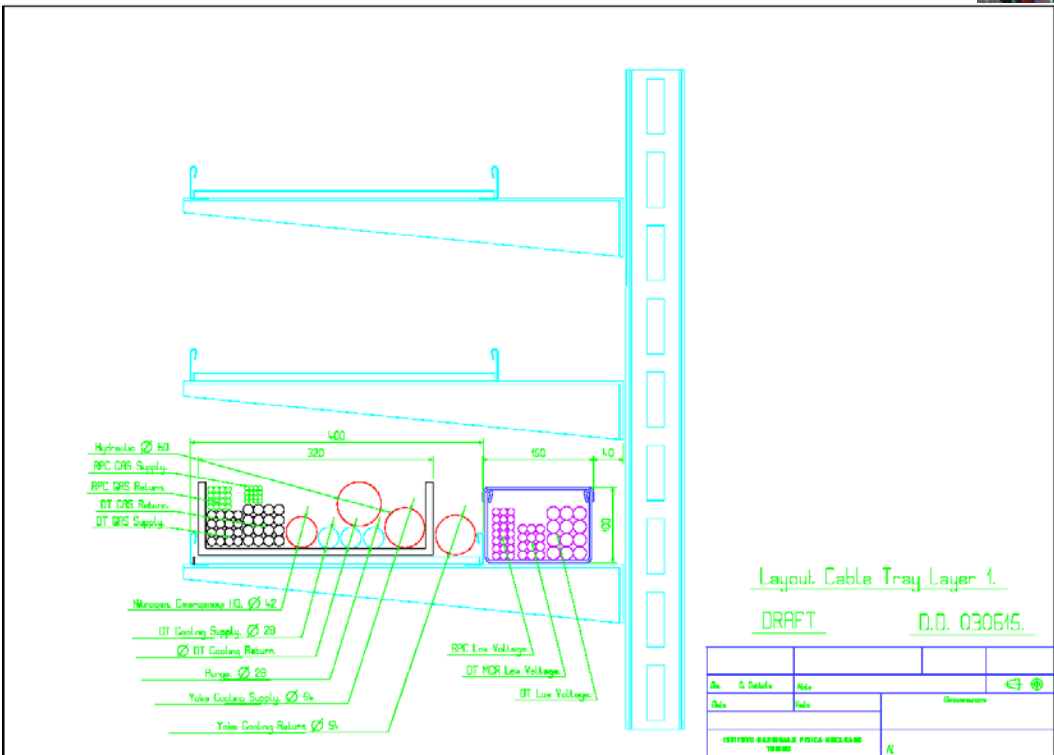
