

Lead in outdoor shooting and fishing
Response to comments on the SEAC draft opinion
on an Annex XV dossier proposing restrictions on
lead and its compounds

2 December 2022

LEAD IN OUTDOOR SHOOTING AND FISHING
RESPONSE TO COMMENTS ON THE SEAC DRAFT OPINION

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1. Specific information requests

In addition to providing an opportunity for interested parties to submit general comments on the draft opinion of ECHA's Committee for Socio-Economic Analysis (SEAC), the SEAC rapporteurs specified a series of information requests to gather information on topics considered to be particularly relevant to the evaluation of the restriction proposal. These specific information requests were published in the information note accompanying the SEAC draft opinion on ECHA's website¹ and covered the following topics:

Related to **hunting**:

1. Transition period of the ban on use of lead gunshot in hunting
2. Labelling of individual bullets and gunshot cartridges
3. Impacts on the use of historic guns in hunting
4. Impacts of the proposed restriction on the use of air gun/rifle pellets

Related to **sports shooting**:

5. Suitability of steel gunshot in clay target shooting
6. Switching between using steel and lead gunshot for sports shooting
7. Lead gunshot recovery with more than 90% effectiveness

Related to **fishing**:

8. Availability and performance of alternative split shot sinkers < 0.06 g
9. Labelling of sinkers > 50 g

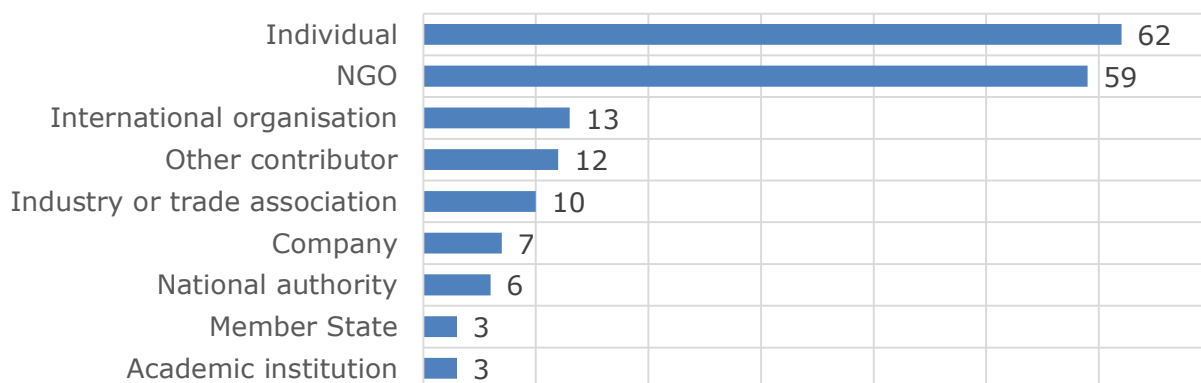
2. Overview of comments received

A total of 175 comments were received in the consultation on the SEAC draft opinion. The majority of respondents identified themselves as individuals (62) or NGOs (59) – see Figure 1. Comments were received from respondents in 32 countries, with 10 or more comments received from respondents in Sweden (36), Germany (17), Finland (17), United Kingdom (13), Belgium (12) and France (10) – see Figure 2. Nearly all (about 90%) of the respondents commented on aspects related to sports shooting, about three-quarters commented on hunting-related aspects, and about one-quarter on fishing-related aspects.

¹ See 'SEAC DO Info note' at <https://echa.europa.eu/registry-of-restriction-intentions/-/dislist/details/0b0236e1840159e6> (accessed on 06/10/2022)

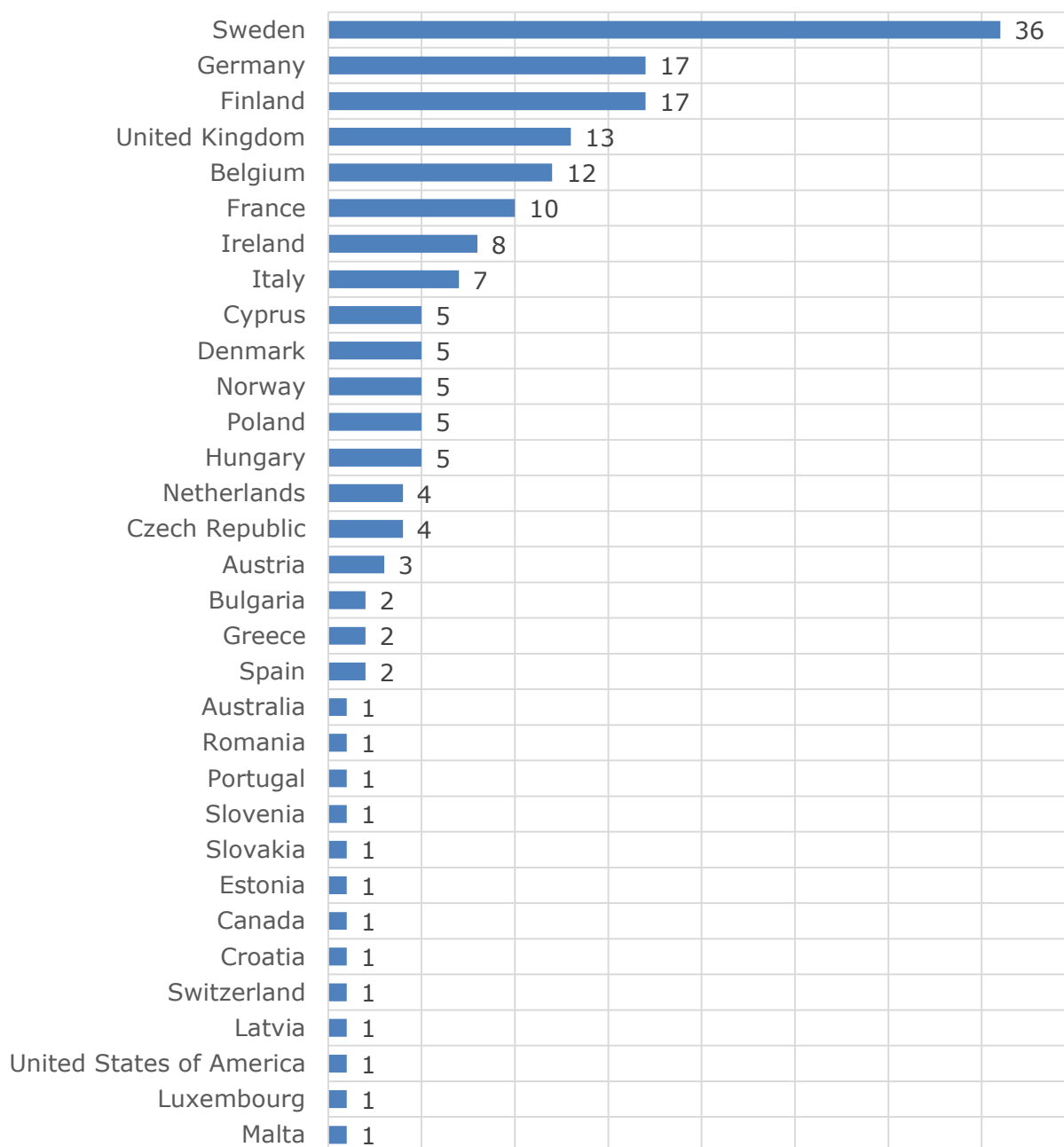
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Figure 1: Number of comments received by respondent type



