

High - Intensity Muon Beams (HiMB) project or how to improve the most intense continuous muon source in the world

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Currently PSI delivers the most intense continuous muon beam in the world with up to a few $10^8 \mu+/s$. The High Intensity Muon Beam (HiMB) project aims at developing a new target station and muon beam lines able to deliver $10^{10} \mu+/s$, with a huge impact for low-energy, high-precision muon experiments.

While the next generation of proton drivers with beam powers in excess of the current limit of 1.4 MW still requires significant research and development, the focus of HiMB is to improve the surface muon yield with a new target geometry and to increase capture and transmission with a solenoid-based beamline in order reach a total efficiency of approximately 10%.

We present the current status of the HiMB project.

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