

SiW-ECAL Medium Term Plans

1) Complete the demonstrators : Calorimeters Stacks and Long Slab

- 2023: Uniform ASU's: FEV2.1 + 500 μm 6" wafers + Support Structures
 - Reuse the same boards in \neq configurations
- **Stack Calo1** (15 \times 1 ASU, 24 X_0) Heterogeneous \rightarrow Uniforme
- **Long Slab** (1 \times 8–12 ASUs) Partial \rightarrow Full \rightarrow Δ Exhaust Wafers
- **Stack Calo2** (24 \times 1 ASU, 24 X_0) \rightarrow Δ exhausts the current stock of SK2a
 - Stack Calo2.5 = (12 \times 2 ASUs)
- **Stack Calo3** (15 \times 3 ASUs) = requires add'l SK2a production

1) end'23 + '24 : **BT with all set-ups**
(DESY+CERN)

2) The Stack Calo{1, 2.5, 3} could be used for the **LUXE** experiment :
Study NL QED at XFEL
(e, γ of $E \leq 17$ GeV, 10 Hz, ILC beam structure). Start in 2025 ?

2) ILD+CALICE : Establish specifications for experiments

- 2023 : Fluxes (occupancy, data, heat, ...) from full sim,
for various hypothesis (\mathcal{L} , continuous \leftrightarrow pulsed, partitions, granularity, ASIC techno, modes, precisions, ...)
- 2024 : Establish the specifications of electronics, cooling, ... vs performances.

3) Depending on support : side studies (CFW structure, cooling, 8" wafers, timing layers, power management, ...)