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Figure 2: Number of comments received by country



3. SEAC rapporteurs' responses

The SEAC rapporteurs would like to thank the many interested parties that contributed to the consultation on the SEAC draft opinion.

The SEAC rapporteurs note that many of the comments received were similar in nature and concerned common topics. Given the large number of comments received, and to improve the clarity of the responses, the SEAC rapporteurs prepared general responses to these common topics. The rapporteurs used the topics covered by the specific information requests (see section 1 above) as a starting point for their responses and complemented these with other relevant topics raised in the consultation. The general responses summarise the nature of the comments received and how the SEAC rapporteurs responded to them, e.g. by amending or complementing the SEAC opinion where considered justified and necessary.

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To assist interested parties in understanding how their comments were assessed, the general responses include indicative lists of comment numbers that are associated with a specific topic. These lists are not meant to be exhaustive. Nevertheless, it should be understood that the SEAC rapporteurs considered all of the comments received in the consultation when preparing the general responses.

In one case, the SEAC rapporteurs responded to comments by revising the wording of the 'conditions of the restriction' (i.e. the wording of the restriction as proposed by SEAC in section 1.2 of the opinion). Respondents should note that the wording of the conditions of the restriction in the SEAC opinion is intended to express the intention of SEAC. The European Commission will ultimately decide on the precise legal wording used to update Annex XVII of REACH if a restriction was adopted.

The SEAC rapporteurs considered also comments that included only confidential information. However, no specific reference to confidential information can be made in the non-confidential responses.

3.1. Hunting

3.1.1. Specific information requests

3.1.1.1. Transition period of the ban on use of lead gunshot in hunting

Summary of comments received

The comments were divided in supporting and opposing a shorter transition period of the ban on use of lead gunshot for hunting.

The main arguments brought forward against a shorter transition period were:

- Steel shot is currently mainly sourced outside the EU, especially from China, which complicates stepping up production due to time needed to seek new suppliers. Furthermore, the risk of dependency on China was raised as a geopolitical argument and more time would be needed to build up steel shot production in the EU (e.g. #1077, #1087, #1106, #1117).
- Major investments and changes of production are needed because assembly lines for steel and lead gunshot are not equivalent (e.g. #1077, #1106, #1134), which would be difficult to handle for small manufacturers (e.g. #1059).
- The large number of guns in use that are not steel-proofed and limited access to hunters in some Member States to proofing capacities (e.g. #1046, #1048, #1068, #1089, #1091, #1092, #1114, #1129, #1139).

Based on these arguments, an even longer transition period than five years, i.e. eight to ten years, was requested by stakeholders.

On the other hand, many comments were in support of a short transition period (e.g. #1032, #1033, #1034, #1042, #1043, #1044, #1052, #1055, #1067, #1069, #1072, #1076, #1078, #1083, #1102, #1104, #1105, #1112, #1113, #1121, #1127, #1133, #1137, #1151, #1152, #1154, #1155, #1158, #1160), mainly pointing to the environmental and human health impacts as well as the wide supply of alternatives.

Information was provided on the current supply of alternatives indicating that already now

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more than 20% of products on the market were lead-free (#1071)². It was also raised that apart from regulatory drivers, like the ban of lead gunshot in wetlands, increasing consumer demand for lead-free game meat is raising the market demand for steel gunshot (e.g. #1066, #1083).

SEAC rapporteurs' response

The SEAC rapporteurs note that comments mainly included statements either in favour or against a short transition period. However, the level of new information provided to support a conclusion on the impacts of a particular period was very limited (see discussion in SEAC opinion).

