

# ALICE upgrades for LHC Run 4 and beyond

*Tuesday, 28 July 2020 16:30 (15 minutes)*

While ALICE is currently undergoing major upgrades which will come online for LHC Run 3 (starting in 2021), further projects are already on their way. ALICE is developing thinned wafer-sized monolithic active pixel sensors to replace the inner tracking layers in the Long Shutdown 3 (starting in 2025). This resulting detector will have an unprecedentedly low material budget, and consequently drastically reduced interaction probabilities and unparalleled vertexing performance. Furthermore, we will present the plans for the installation of a Forward Calorimeter (FoCal) comprising a Si-W electromagnetic calorimeter with pad and pixel readout and a hadronic calorimeter with conventional metal-scintillator technology with optical readout, covering  $3.4 < \eta < 5.8$ . Finally, we will present ideas for a thin, light, fast detector fully based on silicon sensors for tracking, time-of-flight and shower measurements. This combines the advantages of extremely low material budget, fast read-out and high resolution which will enable novel measurements of electromagnetic and hadronic probes of the QGP at very low momentum.

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## Secondary track (number)

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