

Interactive comment on “SeaConditions: a web and mobile service for safer professional and recreational activities in the Mediterranean Sea” by G. Coppini et al.

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Replies to Referee 1

Thank you very much for your very relevant comments. In the following text we present your comments followed by our answers and the modification that we propose following your comments to the final variant of the manuscript.

Referee's Comment 1 General comments: The system presented by the authors combines in-situ data and forecasts and makes such information accessible to users to plan marine operations and activities that can be hazardous periodically. It is based on the best understanding of such hazards and can be considered state of the art.

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Authors' answer No comment.

Referee's Comment 2 Scientific Quality: In general, the scientific and technical approach is clear with some small exceptions. This reviewer's main concern is the extent to which the work presented herein overlaps with the previous publication by Lecci et al (2015). As this reference is not openly available it is difficult for this reviewer to assess the extent of an overlap in content (if any). The editor should satisfy themselves that the overlap is minimised. The reviewer welcomes the authors intent to publish the results to the wider C1 NHESD Interactive comment Printer-friendly version Discussion paper community. Presentation Quality: Overall, the manuscript is well presented. Specific comments on language, figures etc are included later in this review.

Authors' answer The editor raised this issue in a previous version of the paper before submission. The paper has been extensively revised before final submission in order to minimize the overlaps with pervious publication Leccii et al (2015). Following the comment of the Referee we propose to add the following phrase in line 4 page 2: “. . .and it was presented in its preliminary version in Lecci et al 2015, this paper presents the final version of Sea-Conditions at the end of TESSA with a comprehensive overview of all components and of the different applications web and mobile.”

Referee's Comment 3 Specific comments: This reviewer does not propose suggested changes to grammar, syntax etc but hopes that this will be picked up in the editing/proof reading process in more detail.

Authors' answer Several revisions of grammars are proposed in the text.

Referee's Comment 4 Page 2, line 6: “industry sector” should be replaced with “marine/maritime sector(s)”. Line 11: not sure if “competitor” products should be mentioned. Editor should clarify journal policy in that respect. Line 35: “This activity. . .”. Sentence is incomplete.

Authors' answer Following the referee comment we have corrected as suggested in-

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cluding the “marine/maritime sector(s). We propose to keep the phrase on different but similar products available on the web to highlight the differences and the original approach of SeaConditions. We have completed the sentence in line 35 adding “by Links S.p.A.”

Referee's Comment 5 Page 3: Figure 1: USAM is not defined in the text or in the figure caption. Line 14: The nature/role of “LINKS” should be defined e.g. SME, research institute.

Authors' answer We agreed with the Referee's comment and we have substituted the acronym USAM with IT Met Office and we have specify the nature of LINKS that is an SME.

Referee's Comment 6 Page 4: Lines 2-35: A figure or table summarizing the model extents and attributes would better serve the manuscript rather than the lengthy definition(s) provided. Line 20: A reference to or description of how river run-off is implemented would be helpful. Line 39: “Okeanos” is not defined

Authors' answer We agree with the referee's comment referring to the fact that a synthetic table is needed to summarize the forecasting system main characteristics. We proposed to keep the text since it is providing relevant details. We have add the Table 1 presenting the main characteristics of the forecasting systems used by SeaConditions.

As proposed by the referee we have added the references Oddo et al., 2005, 2006; Guarnieri et al. 2008 to provide references for the description of how the river run-off is implemented in AFS.

Following the Referee comment on “Okeanos” we have remove the name “Okeanos” and we have substitute with a generic reference to the CMCC supercomputing cluster.

Referee's Comment 8 Page 5: Line 33: “channels” should be changed to “mechanisms” or “platforms”. Authors' Answer Following the referee advices we have substituted the word “channels” with “mechanisms”.

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Referee's Comment 9 Page 6: Line 14: “ for days and a half” should be changed to “4.5 days”. Line 32: “on the base of..” should be changed to “depending on the. . .”
Authors' Answer We agree with the referee suggestions and we have modified the text accordingly.

