Where is seismic anisotropy located beneath the Alps and the Apennines?

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A general review on measurements of upper mantle seismic anisotropy in the Alpine and Apennines region is now encouraged by the large amount of data produced by several projects (i.e AlpArray, Cifalps1). Geodynamic studies need to have a sketch of mantle flows that drives the evolution of a tectonically active region. This is particularly important for the Italian peninsula, where several slabs have been involved in the Alps and Apennines building and where they are still interacts with the Adriatic plate. Draw mantle flows starting from seismic anisotropy requires to locate the source of what SKS phases detect. The answer, often undetermined, it is frequently hypothesized cross-checking different seismological observation. Overlapping SKS data with tomographic models in this region gives little help, because of the large differences in the shape, depth and dimension of fast bodies identified by different tomographic studies. Mapping and comparing SKSs data with other types of anisotropy measurements (Pn anisotropy, azimuthal anisotropy from surface waves tomography, crustal anisotropy) allow to discretise where fast anisotropy direction is much more probably astenospheric or where it pervades also regions at shallower depths.