



Laboratoire d'Annecy-le-Vieux
de Physique des Particules

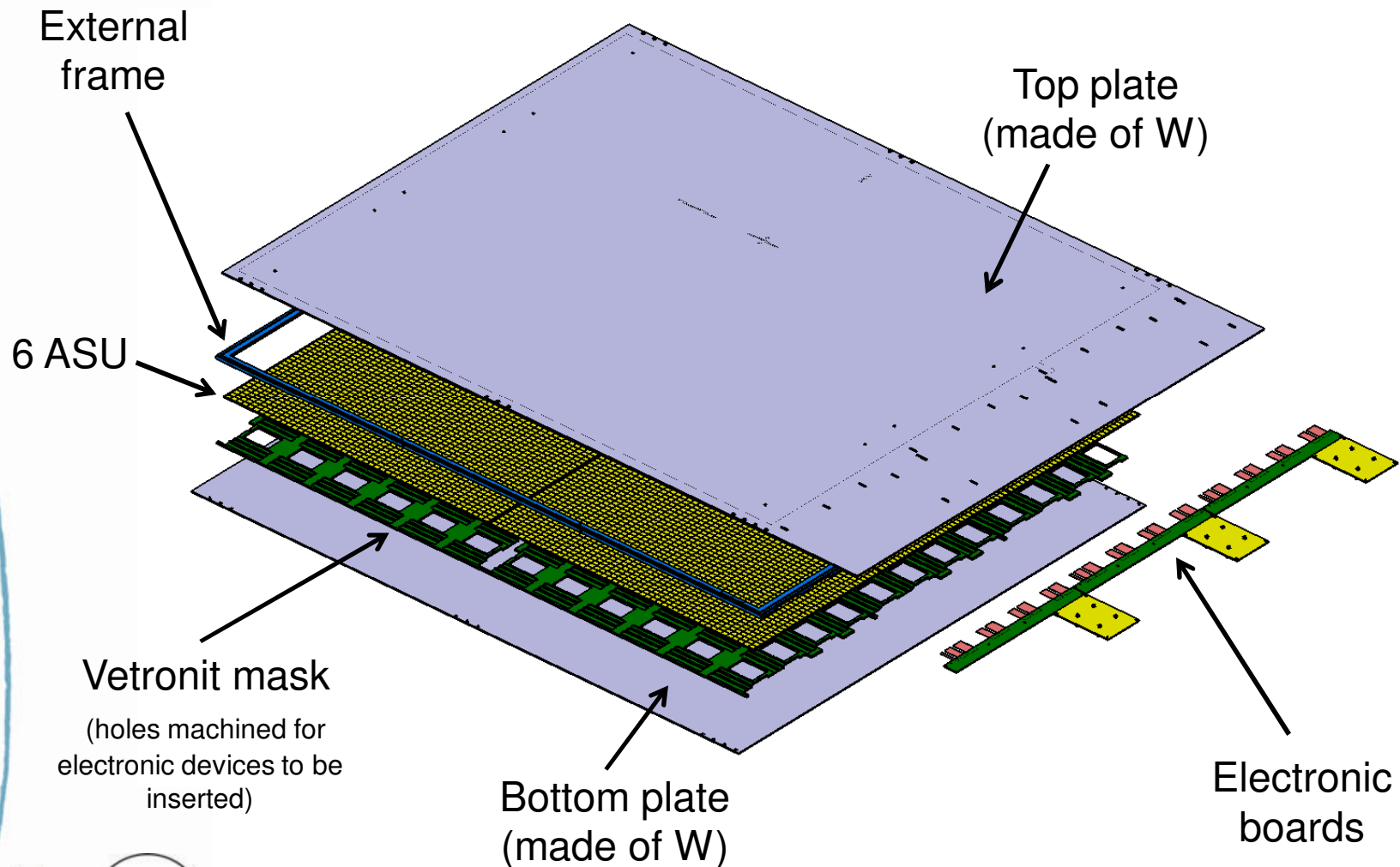
Micromegas chamber

1 m² design

W based HCAL prototype meeting

2010, March 2nd

1m² Micromegas chamber



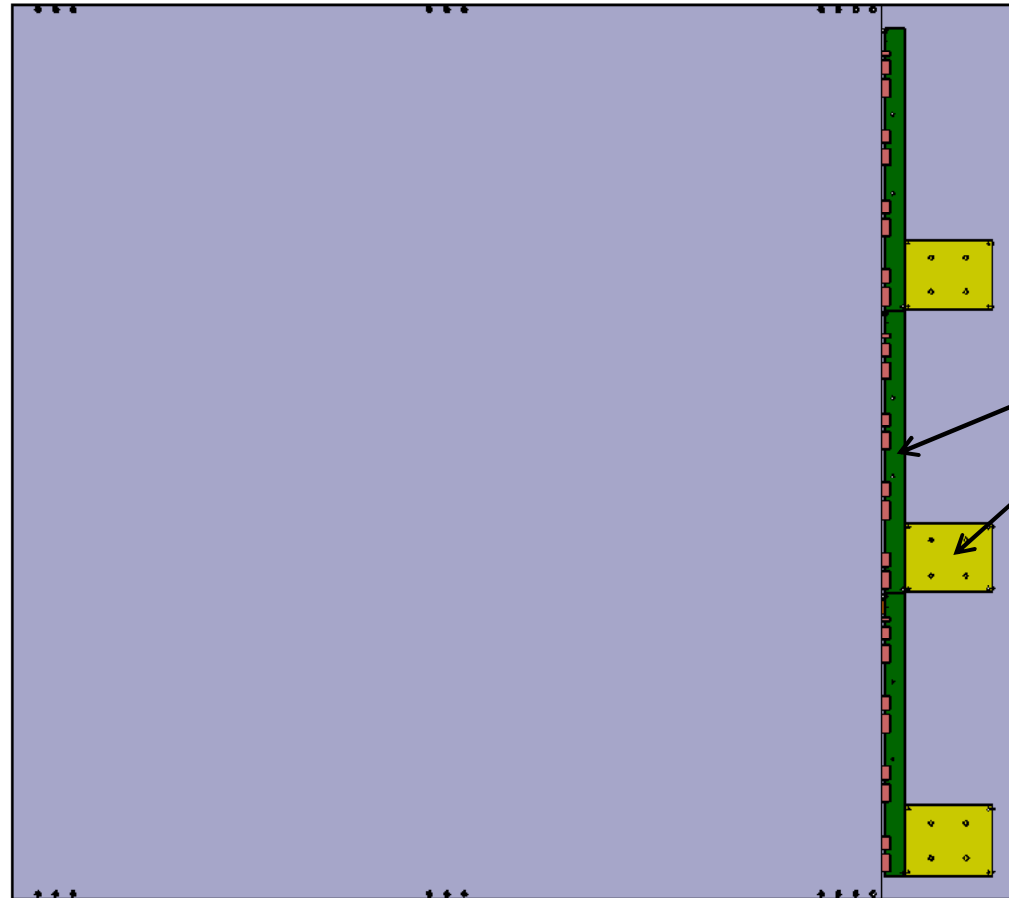
External dimensions – option 1

