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[B04] The ATLAS tracker system for HL-LHC

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The ATLAS experiment is currently preparing for an upgrade of the Inner Tracking for High-Luminosity LHC operation, scheduled to start in 2027. The radiation damage at the maximum integrated luminosity of 4000/fb implies integrated hadron fluencies over 2×10^{16} neq/cm² and tracking in very dense environment call for a replacement of the existing Inner Detector. An all-silicon Inner Tracker (ITk) is proposed with a pixel detector surrounded by a strip detector.

After the approval of the TDRs by the CERN Research Board, the pre-production readiness phase has started at the institutes involved and the community is now moving in production mode. In this contribution we present the design of the ITk Detector and its expected performance. An overview of the current status of the various detector components, both pixel, strip and the other common items, focusing on the preparation for production, with its more challenging aspects, will be summarized.

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