

Reply to Reviewer 2

Line	Comment	Answer
223	Please elaborate more on how you chose the location of the products. Moreover, the selection of EPDs could be chosen based on most common used products in the local market (Italy in this case).	The location or provenance of the products could not be chosen as there were not enough EPDs to choose from after the first criteria for selection was applied (match with the product/material characteristics of the BoQ of the building). However, we acknowledge that product provenance/location can indeed have an impact on the environmental impacts of a product, for example in the production (because of different in technology, manufacture methods, energy mix, etc.) or in transport scenarios. To avoid neglecting the aspect of the transport scenarios, we decided to take a closer look and analyze what would be the potential differences between the transport scenarios reported/assumed in the EPDs (for A4 and C2) and "typical" transport scenarios (which were given by the building designers). We have provided a more explanation of this aspect in the manuscript.
245	Please fix the reference error.	Thank you very much for the note. The error has been fixed.
255	Can you please briefly explain the differences between the three levels?	We have included a short description of the aim of each level.
382	Can you transform table 8 in a bar chart?	Yes, this can be seen now in Figure 6.
364-377, 384-395	Can you elaborate the results in table 8, what are the main reasons for the differences seen in the various LCA stages? can you please elaborate (e.g. different FU, different LCA stages, etc)?	We've added two paragraphs in Section 3.2 mentioning the main reasons for the differences in the LCA results.
396	Can you also sum up the total for each impact category to make the comparison easier to read?	Since Table 8 was transformed into a figure (Figure 6), we decided to present the total results in form of a diagram (Figure 7), especially to graphically show the difference between life cycle stage for the addressed impact categories and assessment approaches.
399-537	I think there is a little confusion between information provided in discussion and conclusions. Text referring to other literature seems more fit in the discussion section. it is worth revising these two sections of the paper	Thank you very much for this comment. We have carefully reviewed both sections and restructured accordingly. In the Discussion section, the results of the study are discussed and related to the findings from other authors.