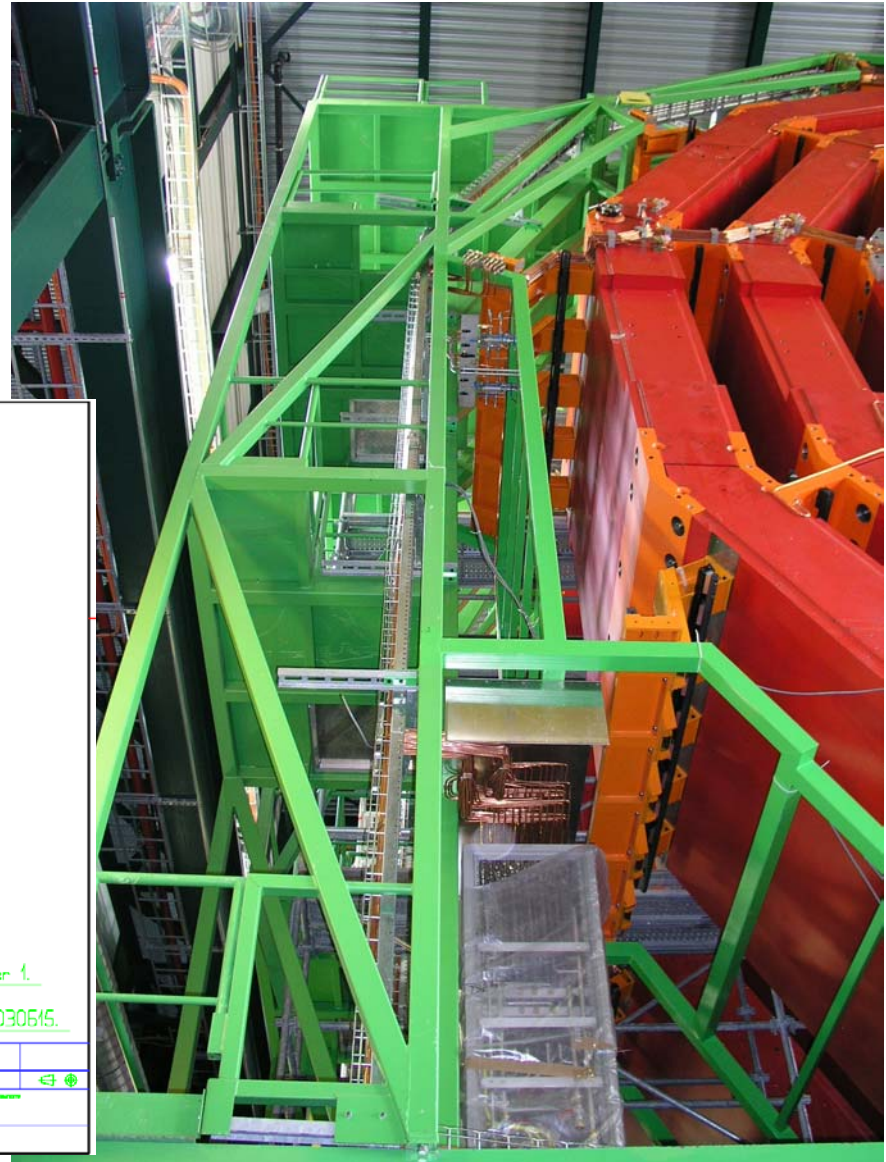


