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The CERN High Field Magnet Program (15' + 5')

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High Field Magnets is one of the priority R&D clearly identified in the Update of the European Strategy for Particle Physics, as well as the HEPAP Accelerator R&D Subpanel. CERN, together with several collaborating institutes in the Member States, is responding with a broadly structured and progressive approach to increasing field levels.

The activities in the domain of high field accelerator magnets cover technology, demonstration and engineering developments, embracing construction projects such as HL-LHC, and design studies such as the FCC, but also beyond. This presentation covers the rationale of the program, by putting it in the context of previous developments, and lists the main milestones in the path that we traced to drawing the maximum performance from LTS materials, and exploring the potential of HTS materials.

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