conflict of interest guidelines need to be established and likely confidentiality agreements will need to be constructed for all who handle the applications, given the potential for economic benefits from successful gear modifications.

#### *Process*

I don't think that a 3-4 month approval process should be called "short" in the context of the funding and planning cycles of the applicants, but it is likely as short as can be achieved. In my view the timeline needs much more serious consideration. I recommend that there be a pre-proposal step two-three months prior to the application deadline, to gauge the number of applicants and the nature of their experiments in order to establish the appropriate reviewers in advance, including foreign experts. This should at a minimum identify all participants (to avoid conflicts of interest on review committees), identify the type of gear modification to be experimented with and its trial history (to screen out gears not likely to show significant benefits), the area, the basic experimental design (can be ticked if needed: e.g., BACI, full factorial, nested, other), and the hypothesis to be tested. The timeline can then be achieved by using such a pre-proposal stage to select committee members and reviewers, using website tools to eliminate incomplete applications, combining review streams to occur simultaneously and in dialogue with one another, and eliminate proposals prior to submission to the Selection Committee that fail to meet scientific criteria or other deficiencies in application content.

Notes: FPS Environment (paid to do the job and able to schedule its response to a call for applications) gets a week to send out paperwork and this might be considerably shortened as there likely will not be large numbers of applications. The applications are then processed sequentially through the Science and Stakeholder committees and I wonder if they should not be reviewed together. The scientists may not have the technical expertise to evaluate the feasibility of the experimental design and this could cause unnecessary delays. Little time is allowed for the applicants to provide answers to any questions or requests for additional information as noted in the General Rules section. There's a need to identify and select foreign experts, followed by a mail out and that can't be done until the applications are seen. Allowing time for said experts to respond to invitations to

review will drag things out – a pre-proposal step could help with this. It can take journals months to get reviewers to agree to review scientific papers, and that should be factored in. Payment for review should be considered (the UK JNCC does this, for example).

A possible revised process, planned with meeting timelines and participants in place, could be:

- Week –10, Pre-proposal submission: FPS forwards content to Selection Committee who confirms participants on Scientific Committee and MSP Working Group. Committees identify and secure additional reviewers.
- Opening: Applications received by FPS Environment (once a year, following a call for proposals).
- Week 1: Incomplete applications will be screened out (web site can be developed that would not allow an application to be submitted if it is missing any parts). Application will be forwarded from FPS Environment to Scientific Committee and MSP Working Group.
- Weeks 2–6: The Scientific Committee and MSP Working Group each subjects the applications to an internal evaluation and eliminates proposals that do not meet the general requirements. Proposals screened in are subject to review, including from foreign experts, and further information from applicants is solicited if necessary. Cross-cutting issues are discussed between committees. Applications failing science requirements after review are eliminated and written explanation provided. Recommendations for prioritizing applications with similar gears/areas are provided.
- Week 7: Joint recommendations from the Scientific Committee and MSP Working Group are forwarded to the Selection Committee.
- Weeks 8–9 : Review of committee reports and recommendations. Writing of the final advice by the Selection Committee (face-to-face meeting required), including feedback to applicants.
- Weeks 10–11: Ruling by FPS Environment.

The results of the evaluation, including final advice of the selection committee, will be publicly available 4 months after receiving the request for authorization. This should only include successful applicants. You will need to confirm with reviewers that they are willing to be named and that their reviews will be made public. The process anticipates similar applications coming forward for the same or similar gears/areas. How these applications will be ranked should be made clear to the applicants and to the Scientific Committee and MSP Working Group *a priori*. Some organizations require such applicants to work together and prepare a combined proposal. This would be apparent if a pre-proposal stage is implemented. At that point, potential conflicts could be identified and guidance given to future applicants. Also, the eligibility criteria state that the expected positive effect on seafloor integrity has to be significant – this could be evaluated at the pre-proposal stage and save both reviewers and applicants' time.

It is important to consider whether the Procedures are making the approval process so rigorous that no proposals are made or none approved. There can be locally specific problems if, e.g., the available funding sources will not provide money unless access to a research area is confirmed, yet applications for access will not be considered unless the applicant can show funding. There is a need to walk through the proposed process with some potential applicants and see whether there are unexpected issues.

#### *Comments on the Eligibility Criteria Section*

Notes: The required duration and area should not only be defined clearly but well-justified. What is the maximum timeline for experiments? Should this not be defined? If the experiments want to evaluate recovery then it will be necessary to keep the area undisturbed for a length of time – is that possible?

