

CERN workshop upgrade Aida

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CERN workshop upgrade for MPGD

- **First step: buy and install 9 machines.**
 - The 9 machines are at CERN
 - 6 are installed and commissioned: (large laminator, large oven, photoresist stripping for GEMs, electro-chemical etching line for GEMs, large UV lamp, Polyimide etching line).
 - 3 are still not installed (photoresist development, Copper etching, photoresist stripping).

They will be installed directly into the new building 107

This decision does not affect the running R&Ds

- **Second step:**
 - redefine all the process parameter related to the new equipments
 - Build some prototypes of the # detectors

We have built large detectors for CMS , Kloe , Jlab, ATLAS...

TE/MPE/EM Workshop upgrade

- An agreement was reached with CERN management in 2010 to purchase the subset of machines necessary to carry out R&D on large size GEM (2m x 0.5 m) & Micromegas (2m x 1m) and the associated large size read-out boards in the current CERN TE/MPE/ME facility.

GEM	market survey	call for tender	order	received	ready
– 1 continuous polyimide etcher	x	x	x	x	06/2012
– 1 Cu electroetch line	x	x	x	x	06/2012
Micromegas					
– 1 large laminator	x	x	x	x	06/2011
– 1 large Cu etcher	x	x	x	x	postponed
– 1 large UV exposure unit	x	x	x	x	06/2011
– 1 large resist developer	x	x	x	x	postponed
– 1 large resist stripper	x	x	x	x	postponed
– 1 large oven	x	x	x	x	06/2011
– 1 large dryer	x	x	x	x	06/2011



- UV exposure unit limited to 2m x 0.6m → 2.2m x 1.4m



- Resist developer limited to 0.6m width → 1.2m
- Resist stripper “
- Copper etcher “
- Dryer “



- GEM resist stripping limited to 1m → 2m
- GEM electro etch “



- GEM polyimide etch limited to 1m → 2m



- Ovens limited to 1.5m x 0.6m → 2.2m x 1.4m



- Laminator limited to 0.6m width → 1.2m



- Ovens limited to 1.5m x 0.6m → 2.2m x 1.4m
- In building 102 .



- UV exposure unit limited to 2m x 0.6m → 2.2m x 1.4m
- In building 254



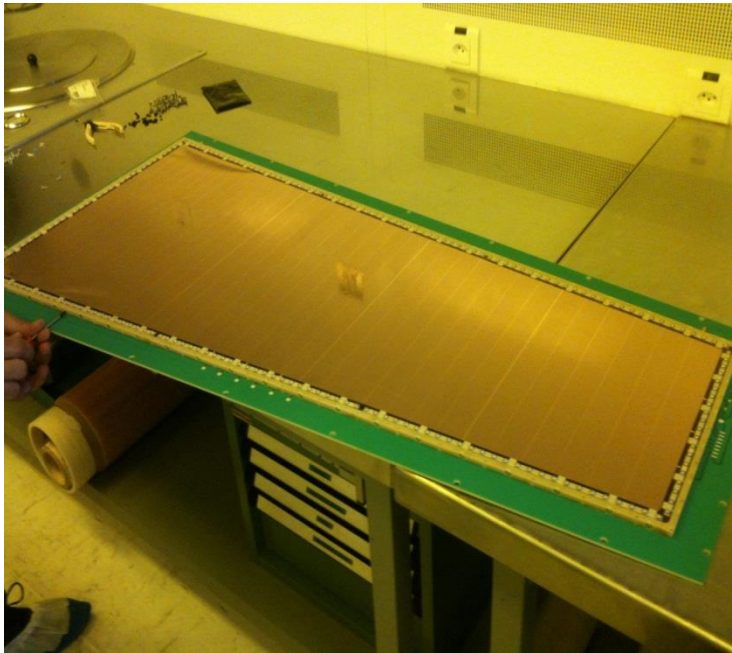
- GEM polyimide etch limited to 1m x 0.5m → 2m x 0.5m
- In building 254



- Laminator limited to 0.6m width → 1.4m width
- In building 102 .

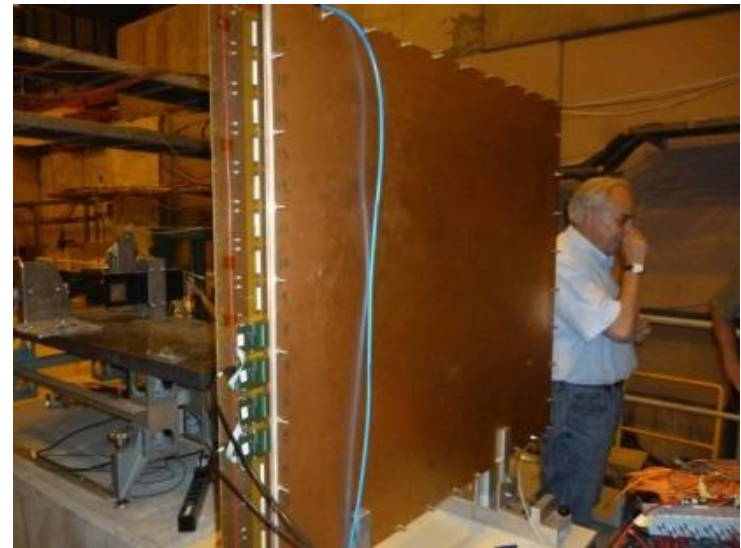


- Resist stripping limited to 1m x 0.5 → 2m x 1m
- In building 102 .



- CMS GE1/1 GEM detector
- 1m x 50cm
- 5 detector produced

- ATLAS Muons Micromegas detector
- 1m x 1m active area (1 detector produced)
- 2m x 1m



CERN funded the machines. AIDA funded 2 years of a technician (240 kCHF).

- Julien Burnens, 6 months
- Michal Zientek, 12 months

Looking for somebody for the 6 remaining months.