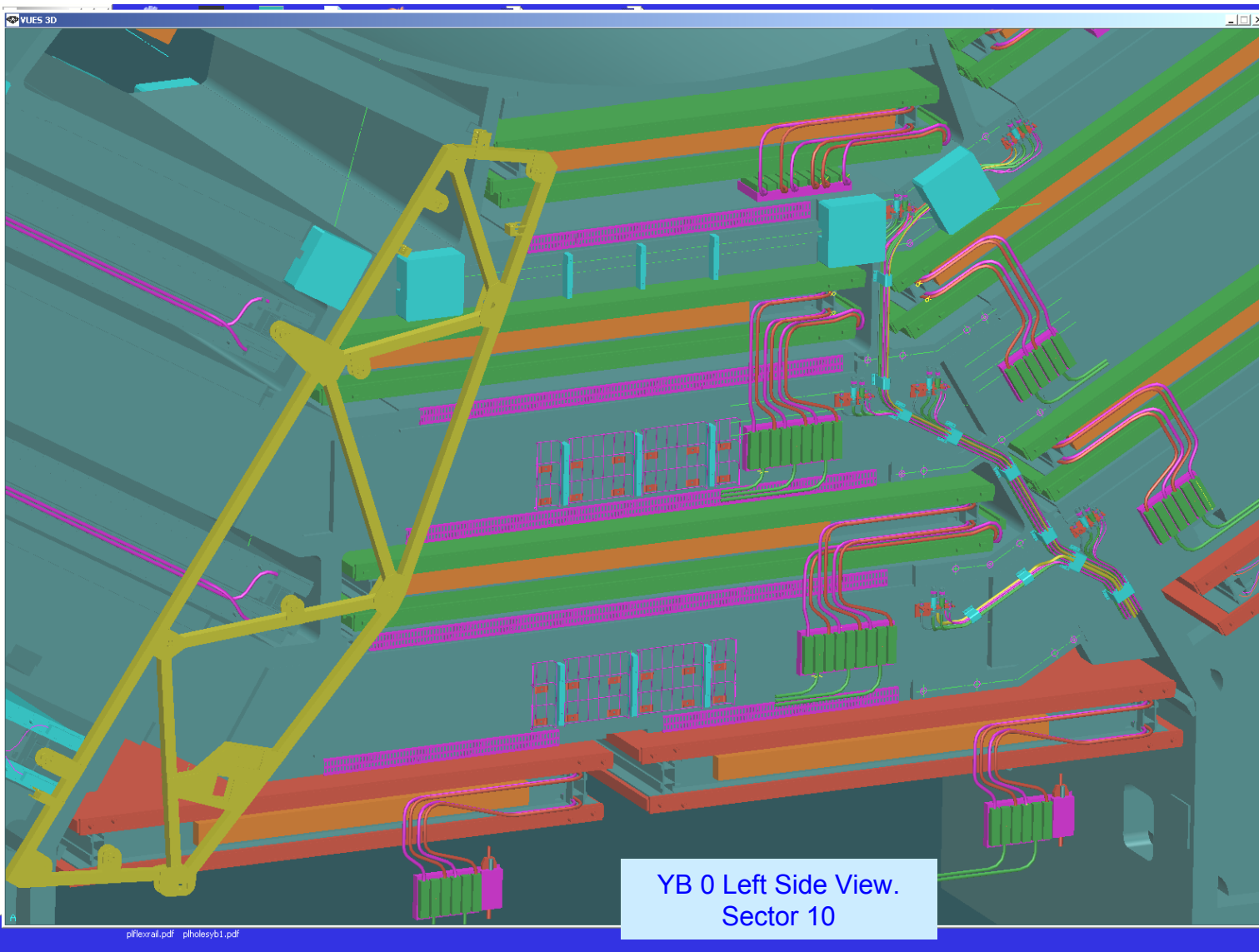
## Results of cabling test on YB +2.

