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The Semi Digital Hadronic CALorimeter (SDHCAL)

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The successful running of the technological prototype of the Semi-Digital Hadronic CALorimter (SDHCAL) developed within the CALICE collaboration and proposed to equip the future ILD detector of the ILC has provided excellent results in terms of energy linearity and resolution but also tracking and PID capabilities.

To validate completely the SDHCAL option for ILD, a new R&D activities have started. The aim of such activities is to demonstrate the ability to build large detectors (> 2m2) GRPC with a new version of readout electronics and a new detector interface board with the aim to have the capability to address up to 432 ASICs of 64 channels each by the latter.

In addition, a new mechanical structure using electron beam welding is used to build the mechanical that will host the active layer made of GRPC and their embedded electronics.

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