

***Interactive comment on “Revealing the deeper structure of the end-glacial Pärvie fault system in northern Sweden by seismic reflection profiling” by O. Ahmadi et al.***

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General Overview: This manuscript presents the outcomes of a seismic reflection study carried out in the Pärvie fault system. The manuscript is well written and uses precise terminology, although a few sentences in the text are too reiterative or require slight rewriting. Some figures are not clear and the captions require rewording. This work complements the one carried out by Juhlin et al. (2010) and produces deeper images of the target faults. However, I am missing more discussion about the differences in the results amongst these two experiments, especially giving that the new experiment has successfully increased the imaged depth of the faults in almost 5 km. One of

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the objectives of this experiment is to provide subsurface information to the DAFNE project. The authors should describe in more detail how the results of this work would affect the planning of this drilling project, both in the introduction and in the discussion/conclusion. The integration of the seismic image with the earthquake data is also a very attractive outcome that should be expanded by the authors if possible. I would suggest adding a cross-section figure of the study area, based in the seismic image and showing the characteristics of the proposed fault models. This could provide a clear summary of the conclusions of your work and will help the reader to understand your interpretation.

Specific comments: Please find the specific comments in the attached supplement

Please also note the supplement to this comment:

<http://www.solid-earth-discuss.net/7/C166/2015/sed-7-C166-2015-supplement.pdf>

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Interactive comment on Solid Earth Discuss., 7, 537, 2015.

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