OPTION 1:
Large plates with holes

1024 mm

1160 mm

999 mm



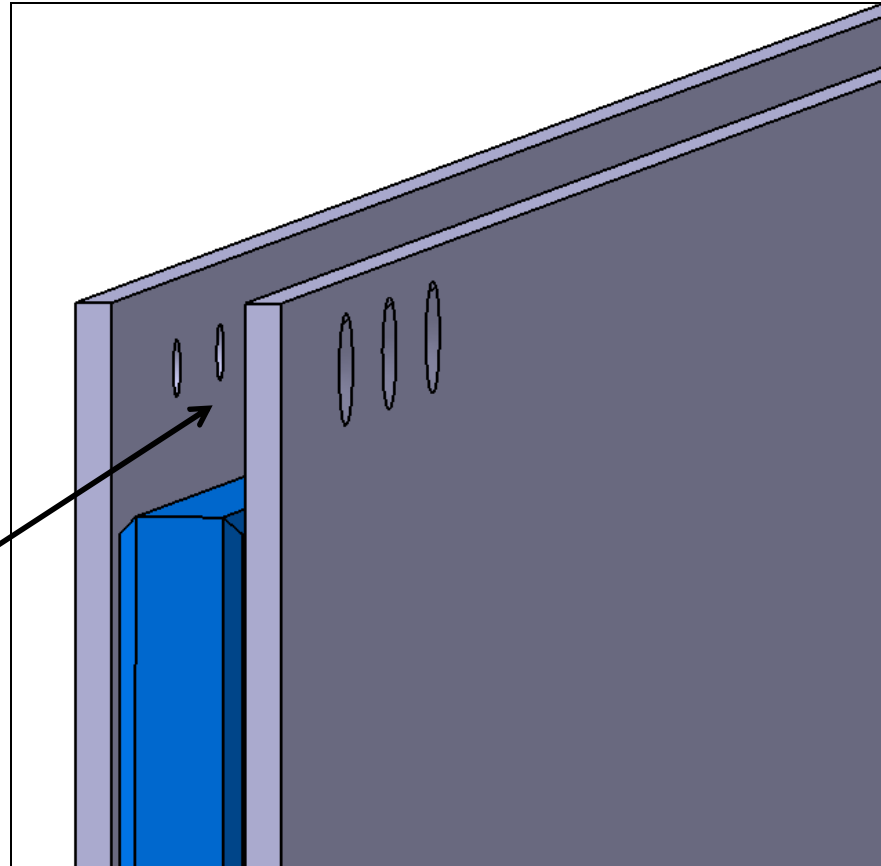
Electronic boards

(inter_DIF & DIF)

External dimensions – option 1

OPTION 1:
Large plates with holes

Space and holes
to hang the
chamber (rail)



