Reply on RC1
Heye Bogena et al.

Author comment on "COSMOS-Europe: a European network of cosmic-ray neutron soil moisture sensors" by Heye Bogena et al., Earth Syst. Sci. Data Discuss., https://doi.org/10.5194/essd-2021-325-AC1, 2021

General comments
The data paper is a great example of what can be achieved when disparate datasets are brought together and processed in a consistent manner. I like the use of normalised quantiles to facilitate widespread comparisons. The dataset will be a great resource for a variety of studies. I have no problems with recommending this paper for publication and only have a few minor comments which are outlined below.

- We thank the reviewer for the positive evaluation and the comments.

I think the potential for a global version of the analysis and processing undertaken in the paper is exciting prospect.

- We fully agree.

Specific comments
L43-44 – Unusual wording. Do you mean “For example, in the last decade Europe has suffered from drought events unlike any seen since the beginning of weather recording.”

- Will be corrected as suggested.

L44 - cosmic-ray (not Cosmic-ray)

- Will be corrected as suggested.

L83 – “cosmogenic” in different font

- Will be corrected

L86 - delete “prone”

- Will be corrected

L118-119 – suggest “The Weisssee data only shows limited and short snow-free periods
where soil moisture data is available..."
- We agree and will change the sentence as suggested.

L248 – is something missing here are ”More specifically, “ ?
- Will be corrected

L274 – it might be worth mentioning that the 24 hr moving window is good for drought studies but may obscure the signal from wetting events which typically occur much faster
- We agree and we will add this information.

Table 1 – is it possible to get the column headings on each page
Table 2 – as for Table 1
- We agree and will add column headings on each page

Fig 2, 3 and 4 – my versions look quite blocky – perhaps it is lower resolution that final will be

ALL Appendix figures – text in figures (labels/legends/etc) not crisp
- Quality all figures will be increased.