The applicant has to agree to public dissemination of the project to be eligible. That should be part of the terms and conditions of approval and expressed legally, not just as a criterion.

Earlier in the document (Potential Beneficiaries) it states: “Ship owners and fishing ship owners, regardless nationality, from which the vessel in the calendar year previous to the date of application has performed at least 60 days of fishing activity at sea;”. Is this not an eligibility requirement? How do recreational fishermen fit into this? Should there be specifics here on

holding fishing licences of one type or another? Should there be a minimum requirement to have a scientist involved on the team (this could then be defined as someone with X credentials). It comes under Selection but should be under Eligibility.

#### *Comments on the Selection Criteria Section*

This is the first time that socio-economic potential is flagged. This should be discussed and explained earlier so that applicants can understand this better. Who will do this and how will it be evaluated? From other parts of the document the application can be rejected by procedural issues (failure to provide adequate information), by expectations that the gear modifications are not sufficient to reduce seafloor integrity impacts relative to traditional gear (authorization can only be given if it concerns testing of alternative seafloor-disturbing fishing techniques, i.e. techniques with a lower impact on the seafloor than the classic trawlers), and by inadequate experimental design to prove the effects (which must be substantial). I would think that these factors should be dominant in the selection criteria, but it is good that the additional points of funding sources and expertise are highlighted. Should technical expertise not also be included here (and with scientific expertise moved to eligibility?).

Should gear tests be a prerequisite to show that they fish as intended? Given the exceptional status of the authorization, I would think that only gears likely to produce the desired outcome should be trialed and that some history of using the gear should be demonstrated. These areas should not be used if the gear has never been in the water before!

Testing the benefits of alternative gears usually requires testing them against standard beam trawls, when both are worked across the same bottoms. There may be something to learn from testing the alternative gears on benthos-rich bottoms, without comparative data from beam trawls, but that form of research seems likely to be very limited. How will this constrain experiments? Given the need for comparative trials of the alternative gears relative to beam trawls, I think that there could be an extra "selection criterion" requiring (a) that such trials have been run in areas open to beam trawling and (b) that the experimental gear has been shown to be an effective way of harvesting fish that shows promise of having less impact on the seafloor. Perhaps there should be an alternative criterion to be met by those studies which do not seek gears for harvesting soles, which might be a requirement to show that the proposed target resource exists in exploitable quantities. Part of this selection process should be to ensure that there is a valid requirement to perform the tests in the areas.

#### *Comments on the Content of the Application Form Section*

I would also suggest requiring the names of PIs, the names of funding agencies and the amounts of funding sought/received, names of any co-applicants (e.g. the fishing companies that will provide the boats), etc. (some of that is in the list of points for an application, though not mentioned in the criteria.). There should be a standard form for the CVs of the various participants and there should be a section outlining Risks that could prevent the experiments from being conducted as planned.

The criteria should include a requirement to specify the design of the alternative gear, an explanation of how it is expected to perform better with respect to seafloor integrity, and a history of gear trials preceding the experiment. That may have been so obvious that it was forgotten but it won't be obvious to all applicants. (It is in the list of requirements for applications.) The criteria should also include a demand for a specified experimental design, and include justification for conducting the experiment in a closed area. It may be necessary to justify which closed area (2 and/or 4) has been selected, particularly if later it has to be decided how to deal with requests for the same area at the same or conflicting time. Many gear impacts, such as physical contact with the seafloor, do not need a closed area to evaluate so this needs to be justified.

There is no mention of the socio-economic potential here and if it is a requirement it should have its own section in the form.

#### *General Comments*

What happens to the commercial catch during such experiments? Are they allowed to sell the fish? Can the sale of the fish be used to fund the project? This needs to be specified.

Statistical significance vs. biological relevance issues need to be considered by the Selection Committee. The need for substantial change is mentioned but perhaps this should be defined. Should there be an expectation that the reduction in the impact on the seafloor is greater than 50%? What would be acceptable? This is a political/social question if it is not linked to a biological response. There is a need to distinguish between statistically significant differences and biological relevance. While the first is necessary, the second may not follow.

### Reviewer 3

#### *Review of Belgian draft procedure for benthic impact gear test in Fisheries Zones 2 and 4*

The purpose of this document is to provide an independent review of a Belgian draft procedure to grant specific authorization to allow scientific testing of bottom impacting gear in two fisheries management zones.