3.1.1.2. Labelling of individual bullets and gunshot cartridges

Summary of comments received

Many comments stated that it is technically difficult or impossible to label individual bullets and shotgun cartridges (e.g. #1008, #1077, #1087, #1098, #1106). It was also raised that labelling would not be possible for home-made ammunition (e.g. #1005). The SEAC rapporteurs had the impression that the specific request for information was partly misunderstood as some of the comments were focussing on a label including a substantial amount of text (as proposed by the Dossier Submitter for shotgun cartridges as part of the optional derogation for sports shooting) and not simple signs or markings such as 'Pb'.

Colour-coding was identified as a means that could be technically feasible (e.g. #1098, #1106); however, the implementation could be difficult due to potential conflicts with existing colour-coding schemes, e.g. by military organisations such as NATO (e.g. #1077, #1128, #1134, #1142).

Furthermore, there were a lot of comments generally supporting individual labelling, e.g. in terms of colour coding or marking, of bullets stating that it would facilitate enforcement and would help to raise awareness among hunters (e.g. #1032, #1043, #1069, #1083, #1120, #1127, #1151) without providing specific information on technical feasibility.

It was also suggested that there could be other low-cost means to support enforcement such as portable lead test kits that could be used for field inspections (#1037).

SEAC rapporteurs' response

Overall, the comments received did not provide sufficient evidence to conclude on the technical and economic feasibility of means to label individual bullets or shotgun cartridges (see discussion in SEAC opinion).

3.1.1.3. Impacts on the use of historic guns in hunting

Summary of comments received

Many comments stated that there are no alternatives to lead for the use in historic firearms, without providing more detailed technical information on this issue (e.g. #993, #1008, #1162). In the comments received, there was no common understanding of the term 'historic

² The relevant information was submitted in comment #1071 as confidential attachment but has in the meantime become publicly available: All-Party Parliamentary Group on Lead Ammunition (2022), Alternatives to lead shot: Assessing supply and demand, report researched by Wildlife & Countryside Link and Wildfowl & Wetlands Trust, available at: <https://leadammunitionappg.org/wp-content/uploads/2022/09/Alternatives-to-lead-shot-Assessing-supply-and-demand.pdf> (accessed 7 November 2022)

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firearms'. However, most of them focussed on muzzle-loading and breech-loading guns. Some comments included proposals for a definition of 'historic firearms', mainly covering guns designed before circa 1900 and their reproductions (e.g. #1041).

In contrast, some comments indicated that bismuth could be used as an alternative and that steel shot could be developed as an alternative for historic firearms (e.g. #1066).

In few comments, more detailed information was provided on the scope of current use of lead in historic firearms and the technical feasibility of alternatives requesting a transition period of five years followed by a review of the feasibility of alternatives (e.g. #1041, #1161).

SEAC rapporteurs' response

The SEAC rapporteurs note that insufficient specific information was provided to conclude on the technical feasibility and development of alternatives. Further discussion of this issue can be found in the SEAC opinion.

3.1.1.4. Impacts of the proposed restriction on the use of air gun/rifle pellets

Summary of comments received

The comments received on this issue mainly included statements with hardly any new information provided. It was argued that the restriction will significantly increase costs for hunters and shooters (e.g. #997, #1006) and that hunters are expected to quit using air rifles if a ban was implemented (e.g. #997). There were also concerns about the technical feasibility and the availability of non-lead pellets (e.g. #1004, #1005). The lack of precision of non-lead alternatives was highlighted but this was typically linked to sports shooting (for which, according to the proposed restriction, the use of lead ammunition can continue if the required risk management measures are implemented) rather than hunting.

SEAC rapporteurs' response

As no additional information was provided that would significantly improve the evidence base for SEAC to assess the impacts of the proposed restriction on air rifle/gun pellets, no changes of the opinion were warranted.

3.1.2. Other topics raised

3.1.2.1. Proposed derogation of full metal jacket (FMJ) bullets

Summary of comments received

Several stakeholders requested to include open tip match (OTM) bullets into the derogation of FMJ bullets, because these are very similar, are used in comparable hunting situations, and availability of suitable alternatives is limited (e.g. #1077, #1098, #1106, #1129, #1135, #1146).

SEAC rapporteurs' response

The SEAC rapporteurs note that it actually was the Dossier Submitter's intention to also cover OTM bullets with the proposed derogation. In order to clarify this intention, SEAC modified the corresponding paragraph (4c) of the proposed wording for the restriction entry.

3.1.2.2. Replacement of guns

Summary of comments received

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Numerous comments claim that a substantial number of existing shotguns cannot use steel shot for hunting (e.g. #993, #997, #1006, #1026, #1053, #1059, #1061). So, a ban on the use of lead shot would make such guns obsolete.

In addition, comment #1134 from the Hungarian CIP proof house described in more detail the requirements used for CIP proofing. It was also indicated that not all EU countries in the scope of the restriction are a member of the CIP convention and may not have a proof house (see also section 3.1.1.1 above). This may add to the costs and effort people have to take in order to have their guns reproofed for the use of steel.

It is recognised that this issue is also relevant for sports shooting and the comments on the replacement of guns received are not exclusively related to hunting. However, the main focus of the comments is on hunting.

SEAC rapporteurs' response

The SEAC rapporteurs are of the opinion that this issue has been addressed sufficiently, both in the Background Document and in the SEAC opinion as well as in the response to comments on the Annex XV report, in which similar points were raised.

Based on its evaluation of the available information, SEAC concluded that steel gunshot may be unsuitable for a certain percentage of existing guns, but far less so than claimed in some of the comments. This is already accounted for in the calculations for the economic impact of the proposal, so no further text was added in the opinion on the replacement of guns. However, a paragraph was added to section 3.3.2.1 of the SEAC opinion to describe better the barrier that shooters may meet if they are from a country that is not a member of the CIP convention and still want their gun re-proofed.

