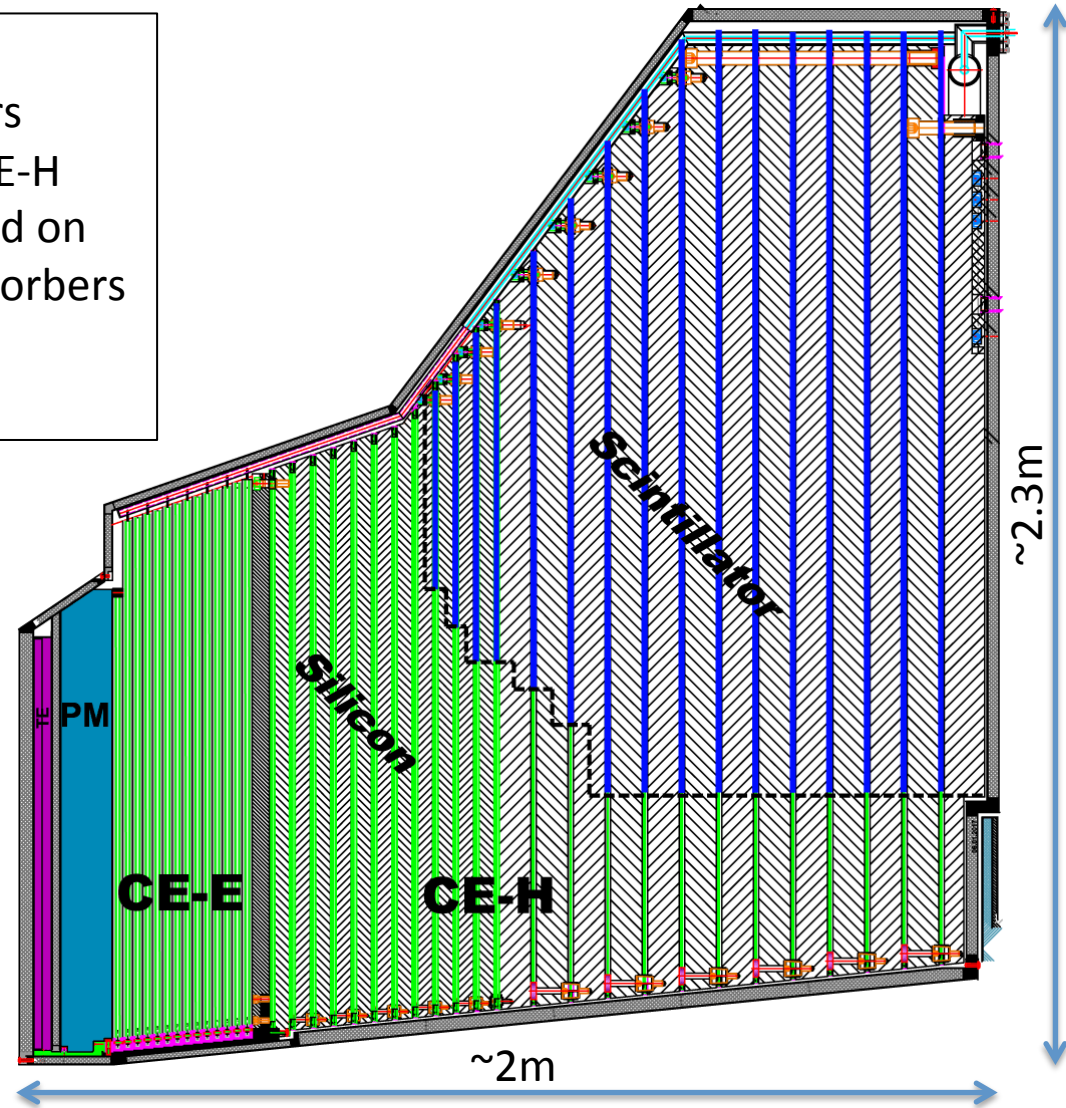


### Active Elements:

- Hexagonal modules based on Si sensors in CE-E and high-radiation regions of CE-H
- “Cassettes”: multiple modules mounted on cooling plates with electronics and absorbers
- Scintillating tiles with SiPM readout in low-radiation regions of CE-H

### Key Parameters:

- CE covers  $1.5 < \eta < 3.0$
- ~215 tonnes per endcap
- Full system maintained at  $-30^{\circ}\text{C}$
- ~600m<sup>2</sup> of silicon sensors
- ~500m<sup>2</sup> of scintillators
- 6M si channels, 0.5 or 1 cm<sup>2</sup> cell size
- ~27000 si modules
- Power at end of HL-LHC: ~110 kW per endcap



Electromagnetic calorimeter (CE-E): **Si**, Cu & CuW & Pb absorbers, 28 layers,  $25 X_0$  &  $\sim 1.3\lambda$   
Hadronic calorimeter (CE-H): **Si** & **scintillator**, steel absorbers, 24 layers,  $\sim 8.5\lambda$