P.Passeggio, L. Roscilli, F. Montecassiano,  
M. Wensveen, D. Dattola.

1. Cableways
  - Periphery
  - Radial
2. Test cabling on YB +2
3. Conclusion
4. Added
  1. MB1 Support Structures
  2. Services fixing holes

- 1<sup>st</sup> layer: Gas, Cooling, N2 Inert., DT-RPC Low Voltage in custom design cableway cooled by contact with yoke return cooling manifold.
  - 2<sup>nd</sup> layer: HV cables
  - 3<sup>rd</sup> layer: Signal cables
- Cablofil wires mesh could be a good choice , optical fibers will need a protective shield.
- Cross section and minor details to be fixed before order the components.





All the fixing elements of cableways defined for mobile wheels. Result of cabling test will be useful to fix design before to order materials and start mass production.

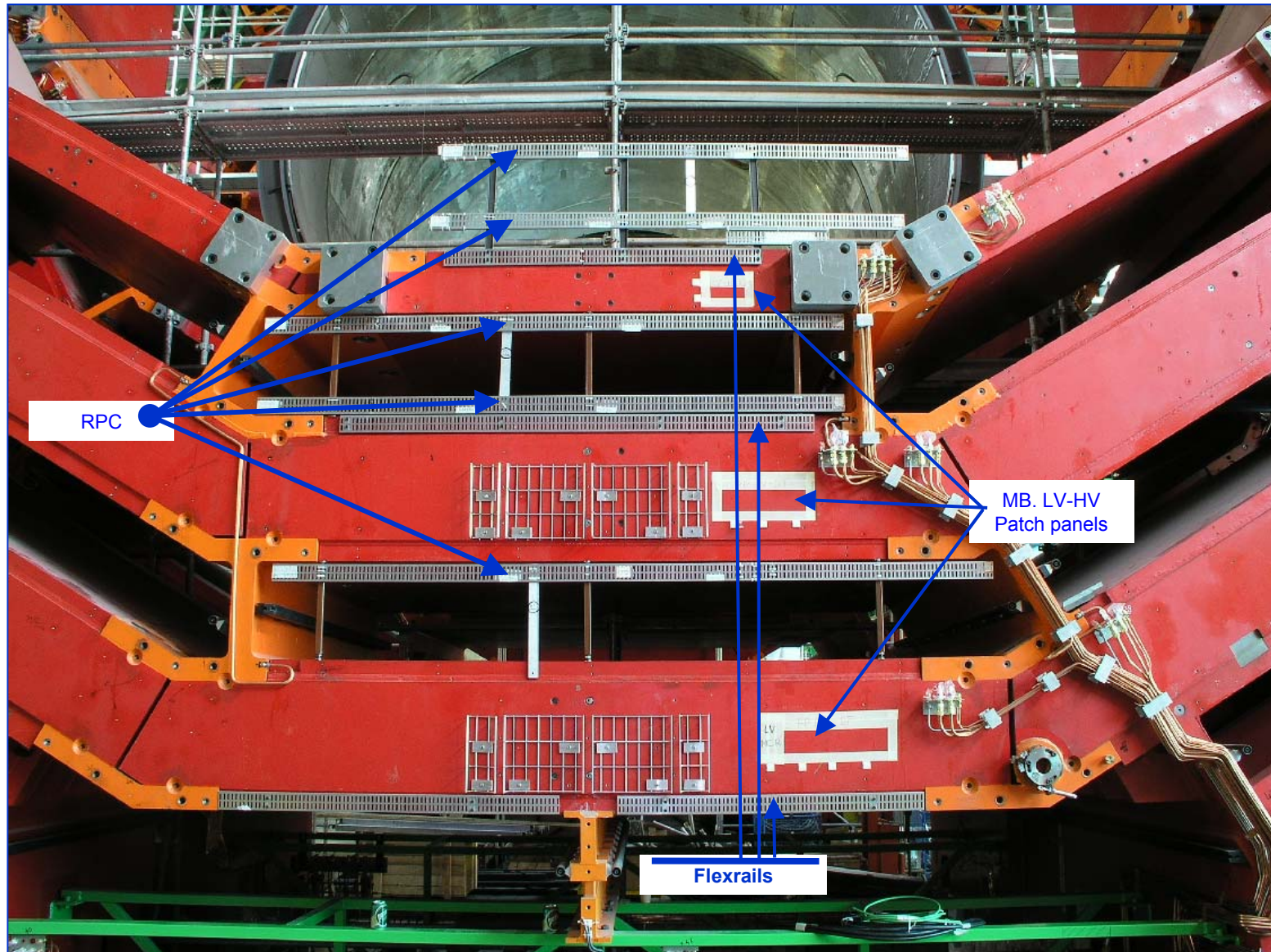
Thermal screen still to be defined. Main uncertainty concern integration with removable services on YB 0.

