

Dear Julian,

We warmly thank you for your careful reading of our paper and your help in improving our message. We tried as best as possible to answer your comments and to correct all mistakes/errors you noticed through the text.

Please find below our answers to your general comments. You'll also find all minor changes we made throughout the text in the "track-changes" version of the text.

The manuscript is adequately written and structured. However, even though I'm not an English native speaker, I think the English could be better and, particularly, the style: there is an excessive use of brackets across the paper that should be avoided in the revised version in favour of a greater clarity in the statements and ideas expressed. I strongly recommend the authors to check the English and style of writing. There are also many typos, some of them highlighted in a commented pdf attached.

Thank you Julian, we carefully checked and re-wrote many parts of the text to improve both English and style of writing.

My major concern relates to sections 3.1 and 3.2:

We rewrote both parts (please see track changes and below) following comments you performed along the text. We modified figure 3, added Figure 2 to explain the rules to define segments typology and added table 1 to provide an example. We provided more details in our explanations in order to avoid the telegraphic style.

Main comments performed along the text:

P2L20: Check on "NHESS instructions for authors" web site how to cite web-pages.

We modified the way to cite websites, but haven't found clear recommendations on the NHESS website

P2L25 Try "master thesis". (student works sounds strange)

Good suggestion, thank you

P3L17 "I don't understand this statement"

Right, this is a remnant from a preliminary version of the paper. Thank you.

P6L3 Define family. I am not sure about what you try to mean with this term.

This was unclear and not informative. We removed this point and better defined Typologies afterwards (homogeneously from text to tables).

P6L15 It would be good if you give an example.

Done considering a segment of the Vuache fault (table 1). *“As an example (Table 1), the 2nd major segment of the Vuache fault (IDF=5317) will be quoted 5317_2_M”*,

P6L30 Sorry, I don't understand what is the relation between using Wurm or Weichselian and the database filed NWEU.

“Because the terminology of Quaternary glaciations used over time in the French bibliography often refers to Alpine regional stages, we introduced a field referring to their corresponding north-western European stages” But perhaps this field is not really useful and we can remove it from the DB in a next release.

P7L7 principles? you may refer to epochs or stages...and please, provide more detail in your explanations...

We clarified this point: *“It refers to the dating method used to establish DCHRT and DCHRB. We rely on three predefined terms: 1) radiometric when numerical ages are available, 2) relative when ages of movement can be constrained by stratigraphic or biostratigraphic information and 3) indirect when only facies correlations are available at regional scales”*

Figure 2 : Don't you think the fault should completely crossed DCHR? and then covered by UCHR?

Right, we modified the figure accordingly

Figure 2 (now 3) Caption: I think it should better read instead: illustration of the different chronological terms used in the database.

Modified in: *“Conceptual example illustrating the different chronological terms used in BDFA to determine the age of deformations and slip-rates”*. Figure 2 was also strongly modified after reviewer's 2 comments.

Figure 3 (now 4) Try to use a larger size for the text involved in the figure. It is very tiny now.

We modified the figure with larger fonts.

P9L27: Do you mean CRISIS2015? i think that is the actual name: CRISIS2015

Right, in fact CRISIS2014

P10L20: “The way this phrase is written is confusing. It seems like because you have vertical slip rates then the fault is normal. It is obvious to a geologist that this faults are normal because you are in a graben, but it might be not that obvious for an engineer or seismologist.”

We modified as *“It is important to mention that in this part of the Rhine Graben, all fault slip-rates that are available in the literature are given as vertical slip-rates, considering that the long-term normal activity observed along these faults is representative of the ongoing deformation processes.”*

Figure 4 (now 5) : what does it mean? Is 99 a special code used when no data is available? It would be good if you explain this at the caption

We explained what “99” and “Undef” refers to in the figure caption: “Unknown data are reported Undef or 99 in the BDFA table.”

P13L11: Please, explain what is the "issue" here? It is very general, please, be more specific.

We clarified: *"We also point out that according to international safety guides (IAEA, 2010), the fault displacement hazard, related to a fault that has a significant potential for displacement at or near the ground surface, should be explored for facilities located in the vicinity of potentially active faults. This hazard analysis (FDHA) however requires a detailed and local dataset as well, that BDFA clearly does not fulfill (...)"*

References: We added the correct references concerning the Proyecto Datacion, Refecences missing are in fact cited in figure 4.