The purpose of the Belgian procedure is stated in the ICES Request form as “Belgium is drafting procedural steps that have to be followed when one wants to make use of the exception to enter two fisheries management zones exceptionally. Authorization can only be given if it concerns testing of alternative seafloor-disturbing fishing techniques, i.e. techniques with a lower impact on the seafloor than the classic trawlers. A selection committee, including a committee of Belgian scientists, screens the ‘alternative’ fishing gears (to classical trawls) that are proposed in incoming applications. The procedure describes the goal, the eligibility criteria, the general selection criteria, the possible beneficiaries, the eligible projects and the expected content of incoming project proposals (i.e., an application form). Any party wishing to perform testing of alternative fishing techniques within these zones will be required to follow the procedures.”

General comment throughout the proposal: all acronyms should be defined on first usage (e.g. MSFD, MSP, FPS).

#### *Context*

The procedure is designed to evaluate applications for tests of methodology that reducing seafloor disturbance by trawling. This is allowed by exception in 2 of 5 proposed fisheries management zones which have been delineated to reduce the impact of fishing on seafloor integrity. In these two zones, only non-impacting and alternative less-impacting gear is allowed. The procedure is not to evaluate the impacts of the proposed research in the proposal, but to evaluate procedures to authorize proposals to go forward with the proposed research. In effect, these procedures should facilitate testing of low impact benthic fishing methods, rather than prevent the use of any mobile fishing gear in these conservation zones.

The Context section of this procedure should present this background and specifically clarify that this is to allow (if I interpret correctly) the trialling of different low impact methods in the conservation zones. Rather than as current where this section details procedures during *ad hoc* groups and development of this procedure, the “Context” or Executive summary should include content that describes the intent and purpose of the draft procedures as I have summarized above.

#### *Zones 2 and 4*

This section needs an accurate map, with each zone delineated accurately with respect to national boundaries/EEZs and latitude/longitude marked accurately on the map. Also, a table should specify (potentially all 5 zones) what uses are allowed, i.e. what is the difference between zones 2 and 4 – is it solely a difference in conservation status/disturbances allowed, or do these represent different and potentially thus more sensitive habitats that would require different assessment of measures?

Scientific testing of impacts is guaranteed – what does this mean? If I interpret correctly, this is clarifying that this procedure is to provide a process for which an expert assessment will determine if a proposed scientific testing of fishing methods is likely to have minimal impact, and the further scientific testing will occur following the authorization of the proposal. But scientific testing does not necessarily result in a successful method at reducing impacts, or importantly a method that is economically justified for reducing benthic impacts. The involvement of those who will actually use the new method to determine if it is cost-effective should thus be an important part of the assessment. Presumably in the authorization stage, the proposal writers

should be able to justify that their sampling design is of sufficient power to determine if the tested methodology does in fact result in reduced seafloor impacts. The procedure should then clarify which indicators of seafloor impacts should be evaluated, such that the proposal can be assessed as to whether appropriate data will be collected to adequately test whether the new methods are successful. Furthermore, clear guidelines for each indicator should declare the threshold that is appropriate for defining a “success”; for example is a 10% or 20% or 50% reduction in impacts a sufficient threshold? Note that this is different from statistical significance – a very small change in impacts could be statistically significant, while not resulting in any “real” benefit to seafloor integrity, while at potentially large cost to industry to implement new methods. Finally, timeframes for indicators should be implied within the procedure. As benthic communities typically slowly recover from disturbance, some indication of anticipated timeframe of recovery or lesser impacts should be pre-defined within the scope of the research/funding that will allow adequate time for reduction in impacts to be assessed. Alternatively, if based on the scope of the funding, only one-off surveys will occur (i.e. new methods deployed and only immediate seafloor impacts are measured); this should be clearly stated in the proposal to better define the scope of work desired/allowed within these conservation zones.

### *General Rules*

A clear process should be identified for a mid-project assessment to allow discontinuation of the research should larger impacts be occurring. The “authorization criteria” is referred to, but not defined as to what entails the potential for permission/authorization to be withdrawn. Is this solely the occurrence of negative impacts, or could this be only that not high enough benefits to seafloor integrity are being realised?

The anticipated timelines for such proposals should be provided, i.e. 1 year only, up to 5 years of research, etc. That then provides timing of when a mid-term evaluation and potential withdrawal of authorization might occur.