External dimensions – option 2

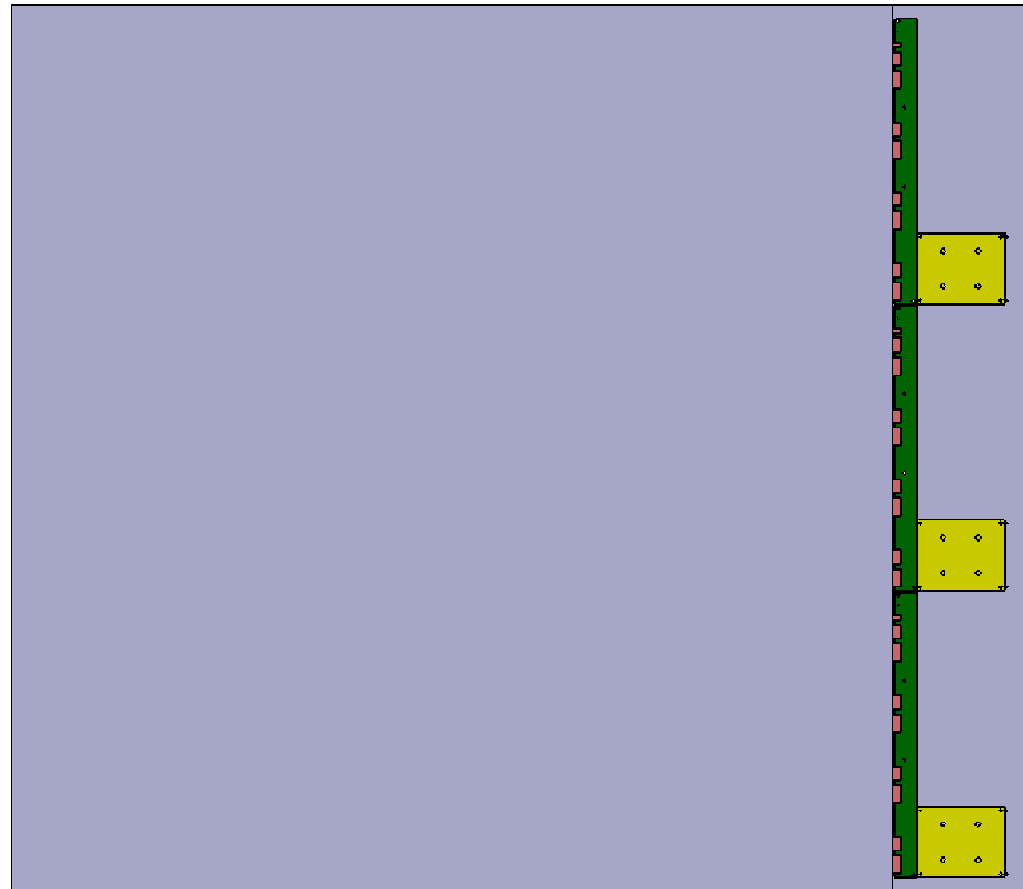
OPTION 2: **Smaller plates**

~~1024 mm~~

1004 mm

1160 mm

999 mm

