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## Community Support for A Fixed-Target Programme for the LHC

### Content

This contribution aims at promoting the ground-breaking physics programme accessible with the multi-TeV LHC proton and ion beams used in the fixed-target mode. It can be realised in a parasitic mode for the LHC complex using existing detectors like those of the LHCb and ALICE collaborations or new dedicated systems during the LHC lifetime. It contains a brief description of the different technical implementations which are currently under investigation as well as the basic performances offered by the use of the ALICE and LHCb detectors in the fixed-target mode. In short, the multi-TeV LHC beams allow for the most energetic fixed-target experiment ever performed opening the way for unique studies of the nucleon and nuclear structure at high  $x$ , of the spin content of the nucleon and of the phases of the nuclear matter from a new rapidity viewpoint at seldom explored energies.

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### Comments:

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