Hydrol. Earth Syst. Sci. Discuss., doi:10.5194/hess-2016-73-RC2, 2016 © Author(s) 2016. CC-BY 3.0 License.



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Interactive comment

Interactive comment on "Characterising the ocean frontier: A review of marine and coastal geomorphometry" by Vincent Lecours et al.

Anonymous Referee #2

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The paper presents an exhaustive list of research dealing with marine geomorphometry. In this sense, it represents a thorough effort and a very complete picture of what has been done in the topic. I put forward the following suggestions which I think may help to improve the manuscript.

1. I would try to reduce the overall length of the manuscript. As it is now, the paper is not easy to read, it is too long, but especially, sometimes there is a lack of context to the referencing, and all the effort to compile the literature may be partially lost when reporting results of the search.

2. I think that the chapters are fine, but I would create tables with the references, avoiding what may be regarded as a long list of literature. Using tables, where the most important papers are reported, section by section, and using the text to discuss

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the importance of those findings may be more convenient, and a context may be built for the references; thus the listing would be avoided, the text would be more readable, and most of the references would be included in tables.

3. Having said this, I think the authors should report on their thinking as derived from lessons learned from the literature. As the paper is now, that task is partly derived to the reader, and it is hinted at in the conclusions with the 5 major points highlighted by the authors.

Here some more detailed comments, as they came across while i read the paper

a. The introduction would benefit to the references to the most recent reviews about high resolution data and earth surface processes, specifically (Passalacqua et al., 2015; Tarolli, 2014). This would also hint to the current limits or merits in marine geomorphometry as related to this wider context of earth surface processes. b. As stated above, the manuscript as of now is a bit on the long side. There is a lot of pages focused on data collection and processing. While this is transversally useful, it hinders the part of the paper which is specific to the theme of the review (marine geomorphometry). Currently, chapter 2 appears more as a technical report on the different techniques. The basic technical descriptions could be strongly reduced and referred to relevant sources, focusing more on the merits and limits of the different technologies, underlining the areas where there is still room for progress specifically for the field of marine geomorphometry. c. All the softwares reported in the article could be nicely organized and referenced in a table, so that a reader can have quick access to their name and location, and eventually reporting also the works that used one software or the other. d. Chapter 3 feels somehow not linked to the review. The chapter about scale could be merged to the different technique described in chapter 2, again highlighting the difference in scale as merit or limit of each technique, for example. e. Chapter 5 and 6 seems redundant. They could be merged together explaining what technique was used in the different studies. f. I found table 2 very interesting, but surprisingly this is reported only in reference to chapter 6.2, while it could be reorganized grouping the

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works also according to the aim, not just the technique.

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