Production of one sample for test would be recommended

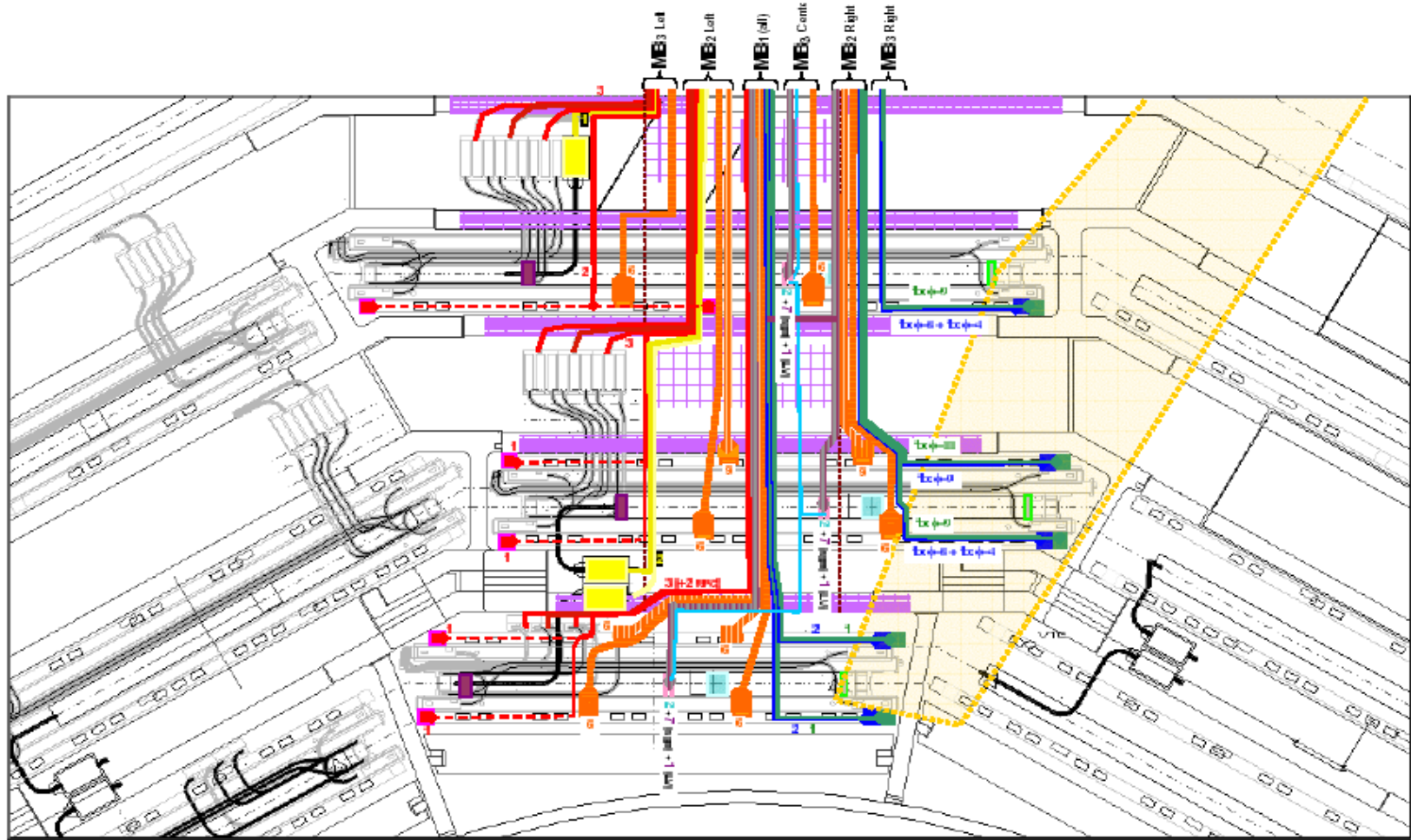
HV Patch Panels drawings to be updated and finalized.

Sample for a couple of sectors can be realized for more detailed tests.





