Cost/Effort Estimate Methods

- Effort estimated using analogy to similar activities in

  - Phase-I: LAr, TDAQ activities very similar to HL-LHC

  - Original ATLAS: Tile,Muon activities essentially the same for HL-LHC

  - HTT & LAr-BE: used as basis for L0MDT

System	Analogy	Institutes for Original ATLAS / Phase-I
LAr	• Front End: Phase-I LTDB • Back End: Phase-I LDPS	• Columbia, SMU, UT Austin • Arizona, Stony Brook
Tile	• Main Board: original ATLAS • LVPS: original ATLAS	• Chicago • ANL, MSU
Muon	• sMDT: original ATLAS MDT • CSM: original ATLAS CSM • TDC: original ALTAS mezzanine • L0MDT: HTT, LAr DPS	• Michigan • Michigan • Michigan • Chicago, Penn, Columbia
Trigger	• GEP: Phase-1 gFEX Algorithms • HTT: Phase-1 FTK	• BNL, Chicago, Indiana, MSU, Oregon, Pitt • ANL, Chicago, Illinois, Stanford

Institutes in red are participating in HL-LHC activities in this area