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## **Tue-Mo-Po2.08-04 [57]: The upgrade of the CERN Proton Synchrotron Booster transfer line magnets**

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The CERN PSB (Proton Synchrotron Booster) is currently under-going a major upgrade with an increase in both injection and extraction energy. With the connection of the new LINAC 4, which replaces the now decommissioned LINAC 2, the energy of the beam to be transported to the PSB is increased from 50 MeV to 160 MeV. Simultaneously, the PSB will be upgraded to provide protons to the CERN PS (Proton Synchrotron) with an increase of energy from 1.4 GeV to 2 GeV. This corresponds to an increase of two times at injection and by 30% at extraction the beam rigidity and thus field requirements of the transfer line magnets into and from the PSB respectively. To cope with these increases, more than 40 magnets in the transfer lines to and from the PSB will be replaced with new magnets. This paper gives an overview of the challenges and chosen solutions concerned by this upgrade.

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