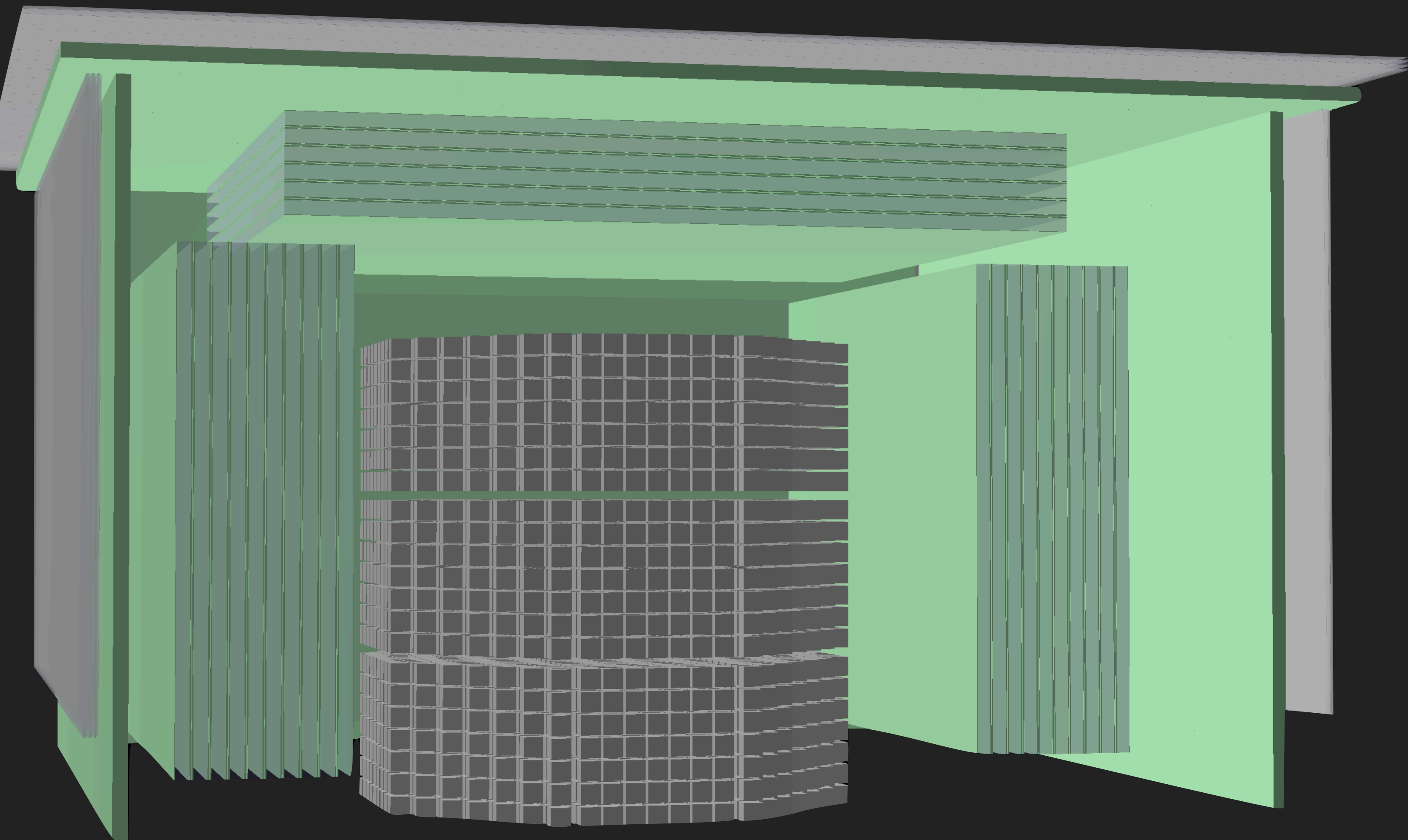