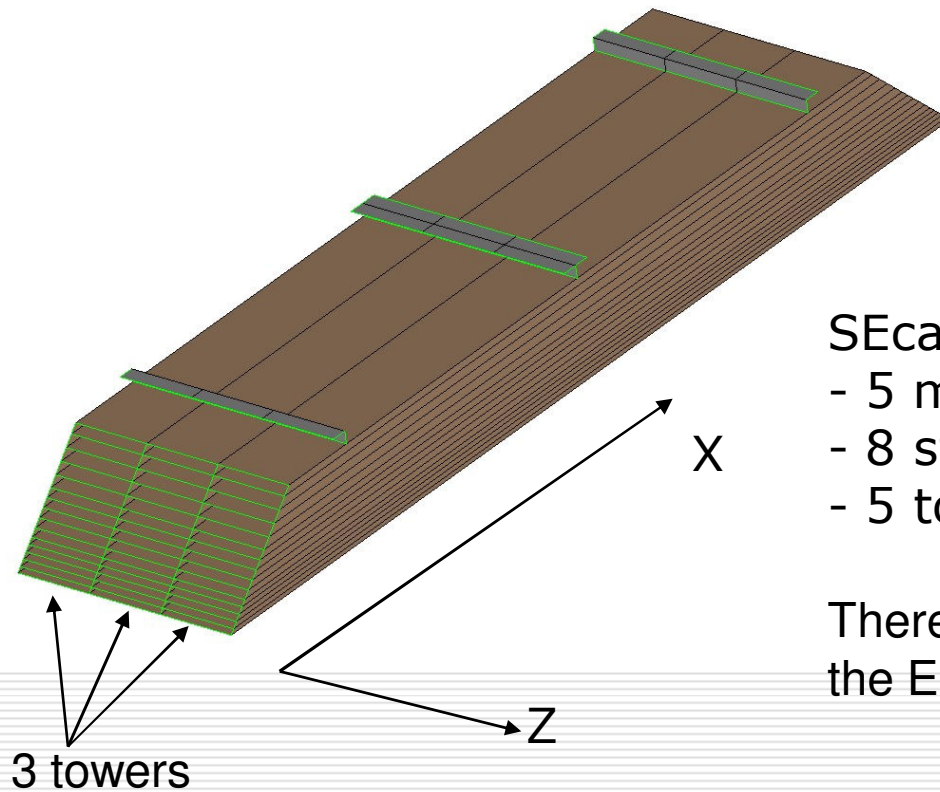


Status of SiW Ecal implementation in Mokka

Paulo Mora de Freitas
Gabriel Musat

ILD Software meeting, 27 January 2010

EUDET Ecal Module



SEcal03 barrel implementation:

- 5 modules along **Z**
- 8 staves / module
- 5 towers / module along Z

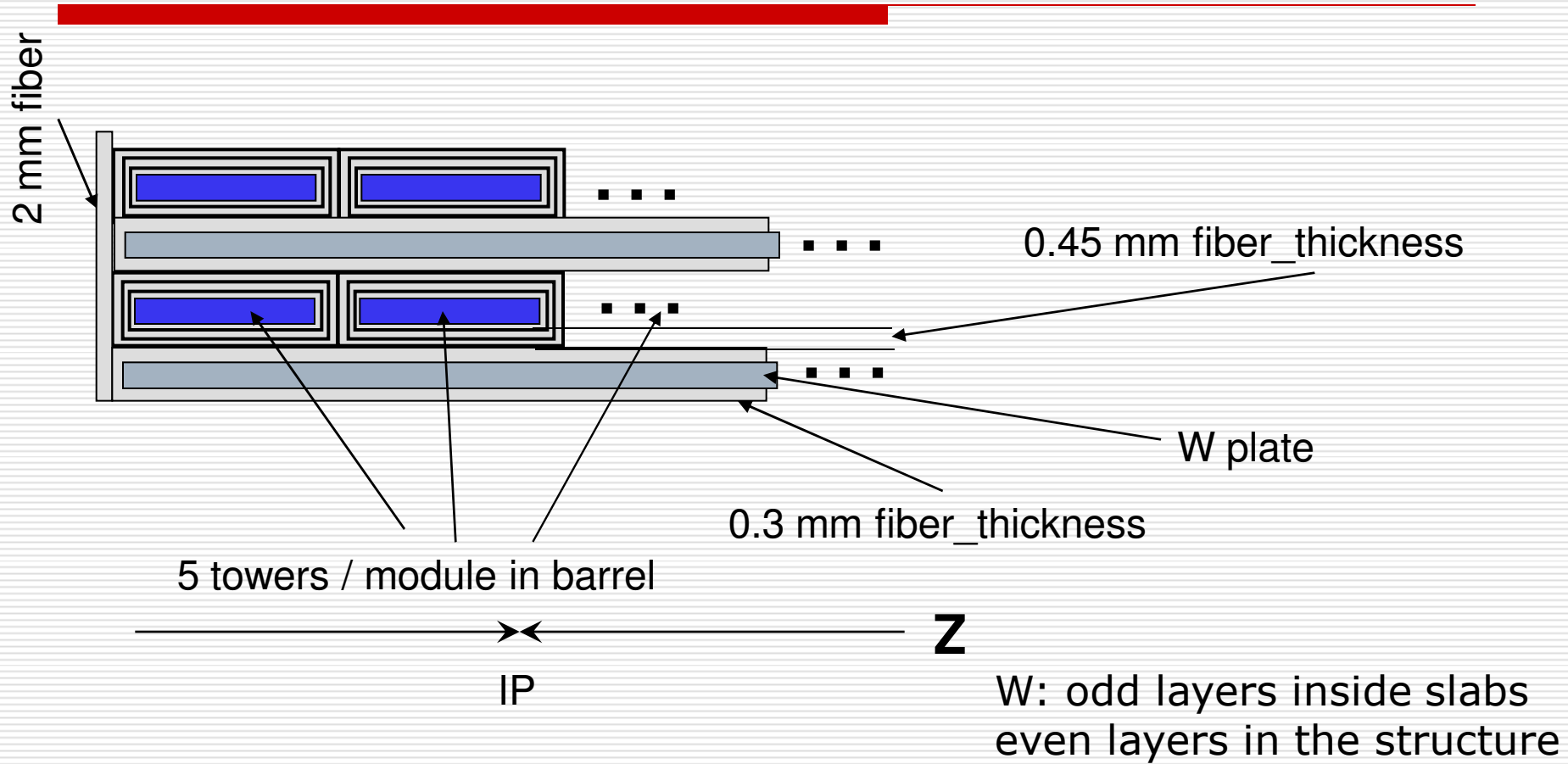
There still are things to be defined in the EUDET module design