3.1.2.3. Suitability of steel gunshot as an alternative for hunting

Summary of comments received

The suitability of steel gunshot as an alternative was addressed by many commenters, either raising doubts about the technical feasibility and safety of using steel gunshot (e.g. #994, #1026, #1053) or confirming that it can be used without any problem, also in non-steel proof or even historic guns (e.g. #1031, #1066, #1107, #1151).

Apart from general views, also some specific aspects were raised:

- Impacts on forestry: For example, #995, #1004, #1008, #1009, #1013, #1014, #1026, #1028 (all from Sweden) argue steel shot that gets embedded into trees will present a problem in the sawmill when such a tree is processed. Upon closer inspection most of these comments refer to hunting. Contrary to this, comment #1039 (from Denmark) calls these concerns exaggerated.
- Risks from ricochets when shooting steel: It was stated that steel pellets would ricochet more strongly and therefore their use would pose a safety risk to shooters (e.g. #993, #1013, #1018).
- Impacts on animal welfare: Some comments argued that ethical killing was not possible when hunting with steel gunshot (e.g. #1014, #1018, #1140).

None of the issues raised were substantiated by scientific evidence.

SEAC rapporteurs' response

With regard to the impact on forestry, earlier information already contained in the Background

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Document (see section D.1.2.1.6 in the Annex to the Background Document) has indicated that problems for industry seem to be limited.

Also, potential risks from ricochet or impacts on killing efficiency are not substantiated by evidence (as discussed in the Background Document).

Therefore, no further additions were made to the SEAC opinion.

3.2. Sports shooting

3.2.1. Specific information requests

3.2.1.1. Suitability of steel gunshot in clay target shooting

Summary of comments received

More than 60 comments were submitted in response to the relevant specific information request representing widely different opinions from individuals, NGOs and several shooting associations from various countries. Some of the responses were however addressing other topics (e.g. related to hunting, necessity to replace guns, rifle shooting), some of which are discussed in other sections of this document.

A relatively small number of comments (e.g. #991, #996, #1004, #1116, #1122) just stated that steel is not usable at all, or that spent lead shot does not pose any risks, without further discussing the performance of steel as an alternative and without providing further information to support the claims made.

A number of national shooting associations, companies and individuals (e.g. #1012, #1059, #1063, #1084, #1092, #1139, #1142) from Germany, Cyprus, Ireland and Hungary argued that, based on their experience or knowledge from practice, the use of steel shot leads to inferior performance (especially at longer distances). Therefore, a ban on lead shot in the EU would put EU athletes at a disadvantage in international competitions. However, specific data on this claimed difference were not included.

The necessity to maintain a level playing field in international competitions was stressed by many commenters (e.g. #1046, #1057, #1063, #1084, #1097, #1134, #1162). Actions by the EU alone would have negative consequences for participation of EU athletes in international competitions.

Two comments from major sports shooting associations (ISSF #1057, FITASC #1073) stated that the use of steel shot does not give acceptable results in clay target shooting. They backed up this claim by data: FITASC by referring to an earlier report entered as comment #3221 in the consultation on the Annex XV report which contains detailed ballistic information; ISSF by including data on gel penetration tests and pictures that showed a reduced ability to break clay targets if steel shot is used. Both also express their scepticism regarding a video source cited by SEAC which was supposed to show that steel shot can effectively be used at longer distances and claim this to be advertising rather than an objective demonstration. Both also referred to the existing international rules that do not allow the use of steel shot.

Comment #1057 (ISSF) also presented data that was claimed to show that the introduction of a ban on lead shot in some countries has caused a dramatic drop in participation in international competitions from those countries.

A large number of comments mention the increased risk of ricochets (e.g. #1014, #1020, #1089, #1092, #1146, #1149, #1162) if steel shot is used. These comments are however

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not always linked to clay target shooting and refer also to other gunshot disciplines not involving the shooting of clay targets (see also section 3.2.2.2 below). Especially in disciplines where steel targets are used, this may present a problem for the shooters (e.g. in silhouette shooting and cowboy action shooting).

On the other side of the spectrum there were various comments (e.g. #1006, #1031, #1042, #1066, #1079, #1083, #1097) by organisations and individuals from countries where lead shot has already been banned for some time and clay target shooting has nevertheless continued. They report very positive experiences. We specifically refer to comment #1079 from a Danish shooter who apparently is still participating in clay target shooting at the highest level and to comment #1083 from the United Kingdom which refers to a publication by the British Association for Shooting & Conservation (BASC) that shows a very high satisfaction of clay target shooters who changed from lead to steel shot.

Additional comments (e.g. #1034, #1072, #1120, #1126, #1133, #1151) claiming that steel shot can be used quite well were received from environmental and animal protection organisations. However, no specific data to back this up were included. Some organisations also state that any differences between lead and steel shot should not be used as an argument to continue the use of lead shot.

SEAC rapporteurs' response

Because opinions and perceptions about the accuracy of steel shot in clay target shooting appear to differ so widely, SEAC sought advice of an independent ballistics expert to support the interpretation of the evidence on whether steel shot would be suitable to replace lead shot. The report resulting from that action will be appended to the Background Document. A summary of the main conclusions that were drawn by SEAC from the comments (notably #1057, #1073) and the report of the ballistics expert have been included in section 3.3.2.1 of the SEAC opinion.

Although the results allow to differentiate the arguments pro and contra the use of steel shot better than before, SEAC did not see a reason to change its final conclusion on this matter.

The SEAC rapporteurs took note of the data provided by ISSF in comment #1057 related to participation in international competitions. In the interpretation of the rapporteurs the data show indeed a low participation from some countries, but do not show that this was directly caused by the ban because the timeline linking the two aspects is not clear.

