ESD-2016-39: EDITOR DECISION

December 28^{th} , 2016

Dear authors,

Thank you very much for your thoughtful responses to the reviewer concerns raised during the open discussion stage of the peer review process.

The open stage brought out a fertile discussion that is very well appreciated. Insightful, constructive reviews have been formulated raising valid concerns, and the authors aptly responded to those concerns with thoughtful arguments and pledges to substantially improve the manuscript — including revising the title, structure and relevant contents as suggested.

Aside from mutually agreed improvements to the manuscript, the authors may also wish to consider mentioning particular aspects of open debate, which are welcome to be reflected in the revised manuscript. For instance, the authors may provide brief mention of potential caveats and controversy in their statements (e.g. "it may be argued that ... however, we argue that ... based on ..."), along with further arguments justifying and supporting the authors' views. In doing so, the authors transform potential controversy from a caveat to an asset in the paper, aptly discussing open issues as has been done in the response to the reviewers.

Moreover, while further scientific technical innovation would always rank high in every readers' wishlist, the readers should be made aware that the submitted manuscript type entails a platform for concise, incisive and potentially controversial arguments to be presented (a "short communication", affine to an opinion paper). As such, the manuscript is essentially formulated as a communication of partial review and opinion/vision nature, with supporting technical (e.g. modelling, analysis) and literature evidence as deemed necessary to support the conveyed arguments. By further enhancing the exposition of the authors' visions and perspectives to tackle the raised challenges, the natural vocation of the manuscript will be further highlighted and strengthened.

Acknowledging the potential shown during the open discussion stage for a substantially improved manuscript to emerge, and in order to enable a thorough revision process along the aforementioned lines, my editorial decision entails *Major Revisions*.

If you have any further questions, please do not hesitate to contact us.

With very best wishes,

Rui Perdigão (ESD Editor)