### *Possible Beneficiaries*

It is unclear why this section is needed. Is this to point out possible conflicts of interest in those that might apply for the funding, or potential benefits of identifying new low-impact gear (and if so, the broader public is also a beneficiary, as well as biodiversity/ecosystems themselves).

Furthermore, if only Belgian scientists sit on the scientific committee that provisionally evaluates all proposals, there is high likelihood of conflict of interest, and lack of clarity whether a “level playing field” exists as to whether all submissions are assessed on equal grounds. Rather, external assessment by non-EU or non-Belgian scientists would be more appropriate, provided the scientific committee assesses only general suitability and completeness of applications.

### *Procedure*

As above, the “conditions of guaranteed scientific testing” are unclear. Obviously the proposal is for scientific testing of a new method – but further detail is required in terms of the indicators and thresholds that are required to be achieved in order to define this as successful. Particularly, the Procedure section paragraph 4 states that “The determination of whether the testing activity indeed has reduced impact on the seafloor will be the result of the experiments effectively carried out.” This is likely to be untrue. Just because experiments are done according to plan, this does not necessarily mean that the new fishing method will be effective or successful at reducing impacts.

The timeline seems quite fast, unless a scientific or expert committee has been previously lined up with strict timeline for reviews. It is unclear how often either the scientific committee or the selection committee meet, and how much overlap there is between these two groups. Likely these groups do not meet more than monthly, so timelines of proposal deadlines would need to be clearly linked to timelines of these committee meetings in order to meet the deadlines for review and granting of authorization. It appears that this is set up for an annual authorization request for proposals, and if so, this could easily be set up in advance, with experts pre-agreed based on anticipated dates of submission of proposals. Possibly twice annually might be more appropriate to allow for use of these zones by new funding mechanisms or newly identified methodologies, rather

than annual delays. Also, it is unclear whether proposals are evaluated individually, or cumulatively (i.e. if multiple proposals were authorized, there is potential for overlapping or cumulative impacts that would be greater than that identified for one proposal alone). As such, it should be clear how many proposals are anticipated to be accepted for testing of methods within conservation zones 2 and 4, and the expert evaluation committee should preferably include the same experts for evaluation of all proposals in each annual round.

#### *Eligibility Criteria*

As previously, appropriate levels of significance and which indicators are being measured should be predefined in the procedure. For example, a range of indicators could be used, some of which would be less sensitive to impacts, and more likely to show positive effects of new methodologies that could be misleading. Typically metrics should include both biological and physical indicators – sediment grainsize/disturbance/turbidity, benthic community – both multivariate (changes in community structure) and univariate (i.e. species richness or number of individuals) methods, as univariate methods on their own often fail to pick up changes in community structure when for example, opportunistic species increase following seafloor disturbance, whereas more sensitive species may respond less favourably. The indicators should be specific enough to allow adequate assessment of the success of the trialled gear on the seafloor.

It is unclear whether only Belgian institutes or if international providers (solely EU or fully international) are eligible to submit proposals. This should be clearly stated.

#### *Selection Criteria*

Socio-economic potential needs adequate detailing of what is meant. I would anticipate that any such proposal would have had enough vetting by industry or others familiar with fishing practices to understand whether it had potential to be cost-effective.

The terms relevant and realistic are not defined – rather stick with consistency of indicators and defined thresholds of effects, for example “a significant decline in impact of at least X%”.

Timing and used zones – again, a map is required both in the procedures and by the applicants. This should allow adequate analysis of cumulative effects and overlap between multiple proposals that is required to assess impacts.

It is unclear to me what the “control” for any such test would be. Presumably the new method is being tested against “classic” methods, but as such the classic methods should be defined (i.e. by a picture of a trawl device in the procedure), or otherwise clarified as a suite of potential gear types. However, the classic methods are not allowed in zones 2 and 4, so the experimental design thus requires testing in multiple zones, and clear procedures to address differences in habitat/seafloor properties and communities that might influence the analysis of whether or not new methods are successful.

Communication strategy: to whom? Is this solely the availability of reporting results and data on appropriate online sites as defined later? Or is a larger public communication strategy required to be successful at gaining authorization? As public outreach can be expensive, some guidelines of what is expected should be provided.

#### *Content of the application form*

Form section 7 – relevant expertise of other project partners. If it is assumed that the fisheries sector will be directly linked, i.e. through assessment of economic and logistical constraints associated with new gear, this should be further specified as an implementation pathway should the fisheries sector not be directly included in the proposal and testing of gear.

