



# European Organisation for Nuclear Research (CERN)

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CERN Accelerators and future projects



## Abstract:

- Since the start-up of the LHC accelerator, there has been two successful physics runs with an impressive amount of data delivered to the LHC experiments at 7 and 8 TeV centre of mass energy for the Run 1 (2010-2012) and at 13 TeV for the Run 2 (2015-2018). A full exploitation of the LHC including an upgrade of the accelerator and detectors (High Luminosity LHC) is defined for the next two decades. An intensive program of R&D was launched to achieve the High Luminosity challenges: superconducting high field magnets, superconducting RF compact cavities, collimators, superconducting lines, radiation hard power converters. CERN is also initiating exploratory studies for future long-term project post-LHC : CLIC and FCC. The presentation will recall the main LHC technical developments. Then the R&D program, the role of industry and the plans for the full exploitation of the LHC will be discussed and finally the CLIC and FCC studies will be presented.

## About the Speaker:

- Frédérick Bordry is the CERN's Director of Accelerators and Technology since January 2014. He is responsible for the operation and exploitation of the whole CERN accelerator complex, with particular emphasis on the LHC and for the development of new projects and technologies.