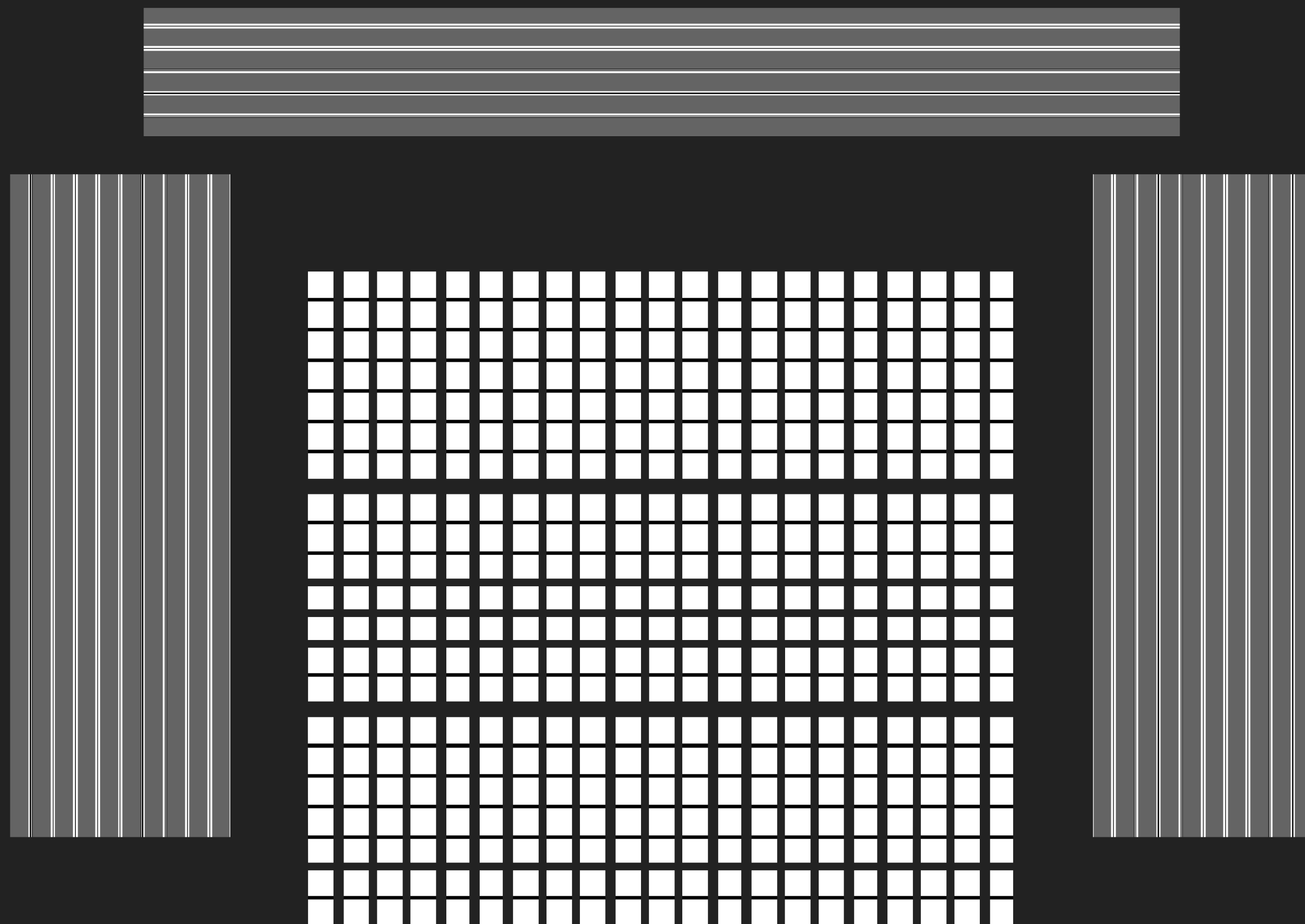# STATUS OF THE SCD

