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## The survey and alignment of the FCC

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“The CERN Survey team is involved at all stages of the construction of a new particle accelerator and its experimental detectors. From very early, when the geodetic aspects are quite important to determine the location of the structure and the preparation of the civil engineering works, up to the final alignment of the components, the Survey team is involved in all activities necessary to achieve the alignment of accelerator and experimental detectors components within sub-millimetre tolerances.

The presentation will focus on the alignment tolerances, the metrological aspects during the assembly phase, the different steps of the alignment in tunnel and the maintenance of this alignment in a new tunnel especially in the areas where the alignment accuracy is quite tight and the access conditions very harsh from the radiation point of view. The proposed alignment solutions will be presented for the three FCC options, as well as the latest studies, the unresolved issues and the options to resolve them.”

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