

# Detector Team Update

27 September 2021

# 2nd Simulation Campaign



- Final Steps Done Since Last Meeting:
  - Each sub-detector complies without complaint and is in ECCE with no overlap (step 7 of 11)
  - 10M SIDIS event generated (step 8 of 11)
  - Analysis the 10M events (step 9 of 11)
  - Meet with PWGs regarding particle gun and SIDIS sim validation (step 10 of 11)
  - Running in progress since Wednesday Sept. 22 !! (step 11 of 11) [now at ~70M of 100M events]
- Production sites have all launched jobs with all evaluators enabled
  - 10M single electrons
  - 10M single pion
  - 20M SIDIS ep at 10x100 GeV
  - 20M SIDIS ep at 18x275 GeV
  - 1M HF&Jet eAu at 10x100 GeV
- Files are on S3 and xRootD under the folder prop.4 (e.g. eicS3/eictest/ECCE/MC/prop.4/prop.4.0/...)

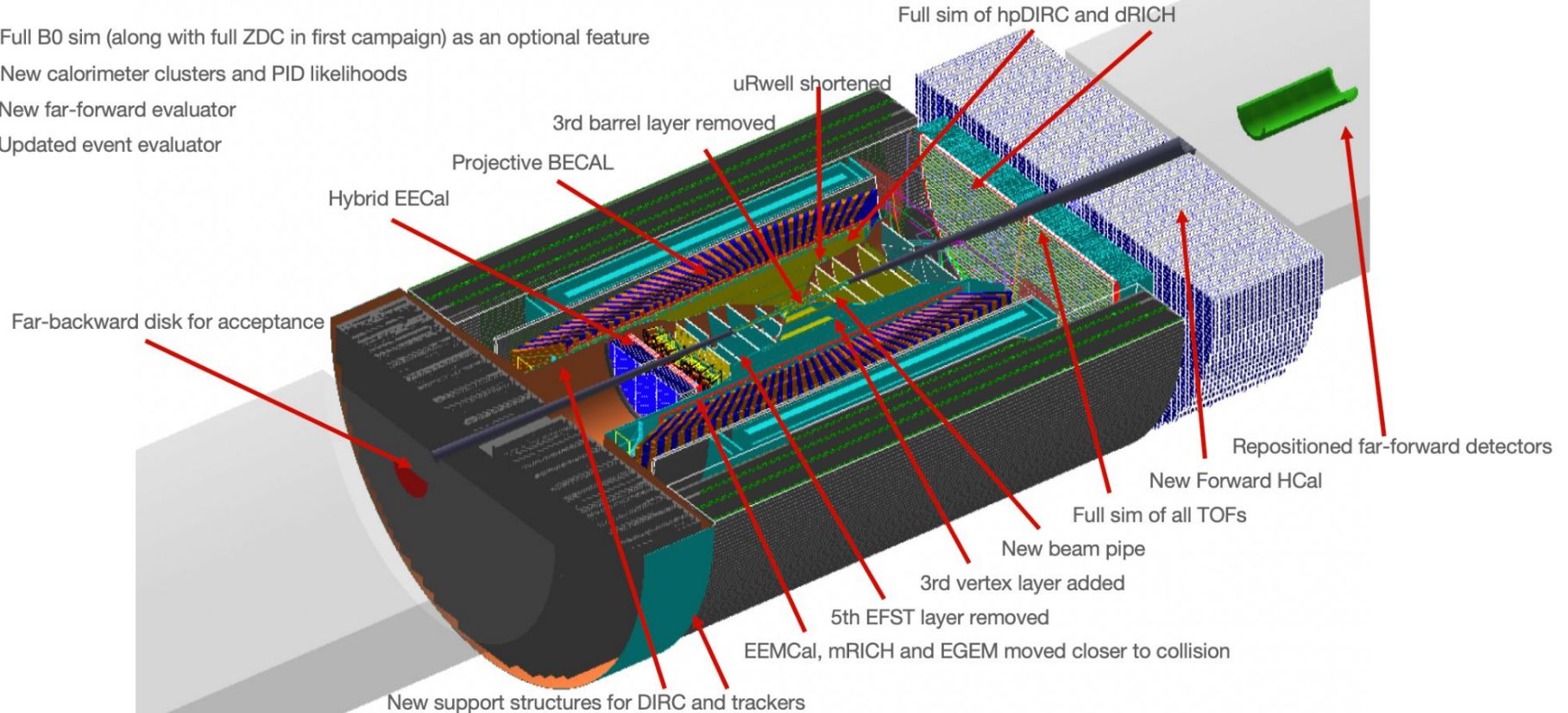
# Changes for 2<sup>nd</sup> Simulation Campaign

