Dear Veronica Pazzi,

We have made all the proposed changes in the manuscript.

We added missing citations for the catalogue's, as well as the reference to the data availability section (in which the references to the raw catalogues have been also cited).

The Figure 2 caption has been changed.

The explanation on the smoothing kernel values for Italy have been expanded in order to be similar to the one given in the referee answer:

"*Since the σparameter used in the smoothing kernel computations and based on the location uncertainty aims to account for the physical variability in the location of the earthquakes, three models with different uncertainty values have been tested to showcase the variability in the results as a consequence of increasing or decreasing the uncertainty of the epicentre location. In order to obtain such values, the work from (Scudero et al., 2021) gives insight on the variation of the horizontal error (ERH) in Italy as well as a range of mean values for different revision processes on the data (2.2, 3.3 and 13.1 km). Given that the HORUS (Lolli et al., 2020) catalogue, used in this work, has no information on the ERH, but the locations of the events are obtained through the ISIDe database, their spatial uncertainty can be deduced from the CPTI15 catalogue (Rovida et al., 2020, 2022).*

The aforementioned range of mean values for the ERH is coherent with the mean spatial uncertainty obtained from the CPTI15 catalogue.

Therefore, a minimum value of 6 km, in agreement with the previous explanation, and a maximum value of 30 km, following the work of Taroni et al. (2021) has been chosen to characterise the spatial uncertainty. The three models proposed for the seismic activity smoothing are presented in Table 4."

The new version of the manuscript is sent along with the pdf with the changes.

Best regards,
The authors