3.2.1.2. Switching between using steel and lead gunshot for sports shooting

Summary of comments received

This issue was addressed with a specific information request, because it may be a consequence for top level gunshot shooters if the optional conditional derogation for sports shooting with gunshot (see RO3 and RO4 of the proposed restriction for sports shooting with gunshot) would be implemented. More than 60 comments were received in response to the specific information request.

Unfortunately, many comments did not really address the question asked but gave input on the use of steel in general, mixed this issue up with the use of non-lead ammunition in rifles, or the issue of ricochet. Some of those comments are further discussed in other sections of this document.

A number of comments (e.g. #996, #1000, #1002, #1089, #1116) simply stated that steel cannot be used at all and therefore the issue of switching was not considered relevant.

Of those that did address the question as such, most comments stated that in their view the

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barrier to switching between lead and steel shot is high or even insurmountable (e.g. #1012, #1046, #1059, #1063, #1084, #1117, #1122, #1134, #1139, #1149). So regular switching back and forth between lead and steel (depending on the shooting range one uses for training) would complicate matters even more.

Contrary to the above, two commenters that actually made this switch, claim this is smooth and does not need much adjustment time, if any (#1066, #1083). Another commenter (#1146) stated this is a very individual matter, so no general answer can be given.

An additional aspect that was mentioned (#1057) was the fact that some shooters go to great lengths to reduce variability that may negatively influence their performance. In this respect they prefer to use cartridges of the same production batch, in order to reduce sources of variation. A forced change of ammunition from steel to lead and back, will not be considered positively in this respect.

SEAC rapporteurs' response

Unfortunately, the comments did not allow to develop a clear picture on this subject. Consequently, only a short remark regarding the replies received was added to the SEAC opinion in section 3.4.2, but no further changes were made.

3.2.1.3. Lead gunshot recovery with more than 90% effectiveness

Summary of comments received

Implementing risk management measures to ensure an effective recovery of lead of more than 90% is part of the optional conditional derogation discussed under options RO3 and RO4 for gunshot in sports shooting. Around 60 comments were received in response to the relevant specific information request. Although some new information was received the total picture did not become much clearer.

Again, a number of comments (e.g. #997, #1002, #1014, #1164) simply stated there does not exist a problem with lead in terms of risk, so the commenters did not consider this discussion relevant.

Also, some commenters did not address the situation on gunshot shooting ranges, but in a hunting situation (e.g. #1000, #1006, #1094, #1124), for biathlon (e.g. #1050), or for rifle shooting ranges (e.g. #1081, #1149), which does not provide further insights into the question at hand. Also, comments that 90% recovery is already reached for indoor shooting ranges (e.g. #996, #1026) do not give new insights into the practicality of the optional conditional derogation.

Many comments expressed their scepticism about the proposed optional conditional derogation. Some considered this as offering an unnecessary way out for shooting disciplines where alternatives are already available (e.g. #1069), others saw this as potentially much too complicated and costly to be of practical use (e.g. #1004, #1010, #1015).

Many expressed their scepticism if a reliable way of keeping track of spent and recovered lead could be developed and fear an increased administrative load and bureaucracy (e.g. #1024, #1034, #1089, #1106, #1134, #1142). Comment #1106 (AFEMS) would prefer a derogation based on risk management measures, not on recovery percentage, because this would be easier to check.

A few (e.g. #1012, #1059) suggested a pragmatic, low cost, approach to use the number of clay targets used as the basis for an estimation of spent lead, by linking this to the number of cartridges used. Another comment (#1139) suggests using the sales of different cartridge types as basis for calculating the recycling percentage. Comment #1057 suggest leaving the

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calculation of spent lead to a self-check by the shooters and using the number of clay targets as a second level of control.

One commenter (#1001) claimed that at the Swedish range the commenter used, a 90% lead recovery was already reached, but did not indicate which methods were used. Others stated that such a recovery rate was absolutely impossible to reach for most smaller shooting ranges, because costs would be excessive (e.g. #1004, #1015, #1046) and many ranges would have to close. If the optional conditional derogation was implemented as proposed in the restriction, state financial support would be needed according to one comment (#1010).

A comment from Germany (#1046) refers to DIN 19470, parts 1 and 2 which already describe in some detail the environmental measures that are needed to operate a shooting range in Germany. Comment #1063 indicates that a national centre in Germany already has risk management measures that allow an almost 100% containment of lead shot and prevents drainage of run-off water. They claim that in this case a yearly recovery is not necessary.

Comment #1057 (ISSF) claims that the current risk management measures in place at most clay target shooting sites (described as 'walls' – supposedly the same as the soil berms described in the Background Document) already contain lead within the site area with an effectiveness of more than 90% and this would allow easy recovery. For those sites that lack walls, nets can be installed and protective film to collect the pellets.

Regarding costs for upgrading a clay target skeet range, comment #1096 detailed various cost items involved in installing extensive risk management measures (but without specifying the expected final effectiveness). This amounted to about €2.3m, which is somewhat higher than, but still comparable to, the maximum of €2m estimated by the Dossier Submitter in Table 2-50 of the Background Document for a range starting from a level without risk management measures in place.

Some comments (e.g. #1063, #1073) claim that annual recovery is not economically viable and suggest allowing a longer period between lead recovery campaigns. In the opinion of the commenters, the very low dissolution rate of lead in the soil may make this acceptable.

Comment #1028 mentioned that in Sweden there is already legislation for decontamination, so no new regulation is necessary. Others (e.g. #1063, #1073, #1101) stated that more use should be made of existing best practices and/or taking into account existing specific local conditions.

Comment #1095 expressed the concern that the proposed optional conditional derogation and its complexities would discriminate between the various levels of sports shooters, which is considered undesirable.