Full B0 sim (along with full ZDC in first campaign) as an optional feature

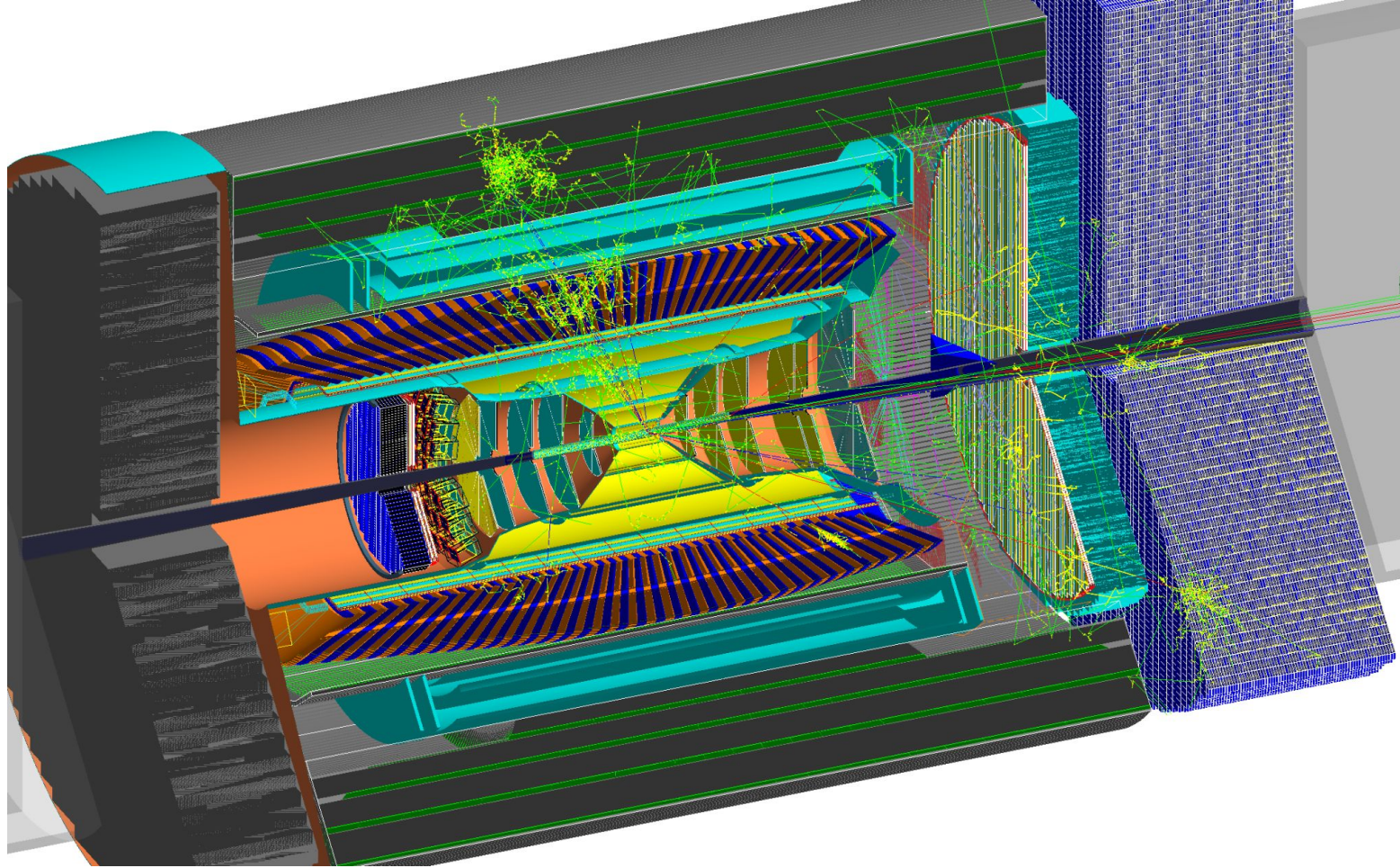
New calorimeter clusters and PID likelihoods

