

PROPOSALS FOR THE UPGRADE OF THE CERN PROTON ACCELERATOR COMPLEX

R. Garoby for the HIP working group (M. Benedikt, K. Cornelis, E. Metral, F.
Ruggiero, M. Vretenar)

The High Intensity Proton (HIP) working group was created at the end of the year 2002, with the mandate to make recommendations to the management of the AB department for the future of the CERN complex of proton accelerators. The present performance has been compared with the future needs expressed by the various users, namely the physics experiments dealing with LHC, neutrino, radioactive ion beam, SPS fixed target physics, neutrons and antiprotons. Possible improvements have been identified and a coherent upgrade scenario of the whole accelerator complex has been worked out taking into account the present CERN priorities. Conclusions and recommendations at short, medium and long term will be described and complemented with the outcome of the workshops and discussions held since the publication of the HIP report.