Comment #1161 stated that mixed use of steel and lead shot on a range should be avoided. In addition, comment #991 mentions that in Germany on shooting ranges of the military and police an extra fee is charged for those that use lead-free bullets, because the mixed presence of lead and lead-free bullets makes recycling more difficult. It is unclear if similar rules may exist for gunshot shooting ranges.

Comment #1018 from Sweden mentions the use of 'carpets' to catch lead shot. Unfortunately, no further details are given.

SEAC rapporteurs' response

SEAC considers that the potential complexity of the optional conditional derogation as proposed by the Dossier Submitter hinders its successful implementation and enforcement. This view, which is apparently shared by some commenters, is already sufficiently addressed in the SEAC opinion. Still some text was added to section 3.3.3 of the SEAC opinion to make

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it even more clear that the concerns of the commenters on this subject are acknowledged.

The suggestions for methods on how to keep track of spent lead were also included in section 3.3.3 of the SEAC opinion. Also, the suggestion to allow longer time periods between recovery cycles was added.

Data on the costs of upgrading a skeet range from comment #1096 (and a comparison to the estimates by the Dossier Submitter) were included in section 3.3.2.1 of the SEAC opinion.

3.2.2. Other topics raised

3.2.2.1. Upgrading of ranges for bullet shooting to a 'notified site'

Summary of comments received

Several comments, such as #1130, #1131 and #1146 (all from Norway) as well as #1045, #1098, #1129, indicate that they think that the cost figures presented in the calculations by the Dossier Submitter for upgrading an existing site to the level defined in the proposal are an underestimation. It is stated that most ranges operated by volunteers would not be able to pay for this. Moreover, comment #1146 claims that in the time needed for an upgrade, the Dossier Submitter has not taken into account the time to get the necessary environmental permits for modification and time and costs for the remediation of an existing site.

However, comment #1146 noted that the situation would be more favourable for building new shooting ranges. This comment also points to a research project undertaken in Norway about how to improve the handling of specific risks (including the improvement of bullet traps and sand/soil traps). They express a preference for finding the best local solutions, instead of defining a 'one size fits all' regulation.

Additionally, comment #1096 reports cost data for an upgrade of defence shooting ranges in Finland. The average costs are reasonably close to what is presented in the Background Document for a 'best practice sand trap' site.

However, #1129 (from Sweden) estimated that costs will be higher, also due to large maintenance costs of such a modified site. Comment #1050 assumes that the costs for biathlon ranges will not be economically feasible.

Comments #1081 and #1119 point to problems for the discipline of metallic silhouette shooting. In this case lead bullets are fired from a variety of firearms to knock over metal target plates. Comment #1119 assumes that many ranges dedicated to this discipline would have to close if the conditions of the proposed restriction would be implemented because they would not be able to bear the costs. No further data were provided. Shooting ranges for this discipline are shown in a picture attached to comment #1081. It clearly shows that the targets are spread over an unusually large area.

SEAC rapporteurs' response

The rapporteurs used these comments to insert some additional text in section 3.3.2.1 of the SEAC opinion to give some perspective on the costs as presented by the Dossier Submitter.

Regarding metallic silhouette shooting, the rapporteurs note the concerns regarding the much higher costs of the risk management measures that are proposed to be required for the continued use of lead bullets at a 'notified site', given that targets (and consequently lead) spread over a large area. This has been reflected as an uncertainty in section 3.4.2 of the SEAC opinion as well as in the form of a 'SEAC box' in the uncertainty section of the Background Document (section 3.2.1).

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3.2.2.2. Other shooting disciplines using gunshot not sufficiently recognized

Summary of comments received

Several comments, e.g. #1015, #1019, #1020, #1142, #1149, #1153, point to unclear or possible undesirable effects of the proposed restriction for sports shooting with gunshot in disciplines that do not involve the shooting of clay targets, e.g. IPSC shotgun shooting, cowboy action shooting, game-trail shooting.

They point to several issues:

1. It is indicated that a number of these disciplines that use lead gunshot take place at rifle and pistol ranges, hardly on dedicated shotgun ranges (e.g. ranges for clay target shooting). Some of these disciplines even include the use of large size lead gunshot pellets (#1149). The use of gunshot at rifle ranges (even if these would qualify as a 'notified site') is not foreseen in the current restriction proposal as the Dossier Submitter's preferred option is a complete ban on the use of lead gunshot in sports shooting. Even if the optional conditional derogation for sports shooting with gunshot (involving the introduction of 'permitted sites') would be implemented, this would not easily fit in because the conditions proposed for such 'permitted sites' differ from those proposed for 'notified sites'.
2. Some of these disciplines use steel targets that will tip over when hit. Commenters claim that experience has shown that the problem of ricochets if steel shot is used is much more severe in this case, where steel hits steel, leading to safety problems for the shooters and bystanders. Because of safety reasons, the international rules do not allow the use of steel shot for metal targets. So, this presents an extra barrier for change, apart from the ballistic differences.
3. Comment #1153 lists some international associations of various shooting disciplines other than clay target shooting. Some of these specify the use of lead gunshot in international competitions. If an optional conditional derogation might be created to allow the use of lead gunshot for clay target shooting in international competitions, the commenters claim that equal treatment of all sports disciplines would indicate the necessity to also create a kind of licencing scheme for these other disciplines.

SEAC rapporteurs' response

The rapporteurs note that the above addresses some aspects in the restriction proposal that may not have been sufficiently addressed before. This has been reflected as an uncertainty in section 3.4.2 of the SEAC opinion and in the form of a 'SEAC box' in the uncertainty section of the Background Document (section 3.2.1). The additions to the SEAC opinion and the Background Document describe the unclear status of the use of gunshot at rifle ranges.