New far-forward evaluator

Updated event evaluator



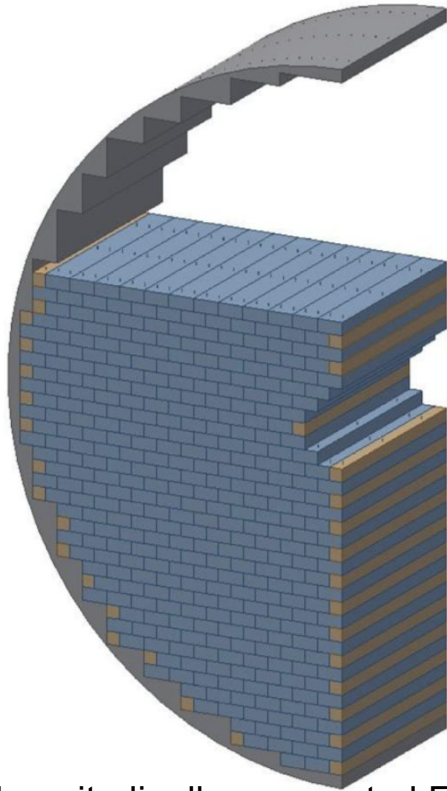




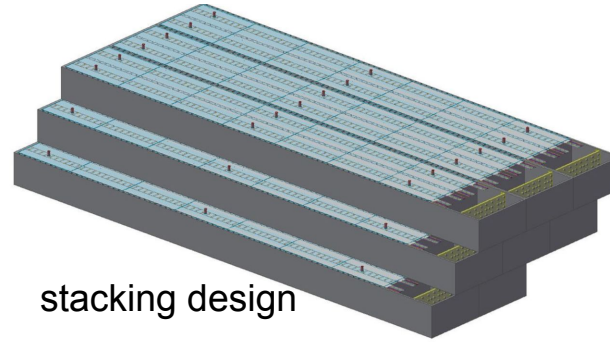
# Project Research & Development

- Project R&D Project (GENERIC EIC Detector R&D program ends 30 September 2021)
  - eRD101 mRICH
  - eRD102 dRICH
  - eRD103 hpDIRC
  - eRD104 Silicon Service reduction
  - eRD105 SciGlass
  - eRD106 Forward EMCAL
  - eRD107 Forward HCAL
  - eRD108 Cylindrical MPGD
  - eRD110 Photosensors
  - eRD111 Si-Vertex (excl. sensors)
  - eRD112 AC-LGAD
  - AND eRDASICS/Electronics starting later
- Once the decision is about the project detector is known in March, the project R&D document will be revised.
- Thank you to those who have replied but **we still need information for the spreadsheet as soon as possible about ECCE's project R&D needs:**  
<https://docs.google.com/spreadsheets/d/158QleLvQQU9SgiAYfabGe2BSo-czh1Uom4x6n9gTiUw/edit?usp=sharing>

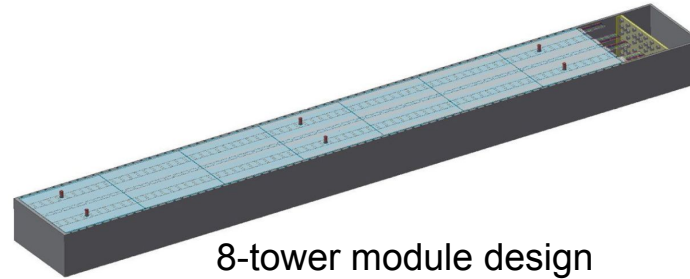
# LFHCal Mechanical Engineering



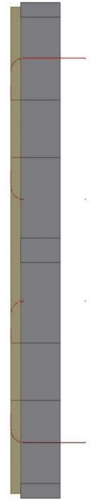
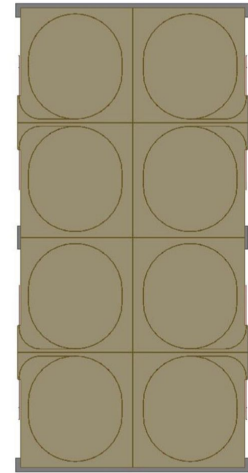
Longitudinally segmented Forward HCal with 8-tower and 4-tower modules and support frame



stacking design



8-tower module design



single tile with scintillator, steel absorber, and wavelength shifting fiber

# ECCE Cost, Schedule, and Risks

- Cost & Schedule Drill Down sessions with DWG conveners, Cost & Schedule Team, and Steering Committee to review tasks, costs, and schedule details
  - **Recently reviewed:** Magnet, PID, DAQ, ECal and HCal
  - **This week:** Electronics scheduled. To be scheduled for this week: Tracking, Infrastructure, Auxiliary Detectors, Luminosity Monitor
- Reminder to all DWG Co-conveners:
  - **DUE BY OCTOBER 1 (COB): Final draft execution narratives** (scope, phases of project, interfaces, workforce, in-kind contributions, assumptions, risks. See EEEMCal example sent by John Cunningham on 9/24/21.)
  - **DUE BY OCTOBER 8 (COB): Final cost planning data.**



*TIME  
TO  
WRITE*





# BACKUP