SiW Ecal : driver SEcal03

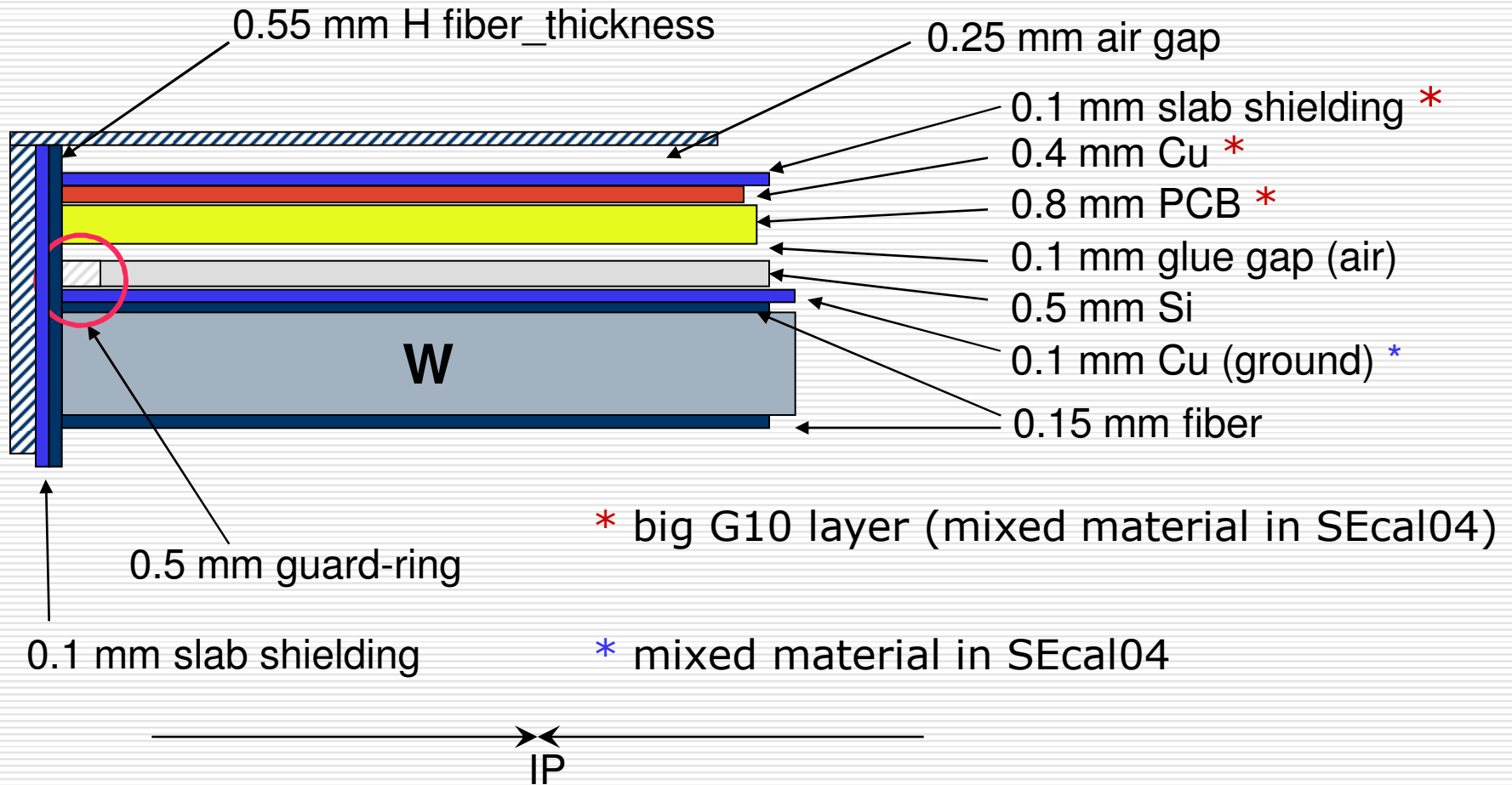
- Absorber: W (can be replaced with Pb)
20 layers of 2.1 mm + 9 layers of 4.2 mm
- Sensitive: Si (can be replaced with polystyrene)
Si thickness 0.5 mm
Si wafers with 18x18 virtual cells (5 x 5 mm)
(step limit) and 0.5 mm guard ring
(if space left in X: wafers with variable number of cells)