3.2.2.3. Impacts on military use of ammunition and shooting ranges

Summary of comments received

Several comments, such as #1095 (from France), #1047, #1065, #1085, #1090, #1108, #1135 (from Finland), as well as #1094 (from Ireland) and #1146 (from Norway), mention the importance of using civilian shooting ranges for training of reserve soldiers or police forces. Increased regulatory requirements for such civilian ranges (and potential closure of some) may interfere with the ability to maintain shooting skills of the reservists and/or police. In the consultation on the Annex XV report, similar comments were received from the Nordic countries. In view of the current geopolitical situation this issue was stressed more prominently in the consultation on the SEAC draft opinion, especially for those countries that for their defence depend on well-trained reservists.

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In addition, there were comments (e.g. #1046, #1087, #1098, #1106) that point to the fact that a restriction on the use of lead ammunition may lead to a reduction of production capacity of ammunition for uses outside the scope of the proposed restriction (e.g. military uses). Production of (lead-based) ammunition for civilian and military uses shares the same production lines. In times of crisis, when urgent military orders may come, this may result in shortages.

SEAC rapporteurs' response

The rapporteurs are of the opinion that, regarding the training of reservists at civilian shooting ranges, potentially negative impacts of the restriction are already addressed sufficiently in the SEAC opinion (sections 3.3.2.3 and 3.4.2). Nevertheless, to make it clear that SEAC takes this very seriously, an extra remark stressing the issue of the availability of shooting ranges for the military training of reservists was added to section 3.4.2 of the SEAC opinion.

Regarding the issue of loss of production capacity of ammunition for military use, this is already addressed sufficiently in the SEAC opinion (section 3.3.2.3).

3.2.2.4. Other impacts indirectly related to shooting

Summary of comments received

Comment #1059 mentions that Cyprus has developed into a centre for foreign sports shooters and international competitions. If new regulation would make this more difficult, it is not clear if all ranges would be able to adopt and/or the attractiveness for international competitions would remain. Apart from the sports shooters directly concerned, indirect negative impacts may result in the tourist sector that benefit from the visiting shooters.

SEAC rapporteurs' response

A remark on this potential impact was added to section 3.3.2.3 of the SEAC opinion but the available data did not allow further assessment.

3.2.2.5. Complexity of the optional conditional derogation for gunshot shooting

Summary of comments received

A large number of comments from various countries (e.g. #1032, #1034, #1052, #1067, #1069, #1076, #1100, #1101, #1110, #1112, #1120, #1127, #1147) express scepticism about the practicality and monitorability of the proposed optional conditional derogation for sports shooting with gunshot. Commenters are of the opinion that this will make the restriction too complex and difficult to enforce as well as cause unnecessary costs. Moreover, many express their concern that continued availability of lead shot will promote illegal use of such ammunition also for hunting. Therefore, most commenters are in favour of a total ban and agree with the Dossier Submitter that the main reason for this derogation seems to be organisational, not technical.

SEAC rapporteurs' response

The SEAC rapporteurs are of the opinion that the complex aspects of the optional conditional derogation have been already sufficiently addressed in the SEAC opinion. Therefore, no new text was included.

3.3. Fishing

3.3.1. Specific information requests

3.3.1.1. Availability and performance of alternative split shot sinkers < 0.06 g

Summary of comments received

The comments received provided only very limited specific information on the availability and technical performance of alternatives for the smallest lead sinkers.

The majority of comments were opposing a derogation for split shot sinkers based on risk considerations as they are very easily ingested by birds due to their small size (e.g. #1043, #1052, #1062, #1064, #1110, #1145, #1151).

Furthermore, only few comments argued that there were no suitable alternatives available requesting a derogation (e.g. #1165). Other comments challenged this view indicating that suitable alternatives were already available (e.g. #1062, #1067) and that a ban would not have major impacts on users (e.g. #1028).

SEAC rapporteurs' response

As hardly any new information was provided, the SEAC rapporteurs consider that there is not sufficient evidence to justify a derogation for split shot sinkers based on socio-economic grounds.

3.3.1.2. Labelling of sinkers > 50 g

Summary of comments received

Comments received on this issue were divided. Some stakeholders opposed labelling as an alternative restriction option to the proposed ban arguing that these could also be applied to home-casted sinkers (e.g. #1062) and that sinkers made from alternative materials were already available (e.g. #1067). Furthermore, it was stated that a labelling requirement instead of a ban could suggest that lead was safe to be used in heavier sinkers (e.g. #1138) and that the durability of labels would be limited. On the other hand, there were comments supporting this option stating that it is likely to be less costly to users (e.g. #1146).

SEAC rapporteurs' response

The SEAC rapporteurs consider that relevant aspects were raised by commenters. However, as the additional information provided to assess labelling as another restriction option is limited, no conclusion on the impacts of this option can be drawn.

3.4. Cross-cutting topics

3.4.1. Benefits assessment

Summary of comments received

A multitude of comments were stating that the assessment of the benefits of the proposed restriction was incomplete, because not all negative impacts of lead in shooting and fishing were (sufficiently) addressed. It was also raised that monetary values of benefits estimated in the Background Document only reflect part of the socio-economic impacts, e.g. of lead

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poisoning of birds. Overall, many comments stressed that the benefits of the proposal were underestimated (e.g. #1080, #1082, #1157).