*Summary of key concerns:*

The procedure needs clarification of which indicators will be used to assess new methodology, and defining of thresholds of success.

The identification of appropriate control sites for use of “classic trawl” methodology and what defines “classic trawl” methodology is also an important part of the analysis of whether a new method tested in zones 2 and 4 is determined to be successful at reducing impacts. The procedure should clearly identify what the classic method(s) entail, and the procedure should provide guidance on how new and classic methods will be tested alongside each other, as classic methods are clearly prohibited in the zones 2 and 4.

Criteria for the socio-economic benefit should be further detailed within the procedure, i.e. an analysis by fishers of whether the method is cost-effective and logistically suitable.

Ideally, involvement of fishers or others familiar with gear should be suggested within the procedure.

The evaluation of cumulative or overlapping impacts of multiple authorized proposals should be provided within the procedure.

**Annex 1**

*Draft Procedure zone 2 and 4 (version: Draft 3 – 16/09/2016, see Annex 1)*



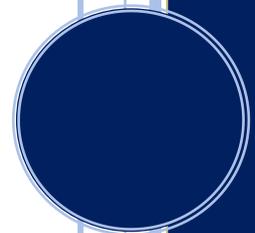
# DRAFT PROCEDURE ZONES 2 AND 4

Draft proposal for procedure

Draft for a procedure to make use of the exception to enter zones 2 and 4 to test alternative seabed-disturbing fishing techniques, i.e. techniques with a lower impact on the seabed than the classic beam trawlers. The procedure aims to provide the framework to give users authorization to enter conservation zones with alternative impacting mobile fishing gear under the condition that scientific testing is guaranteed.

*Belgian Draft*

9/16/2016



# Draft Procedure zones 2 and 4

## *Draft proposal for procedure*

### CONTEXT

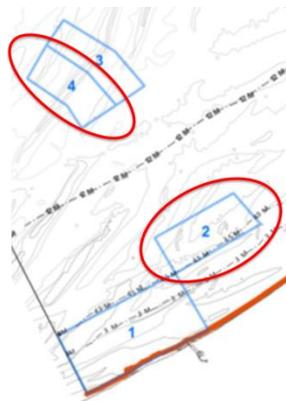
Belgium is in the process of taking Fisheries Measures within the framework of MSFD and applies therefore the procedures as described in the Common Fisheries Policy (CFP). For 2 of the 5 proposed zones, exceptional use of seabed impacting fishing gear is possible under conditions.

The CFP-process is being followed within the *Ad Hoc Working Group* under the North Sea Fish-ENVI technical expert group of the *Scheveningen Group*. Within the Ad Hoc Group (during the period September 2016 –January 2017) Belgium is discussing the fisheries measures (CFP-process) on the one hand and the procedure of zones 2 and 4 on the other hand.

For the latter, the draft procedure is being discussed within the Ad Hoc Group (meetings 5/7/2016 and 6/9/2016). The members of the Ad Hoc Group also decided to request for an ICES review before final adoption of the procedure.

### ZONES 2 AND 4

It concerns a procedure for 2 zones of 5 proposed fisheries management zones that have been delineated to reduce the fisheries' impact on the seafloor integrity. The purpose of the measures is to reduce seabed impacting fishing techniques and hence increase seafloor integrity. The two concerned zones are called zones 2 and 4 and are both zones where non-impacting and alternative less-impacting gear is allowed. The latter is an exception and can only be allowed for if scientific testing of impacts is guaranteed for which a specific authorization is required. The procedure to obtain such an authorization is proposed in the present document.



### GENERAL RULES

- The project cannot be started before permission is granted;
- End of project (*i.e.* final reporting) must be finalized before formal MSP renewal;
- An application (including project specificities) has to be submitted to FPS Environment;

- By applying, the applicant agrees for full cooperation, and will provide answers to any questions or requests for additional information;
- The permission granted for the use of the area can be withdrawn when the applicant does not longer comply with the authorization criteria;
- Data of the project have to become publicly available (the latest 5 years after the project);
- Annual reporting and mid-term evaluation is mandatory. The results of the final report have to be made publicly available 1 year after the end of the project.

## POSSIBLE BENEFICIARIES

- Ship owners and fishing ship owners, regardless nationality, from which the vessel in the calendar year previous to the date of application has performed at least 60 days of fishing activity at sea;
- Recreational fishermen/organizations, regardless nationality;
- Research institutes (national/abroad);
- Manufacturers, producers and trade organizations;
- National, regional or local governments and administrations.

