

ESB Overview

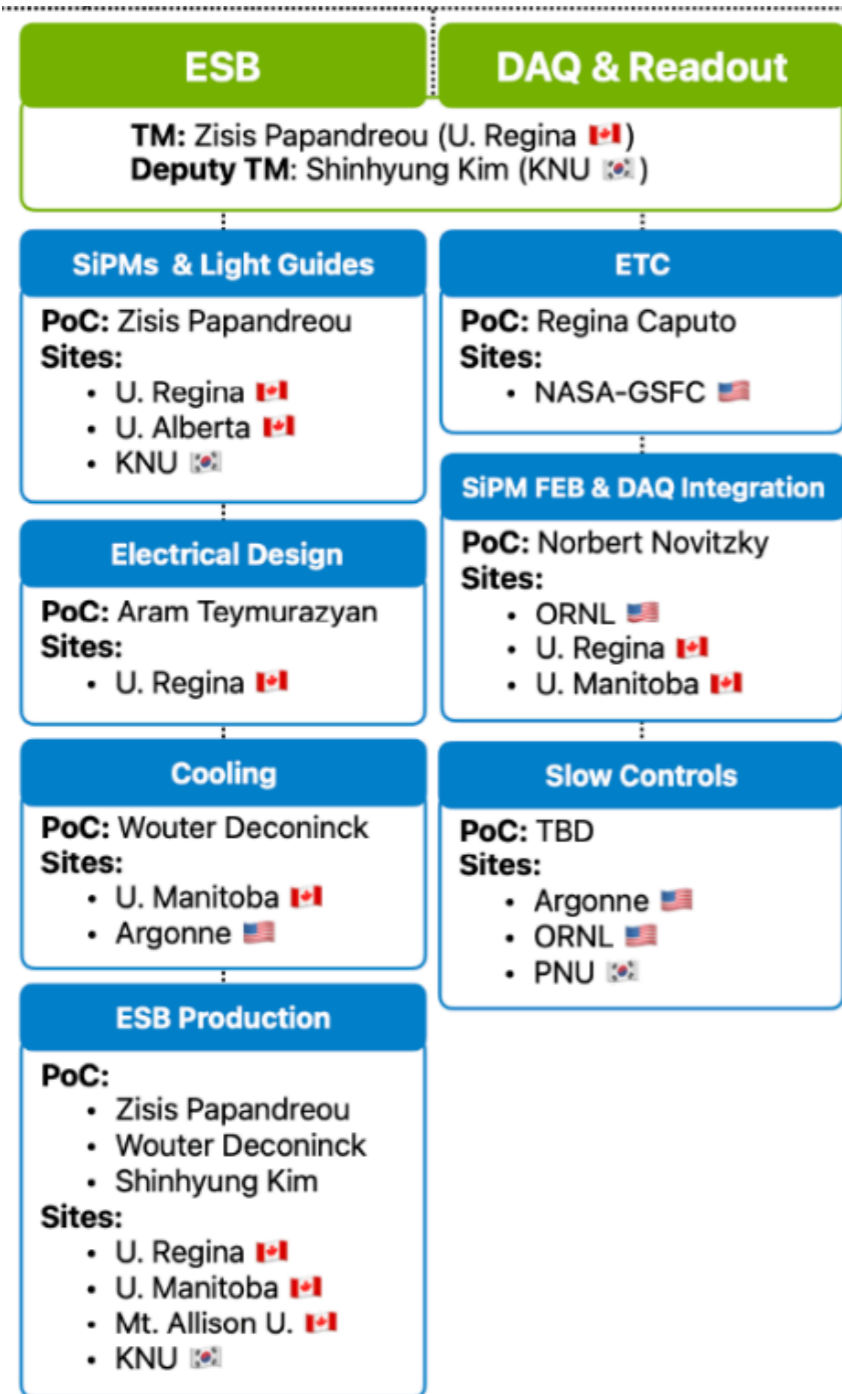
Where we are and where we need to go

Z. Papandreou

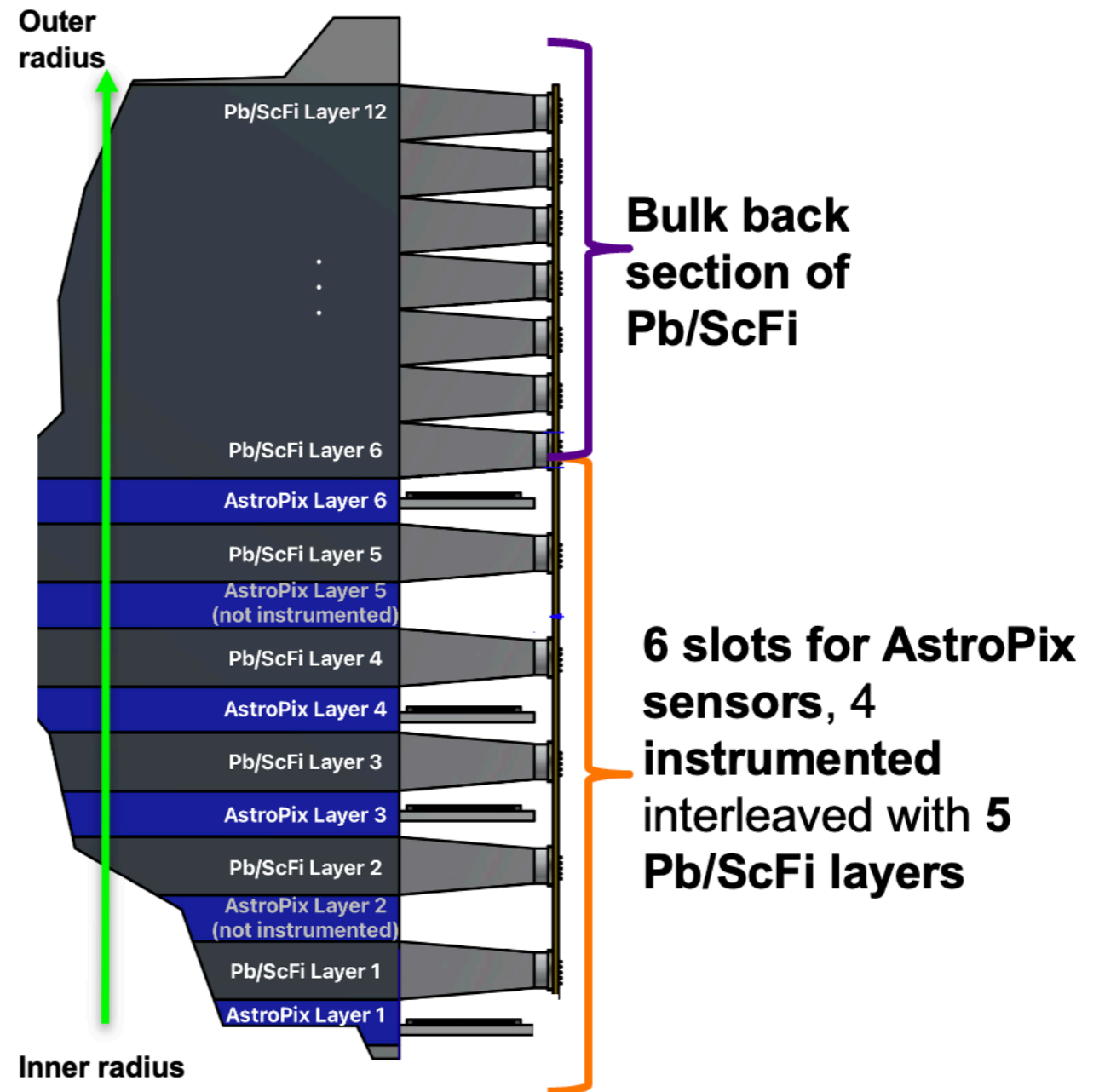
BIC Workshop

June 16, 2026

ESB & DAQ



End-of-Sector Boxes (ESB) & DAQ



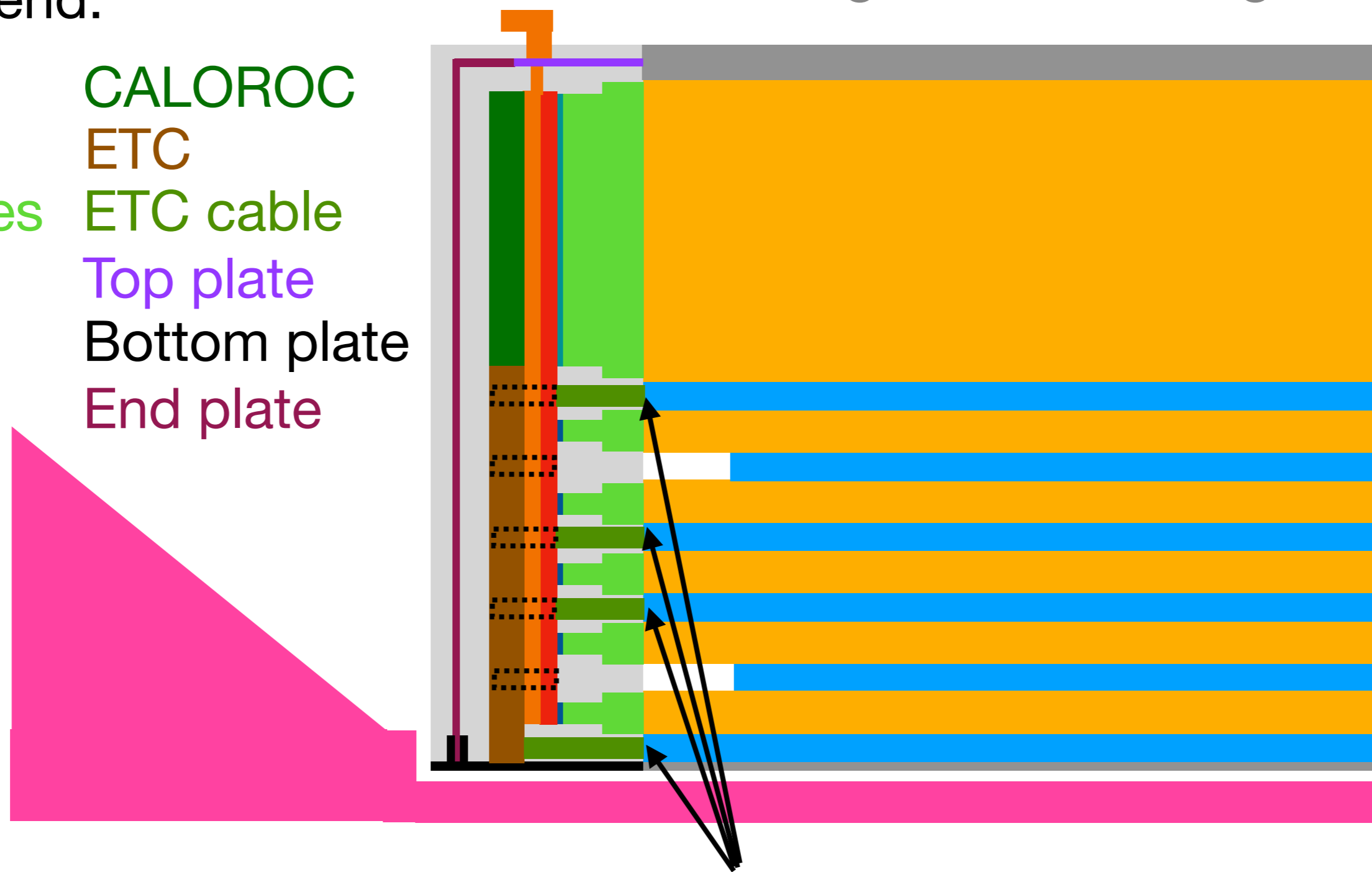
ESB Napkin Sketch - Electron End

Legend:

- PbScFi
- Astropix
- Light Guides
- Cookies
- SiPMs
- Cooling
- CALOROC
- ETC
- ETC cable
- Top plate
- Bottom plate
- End plate

(Nasty)
DIRC

Challenge in servicing



ETC to Astropix connector

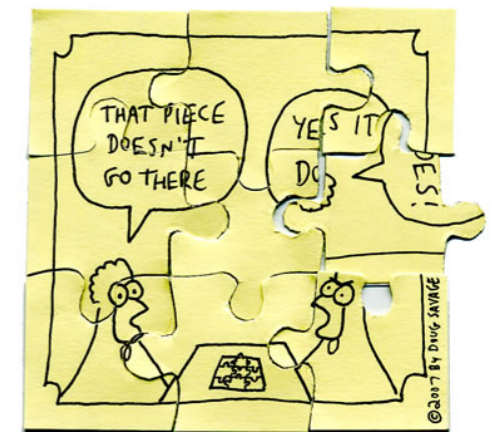