Referee's Comment 10 Page 7: Line 6: “high” should be changed to “height”. Authors' Answer We agree with the referee suggestion and we have modified the text accordingly.

Referee's Comment 11 Page 9: Figure 7: The intent is to show bathymetry. Suggest that temperature layer is removed to emphasise the bathymetry layer, hard to discern otherwise
Authors' Answer We agree with the referee suggestion and we have modified the figure accordingly.

Referee's Comment 12 Page 10: Lines 9-12: The meaning of the first two bullet points are not clear and should be clarified. Figure 8: The images should be flattened and expanded to enhance readability.
Authors' Answer We agree with the referee suggestion related to the first two bullet points of page 10 lines 9-12 and we have modified the text as following: As regards the Android version, the main principles adopted in designing SeaConditions mobile have been the "material design" guidelines[1]. Material design is "a comprehensive guide for visual, motion, and interaction design across platforms and devices"; here are examples of guidelines that have been applied: - organization of the user interfaces as the design metaphor of sheets of paper in 3D space. This imply that interfaces will have a shadow effect; - organization of information in portions of interface ("cards") accessible by a preview/detail pattern. It means that for each card, there will be two versions: the one with only a subset of information (i.e. only a small image and a caption) and the other with the complete set (i.e. the big image and complete text); - use of intense colours, bold characters, images and animations for being more attractive.

As regards of Figure 8: we have substituted the images with flattened and expanded

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ones.

Referee's Comment 13 Page 11: Lines 11 and 12: should be amended to "subscribing to" on both lines Authors' Answer Following the Referees comment we have change the text as suggested.

Referee's Comment 14 Page 12: Line 6: "to provide a service that" should be changed to "the provision of. . ." Line 16: "living labs" should be explained or a reference provided Line 18: "experimentation" should be changed to "testing"

Authors' Answer Following the Referees comment we have change the text as suggested. Moreover we have added the following text to explain the Living lab concept: "A living lab is a research concept. A living lab is a user-centred, open-innovation ecosystem (Von Hippel, 1986; Chesbrough, 2003; Almirall et al 2011), integrating concurrent research and innovation processes within a public-private-people partnership (Pallot, 2009). The concept is based on a systematic user co-creation approach integrating research and innovation processes. These are integrated through the co-creation, exploration, experimentation and evaluation of innovative ideas, scenarios, concepts and related technological artefacts in real life use cases. In our work we have applied the living lab methodology to the development of SeaConditions."

We have added the following references to the paper: Almirall, E., Wareham, J. (2011). Living Labs: Arbiters of Mid- and Ground- Level Innovation. *Technology Analysis and Strategic Management*, 23(1), 2011 pp. 87-102. <http://dx.doi.org/10.1080/09537325.2011.537110> Chesbrough, H.W. (2003). *Open Innovation: The new imperative for creating and profiting from technology*. Boston: Harvard Business School Press. Boston (US). Von Hippel, E. (1986). Lead users: a source of novel product concepts. *Management Science* 32, 791–805. <http://dx.doi.org/10.1287/mnsc.32.7.791>

Referee's Comment 15 Page 13: Figure 11: The labels are difficult to read, this should be resolved before final publication

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Authors' Answer Figures could be enlarged.

Referee's Comment 16 Page 14: Many grammatical and spelling errors in "5. Conclusions and outlook" Authors' Answer The grammatical and spelling errors have been corrected.

Marked up version of the manuscript is attached as supplement.

Please also note the supplement to this comment:

<http://www.nat-hazards-earth-syst-sci-discuss.net/nhess-2016-176/nhess-2016-176-AC1-supplement.pdf>

Interactive comment on *Nat. Hazards Earth Syst. Sci. Discuss.*, doi:10.5194/nhess-2016-176, 2016.

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