GEOMETRY IMPLEMENTATION

The current SCD implementation is very similar to the STK:

- 9.5cm x 9.5cm x 150um silicon wafers

- 4 single sided top layers - 1.92m x 1.92m

- 4 single sided side layers - 1.73m x 0.86m

- Carbon fiber support structures (might need some re-consideration about placement of silicon layers)
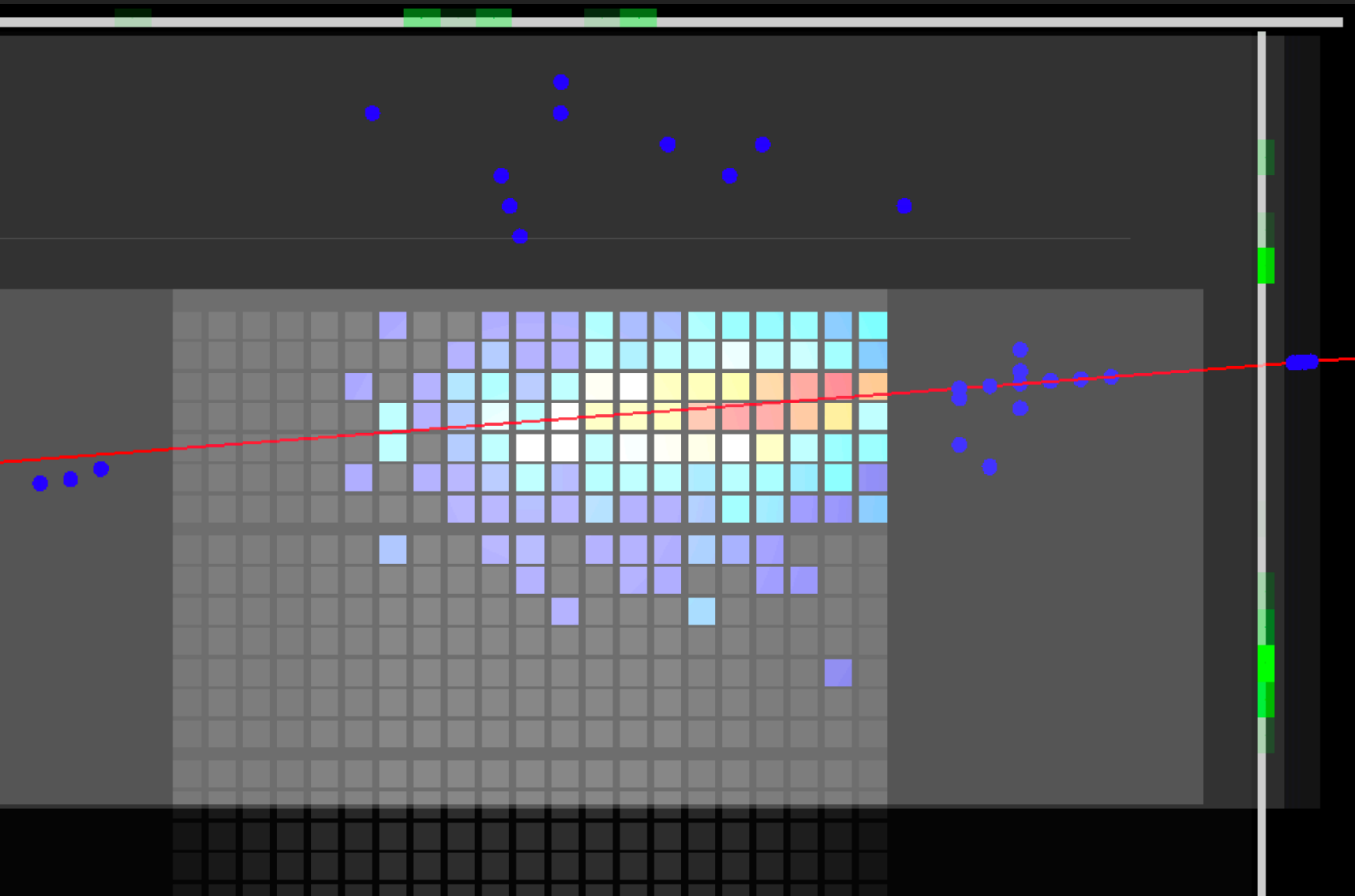
TUNABLE PARAMETERS

There are several parameters that could be changed

- Thickness of the silicon wafers

- Number of layers on top and side (separate)

- Gap between consecutive X Y layers for top and side (separate)

- Gap between two consecutive trays for top and side (separate)

- Production threshold for particles in the SCD wafers

DATA AND PROCESSING

Several processing steps available for the STK

- Particle hits can be digitized into strips (geometrical digitization, no noise or ADC conversion)

- Rough clustering algorithm (no SNR check, just based on EDep)

- Already integrated in Hough tracking algorithm