Ecal barrel module

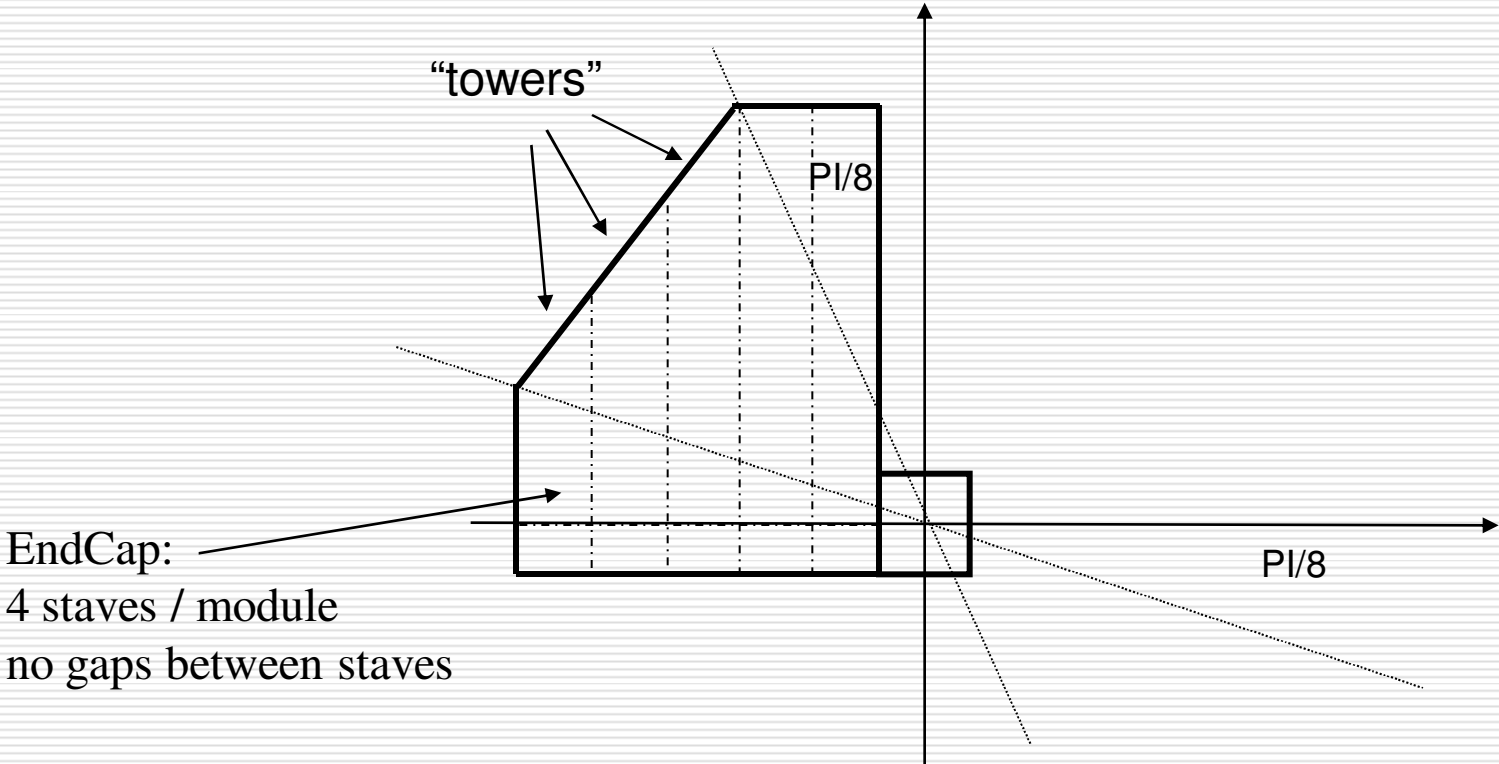
(1 slab per alveolus, 2 wafers per slab in Z)



