

Solid Earth Discuss., community comment CC3
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Comment on se-2021-56

Michael Behm

Community comment on "Two subduction-related heterogeneities beneath the Eastern Alps and the Bohemian Massif imaged by high-resolution P-wave tomography" by Jaroslava Plomerová et al., Solid Earth Discuss., <https://doi.org/10.5194/se-2021-56-CC3>, 2021

Related to the previous comment, also this statement needs correction:

"Alps from data of regional passive experiments (Dando et al., 2011; Mitterbauer et al., 2011; Karousová et al., 2013) also retrieved the northward dipping high-velocity heterogeneity of similar geometries (Fig. 5) and associated it mostly with the Adria plate subduction."

Neither Mitterbauer nor Dando et al. interpret the high velocity as Adriatic lithosphere. In contrast, Mitterbauer explicitly interprets it as European lithosphere, and Dando makes no assignment to any domain, if I remember correctly. Fig. 5c in your paper is a 2D slice through a 3D model. In order to follow the interpretation by Mitterbauer et al., it is needed to look at the entire 3D model.

It is also noted that the model by Lippitsch et al. has much lower coverage in the Eastern Alps compared to the ALPASS (Mitterbauer) data, and that their interpretation of the northward dipping lithosphere is largely based on a single 2D slice with arbitrary (SW-NE) direction. Again, it would be required to look at the entire 3D model by Lippitsch et al. and also at the coverage/resolution.