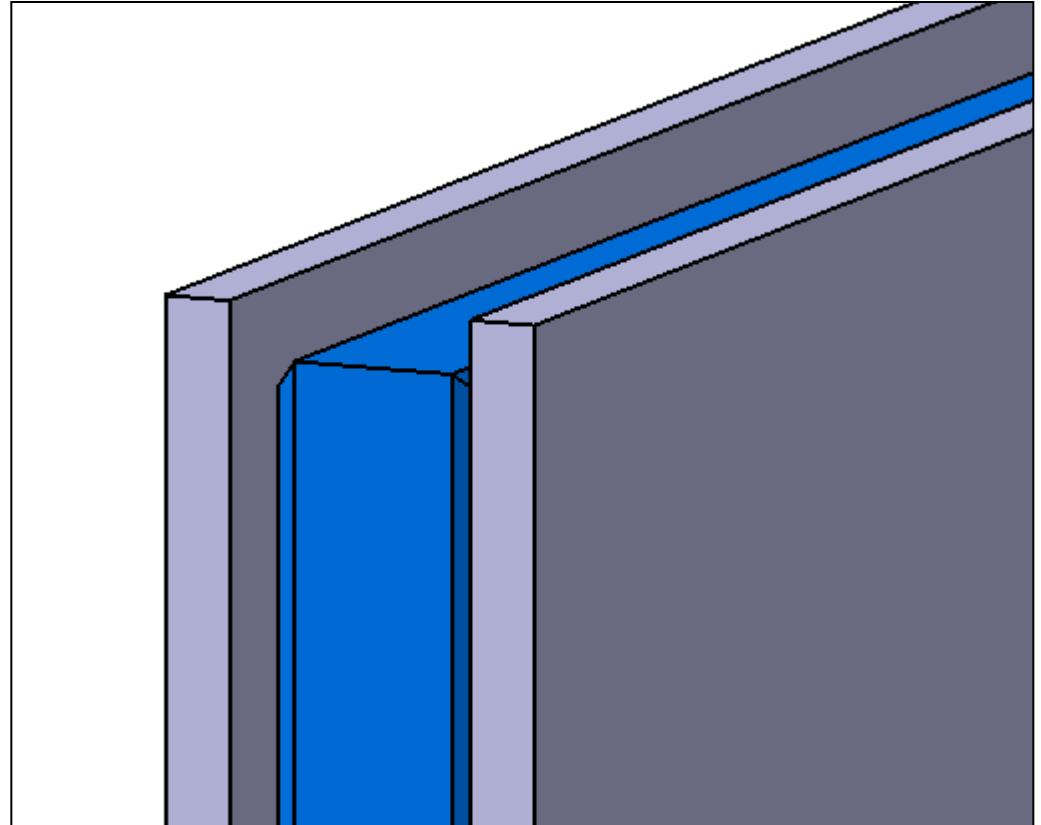


External dimensions – option 2

OPTION 2: **Smaller plates**

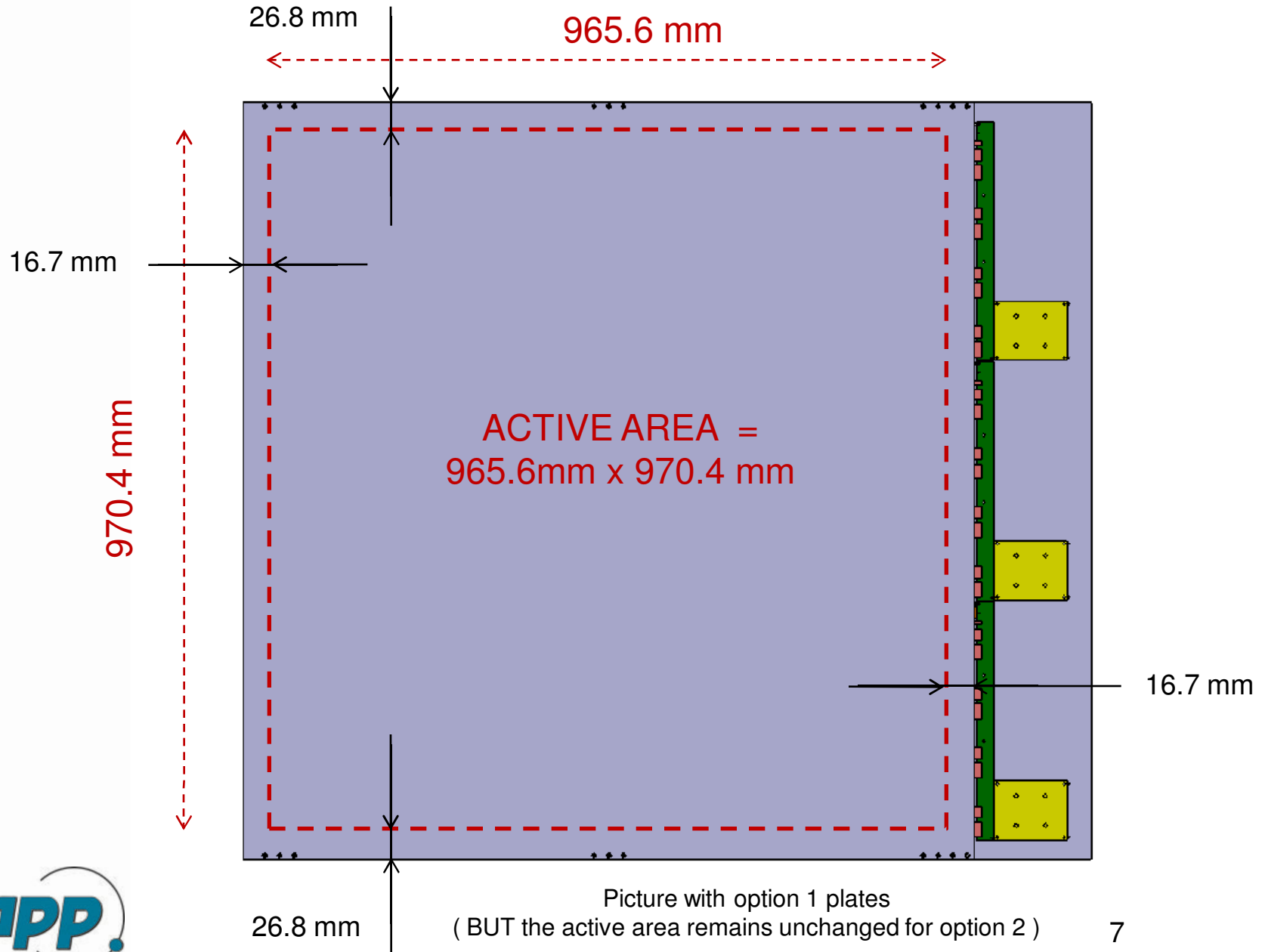
Reduce the plates size

- reduce the volume without detection
- get the active area as close as possible to the chamber overall dimensions



