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Conclusions of the Town Meeting: Heavy Ion and QGP Physics at CERN

On Monday, February 17, 2025, a town meeting was held at CERN to gather input on heavy ion and quark gluon plasma (QGP) physics for the European Strategy for Particle Physics 2026. The meeting included brief presentations on current and upcoming heavy ion experiments at CERN's LHC and SPS, along with future projects at the FAIR facility in Darmstadt and Brookhaven RHIC. It also highlighted CERN's injector and accelerator complex capabilities for providing ion beams to the HL-LHC (with a view to FCC-hh) and future fixed-target experiments. Additionally, the meeting offered a platform for scientists and groups to share comments and statements, including a panel on theory.

The meeting had 279 registered participants representing all experimental and theoretical activities in the field. It concluded with an open discussion on the priorities within the field. The following text, while not officially endorsed by any of the mentioned experimental collaborations or facilities, summarizes the consensus of the scientific community on the field's priorities, as expressed by the town meeting participants. It is submitted to the Open Symposium of the European Strategy Group in Venice by the convenors of the meeting.

Authors: MILOV, Alexander (Weizmann Institute of Science (IL)); WINN, Michael (Université Paris-Saclay (FR)); SNELLINGS, Raimond (Nikhef National institute for subatomic physics (NL)); ARNALDI, Roberta (Universita e INFN Torino (IT)); WIEDEMANN, Urs (CERN); LEE, Yen-Jie (Massachusetts Inst. of Technology (US))