



ETRS89 or ITRS and what are the user needs?

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The ETRS89 was defined and introduced by EUREF in the early nineties, so some thirty years ago, for positioning applications, but also for unifying Pan-European national reference frames. By definition, the ETRS89 and ITRS are intimately linked by a 14-parameter similarity transformation, in such a way that the ETRS89 horizontal station velocities are minimized in order to accommodate centimetric operational geodetic applications in Europe. However, as both systems coincide together at epoch 1989.0, the ETRS89 realizations diverge from the ITRS by about 60 cm today.

Given the development and improvement of fast, easy-to-use, and highly accurate tools and methods of precise point positioning, making use of IGS GNSS orbits that are aligned to the ITRS, the question that arises is whether we still need to use the ETRS89 in Europe? The paper will address the pros and cons of the ETRS89 from the user perspectives.