Insertion of the chamber like a cassette

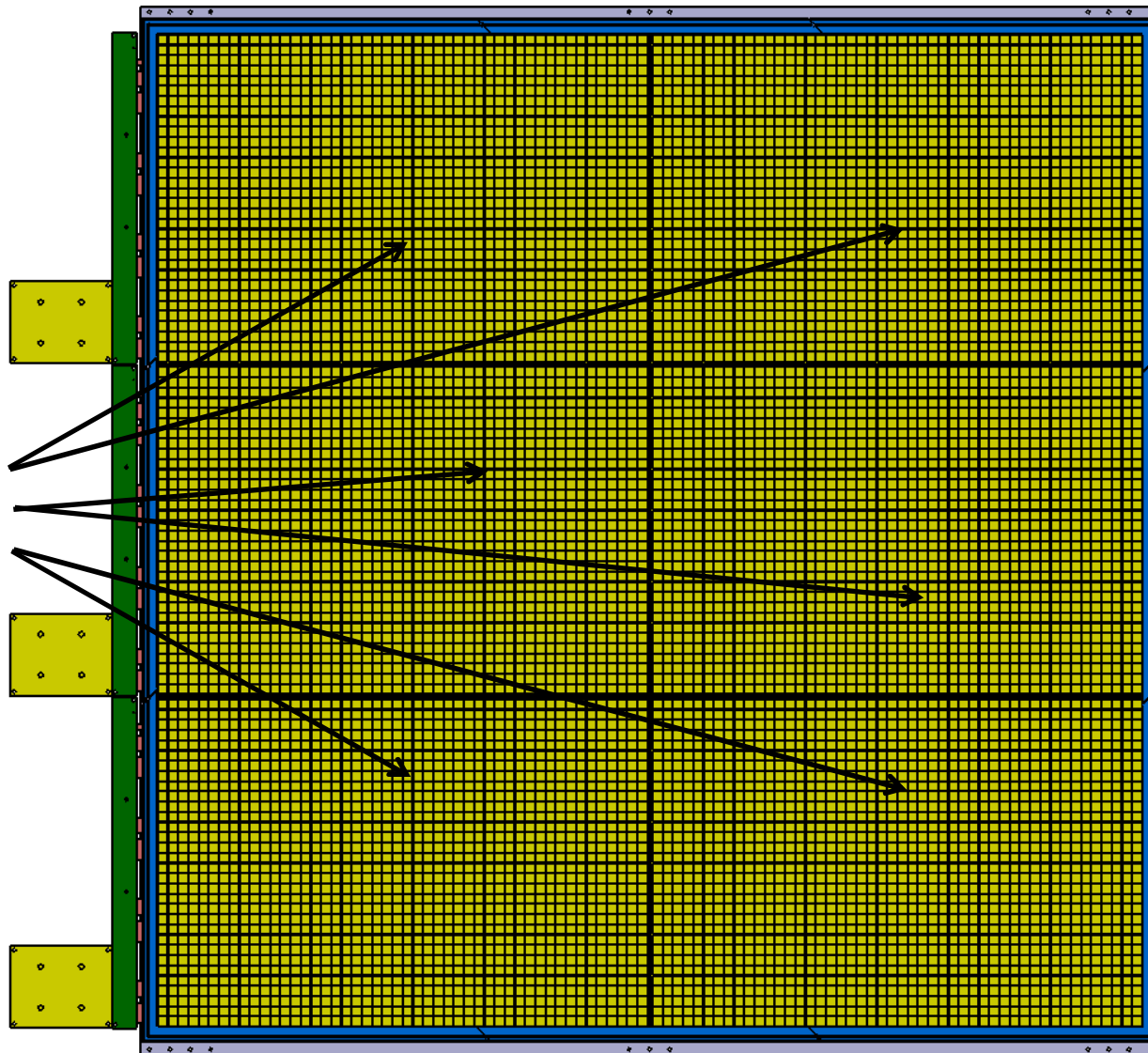
1 m² Micromegas chamber



1m² Micromegas chamber

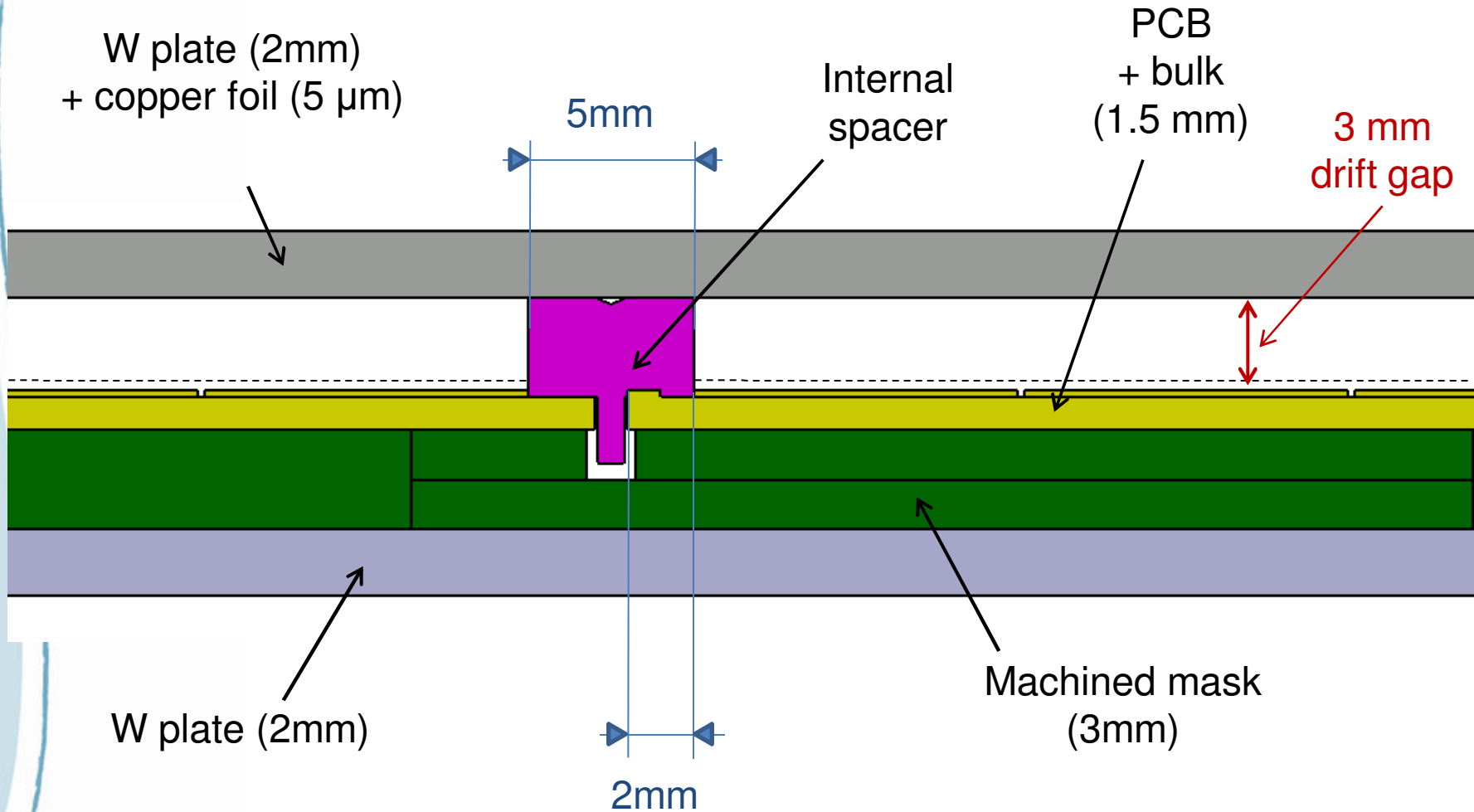
Top plate removed

6 ASU
(pads side)



1 m² Micromegas chamber

[Chamber cross section]



Chamber total thickness
 $= 2 + 3 + 1.5 + 3 + 2 = 11.5 \text{ mm}$

1 m² Micromegas chamber

Dimensions of the electronic boards