The following elements were reported to be insufficiently addressed or to be missing in the assessment:

- The values of wider impacts of wildlife and biodiversity losses on ecosystems and ecosystem services (e.g. #1034, #1035, #1049, #1052, #1069, #1074, #1112).
- Impacts on birds:
 - The impacts on the waterbirds that die from ingestion in terrestrial areas (e.g. #1032, #1137)
 - Further details on the species affected and their value to society, e.g. as demonstrated by their conservation status (e.g. #1035, #1049)
 - The impacts on raptors and scavenging birds (e.g. #1080)
- Impacts on other wildlife, e.g. on mammals (#1054)
- Impacts on domestic animals, e.g. cats or dogs (#1080, #1143)
- Avoided costs of wildlife monitoring for lead poisoning and conservation efforts (e.g. #1034, #1049, #1052, #1080)
- Avoided costs of environmental restoration of, e.g. pollution, affected populations or ecosystems (e.g. #1034, #1076, #1078, #1137, #1141, #1160)
- Spill over effects to areas outside the EU: Europe is an important habitat for migratory birds, therefore also ecosystems outside the EU are likely to benefit from the proposed restriction (#1049)

Several comments confirmed the sound scientific evidence base of the negative impacts of lead on wildlife. Several references to scientific studies illustrating the societal costs of using lead in ammunition and fishing tackle were provided (e.g. #1037, #1039, #1054, #1080, #1100, #1154). Most of the references mentioned are already included in the Background Document, though not used by the Dossier Submitter for further quantification or monetisation of the benefits of the proposed restriction. Also new publications were provided, e.g. on mammal exposure to lead from ammunition and fishing tackle (#1054), on the impact of lead ammunition on wildlife in specific Member States (e.g. #1126, #1160) or on specific bird species (e.g. #1112) as well as on the contribution of birds to human well-being (e.g. #1110, #1112).

Apart from pointing to the various benefits listed above that were not assessed quantitatively by the Dossier Submitter, it was also raised that for the monetisation of impacts the use of willingness-to-pay values derived by contingent valuation would provide more accurate estimates of the societal costs of lead poisoning compared to market prices used in the assessment (e.g. #1056).

It was highlighted that the positive impacts of the proposal would contribute to achieving the goals of additional international obligations for the protection of the environment to those referred to in the Background Document (e.g. #1105).

SEAC rapporteurs' response

The SEAC rapporteurs acknowledge that many positive impacts of the proposed restriction on

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the environment or on human health were not quantified in the assessment and as such the partial values estimated by the Dossier Submitter certainly underestimate the benefits of the proposal as discussed in the SEAC opinion.

Furthermore, we note that the evidence referred to in the comments further illustrate the magnitude of benefits (e.g. Pain et al. (2019) estimate the annual replacement costs of birds for four raptor species in the EU between €25m and €457m). Most of these studies are included and discussed in the Background Document (see section 2.5.3.3.4) but were not used for further quantification of the benefits. We included a reference in the opinion to the additional evidence of the benefits of the proposed restriction discussed in the Background Document.

Similar comments were already submitted in the consultation on the Annex XV report, hence we would also like to refer to the responses of the Dossier Submitter and the comments of the SEAC rapporteurs in the response to comments on the Annex XV report (section 1.1.4).

3.4.2. Questioning of risks and impacts of lead in ammunition and fishing tackle

Summary of comments received

A number of comments fundamentally question the environmental and/or health hazard and risks caused by spent lead-based ammunition stating that solid lead in the environment would not be a problem (e.g. #993, #994, #995, #998, #999, #1000, #1002, #1008, #1010, #1013, #1017, #1018, #1023, #1024, #1025, #1026, #1028, #1040, #1051, #1115, #1116, #1164). No scientific evidence was provided to underpin the statements made. They were mainly based on the fact that solid lead would not dissolve at common pH values under environmental conditions and were ignoring the risks from ingesting solid lead.

It was also stated that the studies referred to in the Background Document, which form the basis for the risk and impact assessment underlying the proposal, were flawed but without providing any proof of these claims (e.g. #1010).

SEAC rapporteurs' response

The SEAC rapporteurs consider that the information as collected and assessed by the Dossier Submitter and provided by third parties in the consultation shows that, contrary to the opinion of the commenters, problems are proven to exist and regulatory action is needed – as confirmed by RAC in its opinion. As this conclusion is already sufficiently reflected in the opinion, no further text was added to address the criticism raised in the comments concerned.

The SEAC rapporteurs note that the claims challenging the need for regulatory action and the benefits of the proposed restriction were not substantiated by scientific evidence and, as such, are not credible to disprove the ample evidence of the risks and negative impacts of lead used in ammunition and fishing tackle.

Similar comments were received in the consultation on the Annex XV report. Therefore, we also refer to the responses of the Dossier Submitter and the comments of RAC and SEAC rapporteurs in the response to comments on the Annex XV report.

3.4.3. Enforcement issues

Summary of comments received

There were several comments pointing to the difficulty of enforcing a ban on use in the field stating that enforcement of existing lead bans, e.g. in wetlands, is low and compliance is poor (e.g. #1039, #1044, #1080). Commenters highlighted the importance of including 'carrying'

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of lead gunshot into the scope of the ban on use in hunting to align it to the conditions of the restriction on lead gunshot in wetlands (e.g. #1082, #1086, #1103, #1121, #1157).

SEAC rapporteurs' response

The SEAC rapporteurs consider that the views expressed in the comments are in support of SEAC's evaluation of the enforceability of the proposed restriction (as discussed in the opinion). In order to facilitate the enforcement of the ban on the use of lead ammunition in hunting while it is still available on the market (i.e. in the case of lead gunshot if a shorter period than five years for use in hunting or the optional conditional derogation for sports shooting is implemented, and in the case of lead bullets), SEAC supports that the ban should include 'carrying' of lead ammunition in the field, in line with the restriction on lead gunshot in wetlands.