ETC window thru SiPM/Cooling layers

ESB Two-Stage Effort (N. America/Korea)

- **Baby BCAL PED**
 - SiPM Triple-Sandwich Boards - completed; tested on bench; air cooled for electron beam in Hall D (Aug 2026); default
 - SiPM Uni-Boards - to be ready for Hall D (Aug 2026)
 - Box design completed; needs to be checked
 - SFILs, HGCROC - see Maria's talk
- **BIC Preproduction**
 - SiPM Uni-Boards design, construction - Sep-Oct 2026
 - HGCROC and Master PCB Board
 - Box with ETC windows design, construction - Sep-Oct 2026
 - Cooling prototyping - Aug-Sep 2026
 - LGs - Sep-Oct 2026
 - LMS - fall 2026

Summary & Looking Ahead

- Mechanical:
 - Baby BCAL box - design advanced for August 2026 at Hall D; air cooling, new amp/sum boards, signals suitable for HGCROC
 - BIC Box - design in September-October
 - LGs 50mm design being tested; *see Thursday Open Contributions*
 - Cooling design advanced; *see talk this afternoon*
 - LMS underway; *see Thursday Open Contributions*
- Electronics:
 - *See other sessions today and tomorrow. Lot's of discussions this week.*



Source: savagechickens.com