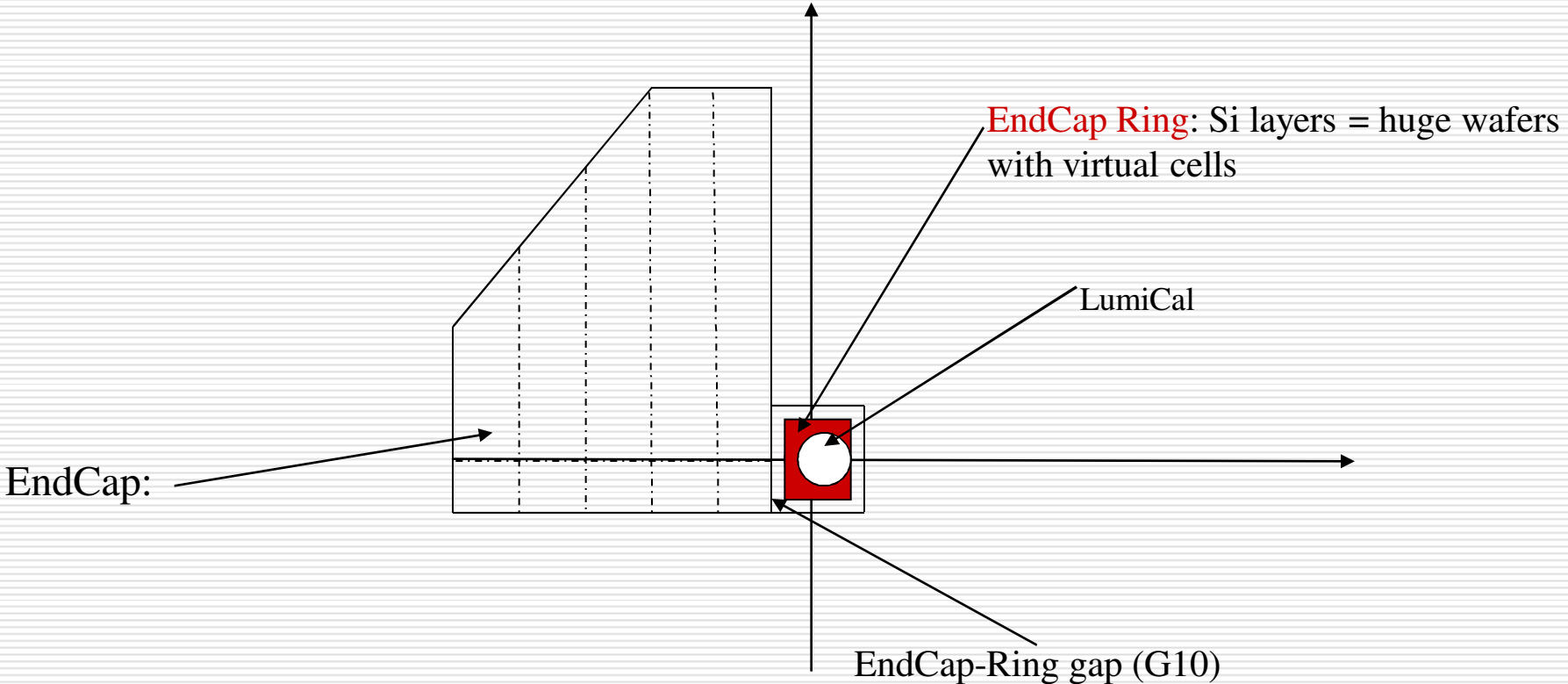
Detail Alveoli & “H” slab structure:



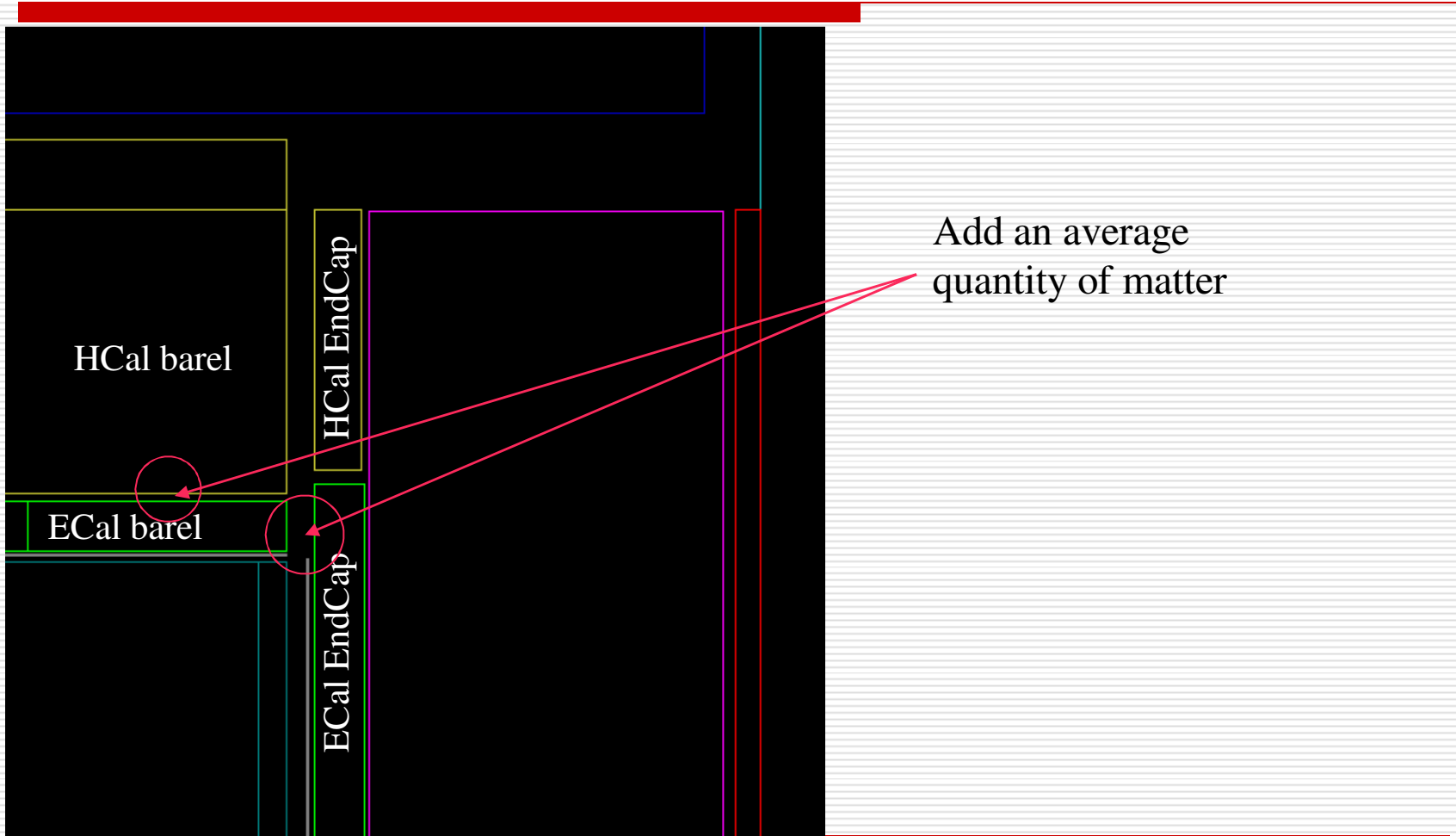
Ecal EndCap Module



Ecal EndCap Ring



Ecal-Hcal and Ecal Barrel - Ecal EndCap regions



ILD Software meeting, 27 January 2010

Scaling the Ecal model

- parameters can be changed in the steering file
- example:

```
/Mokka/init/globalModelParameter Ecal_nlayers1 15
```

```
/Mokka/init/globalModelParameter Ecal_radiator_layers_set1_thickness 3 mm
```

```
/Mokka/init/globalModelParameter Ecal_nlayers2 6
```

```
/Mokka/init/globalModelParameter Ecal_radiator_layers_set2_thickness 6 mm
```

```
/Mokka/init/globalModelParameter Ecal_nlayers3 0
```

```
/Mokka/init/globalModelParameter Ecal_Si_thickness 0.8 mm
```