

Interactive comment on “Marine monitoring in Europe: is it adequate to address environmental threats and pressures?” by Suzanne J. Painting et al.

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We would like to thank the reviewer for their comments and the opportunity to address these in the manuscript. Our responses to comments are shown below (in red text in our uploaded document) . We have tracked changes in the MSWord version of revised manuscript. These changes also address the comments of the other reviewer/s.

Reviewer 2: This paper presents the results of an opinion poll on marine monitoring needs and gaps based on a questionnaire filled by a number of scientists (36) from 12 European countries involved in the EU-project JERICO- Next. The topic of the questionnaire is interesting and timely. The paper is well written and perfectly fine as a

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project deliverable, and as a way to advertise the project. To make it more interesting to a broad and specialised scientific community, a better balance should be taken among the topics stated in the abstract by giving more space to an updated synthesis of the literature and to an exhaustive and informative overview of the monitoring operations in place. As noted by the reviewer, this paper presents the results of the opinion poll. Very few respondents gave detail in the boxes for free text. The respondents did not supply an exhaustive overview of the monitoring operations in place. We have provided links to projects or websites where such overviews are underway. This approach would possibly allow to improve and sharpen the conclusions which are presently too general. As acknowledged by the Authors, the topic of the questionnaire has been addressed several times in recent years, but the most recent and relevant contributions to OceanObs '19 (published in *Frontiers in Marine Science*) are not considered. We have considered the most recent literature and improved and shortened our Conclusions by removing repetition and moving some of the text to Section 4, which has been edited to improve the synthesis of responses (these changes were extensive, and tracking was removed). The respondents had been given the task to act as national representatives, but it is not clear how this worked, because multiple questionnaires were filled for several countries, with 14 only from UK. This results in a lack of balance among countries and the bias that only countries and scientists participating in the project were directly involved, while it is hard to assess the actual coverage of those opinions not even in individual countries. To remove bias, we aggregated responses by country to give what we called a 'national view', i.e. a 'view by country'. We have edited the text in the Methodology (Section 2.1.1) to clarify this and added a sentence to clarify that 'These aggregated responses are referred to hereafter as 'national responses'. The other weakness is that the large part of the paper is based on opinions and partial overviews of the various issues. Although coming from qualified people and potentially interesting, it is hard to check their actual soundness and the completeness of the information. Some useful information is included in Supplementary material S3, Table S3.1, including the institutes that respondents belonged to. We

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have added additional text on representatives in Section 3.1. With a broad range of opinions, and few or no detailed responses, we examined the issue which was raised by the majority of respondents, i.e. insufficient resolution in time and space. This is discussed in Sections 5.4 and 5.5. Among the improvements suggested in section 4, I was surprised not to find any references to advanced molecular technologies. We have broadened suggestions/recommendations for new technologies to include new methods such as molecular techniques. The most interesting part could have been the overview of the Monitoring Programmes in each country, but admittedly the reported programmes were a subsample rather than an exhaustive inventory. We acknowledge that the responses to the questionnaire do not represent a comprehensive overview so we are hesitant to draw too many conclusions based on information about a subset of European monitoring programmes. Nonetheless we have expanded this section to make the best of the responses we did get. The opinions of the respondents provided valuable information. A more recent, more quantitative study in Denmark (Andersen et al. 2019) using 35 databases yielded results which are broadly similar. We have referenced this study and other more recent studies in our revised manuscript.

Please also note the supplement to this comment:

<https://www.ocean-sci-discuss.net/os-2019-75/os-2019-75-AC2-supplement.pdf>

Interactive comment on Ocean Sci. Discuss., <https://doi.org/10.5194/os-2019-75>, 2019.