

Dear Reviewer,

Thank you for your positive remarks and insightful comments on the paper. We appreciate the time and effort that you have dedicated to our manuscript. We have discussed your main technical suggestions and summarized the outcome below. The small editorial suggestions will be also incorporated in the revised manuscript, which will be uploaded in a later stage.

- Line 191-199: *Changed the sentences in this section according to your suggestions.*
- Line 194: Why a value of 2?
We use a factor of 2 because at the surface, the up- and down-going waves are recorded at the same time. By the division by 2, the amplitude of the upgoing wave is retrieved. We will add a sentence in the updated manuscript.
- Line 245-246: Why is the relationship between HVSR and AF of most importance?
The relationship between the HVSR A_0 and the AF is used to obtain an AF per class for the zonation map (Section 6.3). HVSR records are available throughout the country while the AF is not. These lines are rewritten for more clarity.
- Line 255: What are x_1 , x_2 and x_3 ?
You have raised a good point here and accordingly in the new manuscript we changed the x_1 , x_2 , x_3 to a, b, c to circumvent confusion with Cartesian coordinates. a, b and c are the three unknown coefficients to be fitted. This line is rephrased for more clarity.
- Line 265: Do you mean that the influence of this parameter is the least?
Indeed, we mean the influence is less. But removed the sentence since it was in repetition with the next sentence.
- Line 363: According to you, what can explain such a discrepancy? What show for example the corresponding ETF?
Thank you for pointing this out. Unfortunately, for this area we cannot compute an ETF since it is seismically quiet. With this example we like to point out that the GeoTOP model is a model, and interpolated between the data points. This adds extra uncertainty to the map, which is discussed in Section 6.3.
- Line 394: A word is missing.
Thanks, yes here a word is missing. Added 'regional pattern'.

We hope we cover your comments and are willing to respond to any further questions and suggestions you may have.

Sincerely,

Janneke van Ginkel, Elmer Ruigrok, Jan Stafleu and Rien Herber