## PROCEDURE

The procedure makes it possible for users to make use of the exception of no entry with bottom impacting fishing gear (through a 'request for authorization' which is an application). The procedure will further check whether conditions of guaranteed scientific testing are fulfilled prior to the delivery of authorization.

In other words, the procedure describes how to make use of the exception to enter the zones to *test* alternative seabed-disturbing fishing techniques, *i.e.* techniques with a lower impact on the seabed than the classic trawlers. Any party wishing to perform testing activities in these zones will have to follow the procedure.

Any application will be presented to a **selection committee** which will provide advice upon whether the proposed experiment with alternative gear will be authorized. This **selection committee** is composed by the scientific committee (OD Nature and ILVO) and is complemented with a national MSP Working Group (including all sectors). The selection committee can decide to involve external (foreign) experts. They will provide advice on any application based on scientific insights and send this advice to the Federal Policy Service (FPS) Environment (that takes the final decision).

The determination whether the testing activity indeed has reduced impact on the seabed will be the result of the experiments effectively carried out. As the zones are zones for increasing seafloor integrity, the main focus of the experiments should be the bottom impact, even though other ecosystem impacts of the gear should always be addressed as well.

The procedure has to be efficient and short (3-4 months to produce authorization). The **process** is as follows:

- Opening: application received by FPS Environment (once a year, following a call for proposals);
- Week 1: application will be forwarded from FPS Environment to scientific committee;

- Week 2-3: the scientific committee subjects the application to a brief internal evaluation, requests advice from (foreign) experts and forwards the application to the MSP Working Group;
- Week 4-7: advice from MSP Working Group;
- Week 8-9 : writing of the final advice by the **selection committee**;
- Week 10: ruling by FPS Environment.

The results of the evaluation, including final advice of the selection committee, will be publicly available 4 months after receiving the request for authorization.

The request for authorization can come from all national and international users and should be done through a standard application form (*cf infra.*).

The request for authorization (application) can be done once a year, following a call for proposals by FPS Environment. In case the same gear and/or zones are included in different applications, the selection committee will produce a clear advice on how to proceed. Generally, any project has to be innovative, builds on existing scientific knowledge and the experiment has to be set up in such a way that reliable scientific results will be produced. All proposals will be checked according to (1) the compliance with the eligibility criteria and to (2) the scoring of specific selection criteria.

## ELIGIBILITY CRITERIA

- The application should concern research, in project format, focused on the development of alternative seabed-impacting fishing techniques that are aiming at decreasing the impact on seabed habitats;
- The expected positive effect on seabed integrity has to be significant;
- The required duration and area(zone and specific location within the zone) have to be defined clearly;
- The applicant, supported by the scientific or technical experts, has to make the results of the project publicly available;

## SELECTION CRITERIA

- The applicant has proven scientific expertise needed to carry out the project;
- The project shows sufficient socio-economic potential;
- The expected results are expected to be relevant and realistic;
- Other ecosystem impacts –besides impact on the seafloor- have to be addressed (*i.e.* other ecosystem impact has to be lower or at least equal to existing classical fishing gears);
- Timing and used zones;
- Communication strategy;
- Availability of resources to do the research;

## ICES REVIEW

The procedure for authorization for testing has been discussed within the Ad Hoc Group of the FISH-ENVI Technical Expert Group of the Scheveningen Cooperation and will be reviewed by ICES in terms of scientific and regulating principles to allow for authorization (*i.e.* review of the procedure). The review has been requested by Belgium; the procedure to review will be submitted 16 September 2016 and the final

review by ICES is expected 18 November 2016. Based on this review, the final version of the procedure will be discussed within the framework of the Ad Hoc Group.

## CONTENT OF THE APPLICATION FORM

1. Administrative details;
2. Null hypothesis;
3. Detailed description of the tested technique/technology;
4. Methodology (with a justification of duration and impacted area of the project);
5. Description of how results can easily be implemented (*i.e.* how relevant and realistic is the use of the alternative gear?);
6. Relevant expertise of associated scientist;
7. Relevant expertise of other project partners (with indication how results will be linked to fisheries sector);
8. Expected results;
9. Data management (including timing of making data publicly available);
10. Project time schedule;
11. Communication plan;
12. Budget and origin of resources.