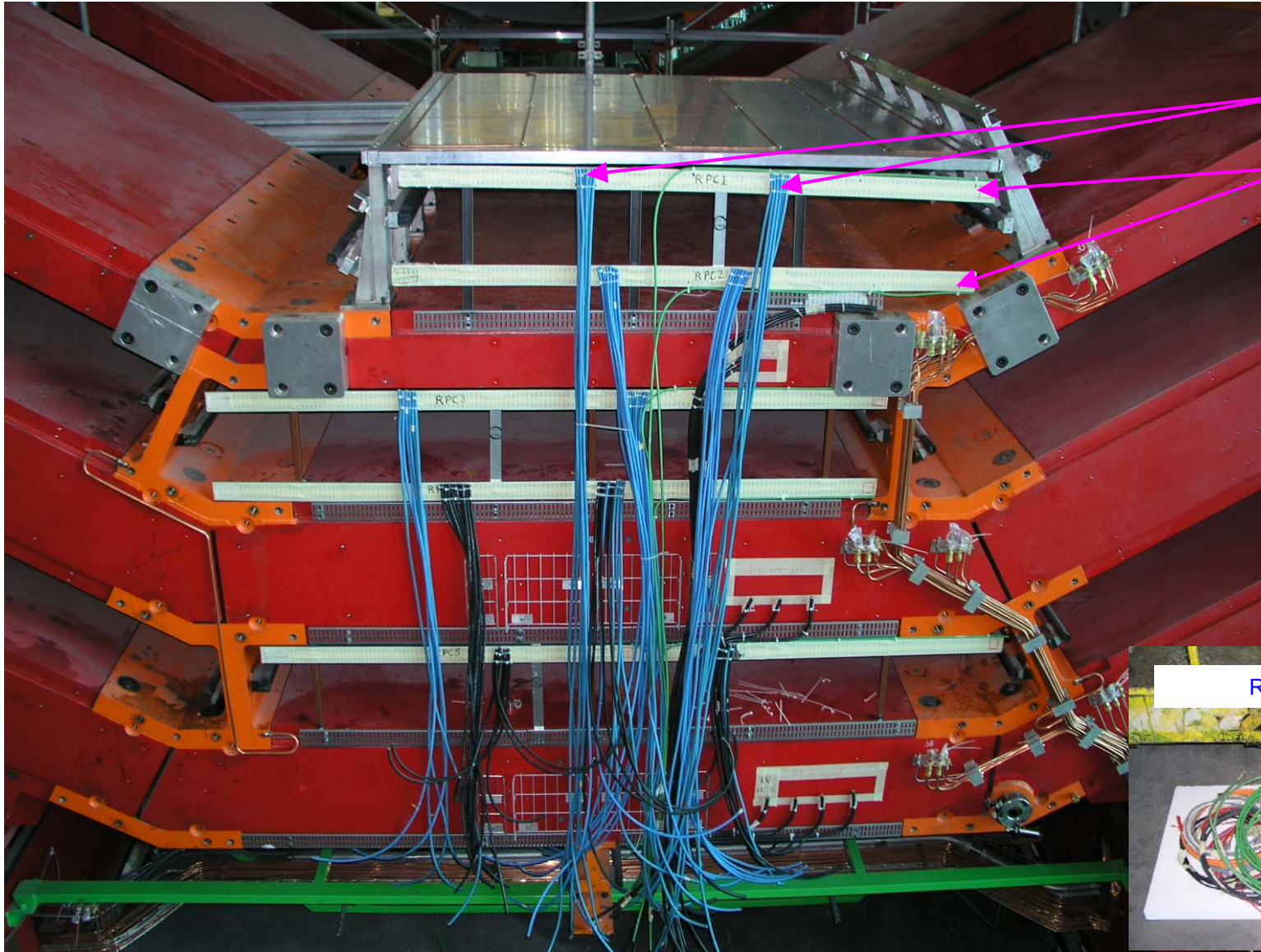
**MB<sub>123</sub> and RB<sub>123</sub> ZpL's Radial Cabling by channels** (First proposal to be used in Wheel +2 Sector 4)



NB None alignment barrel cables will run in the radial c-tray.



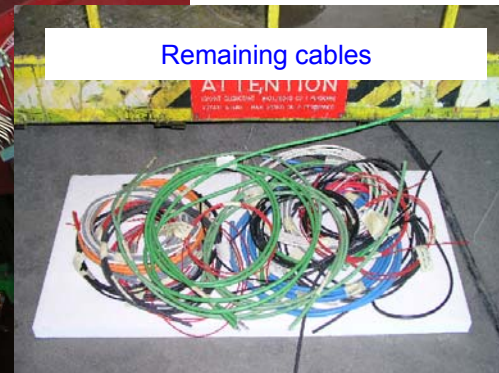




RPC Signal

RPC HV

Remaining cables



- Even if still to be completed, results of experience clearly show that:
  - Is very hard and ineffective to handle bundle of cables properly.
  - It must be lay down one by one, starting from the end connectors towards the entrance zone on the periphery cableway, where a limited extra length can be make up.
  - End cable connectors and related plug on detector must be unambiguously marked, terms like “left” and “right” should be avoided.
  - It is important to define, from now, a precise cables routing to apply unvarying on all sectors.
  - Documents like schematic and photo that depict detail of the original cables routing can be useful in case of cables reinstallation.
- In case of future tests would be relevant that:
  - Detectors Front-End, with connectors position, protrusion on the cover, cables running along the cover, HV and LV patch panels should be better defined.
  - Cables should be longer, to allow routing at least till the periphery cable tray.
- A significant improvement might be to have as much as possible, real components, as already suggested time ago by A. Benvenuti.



## Status and installation plan

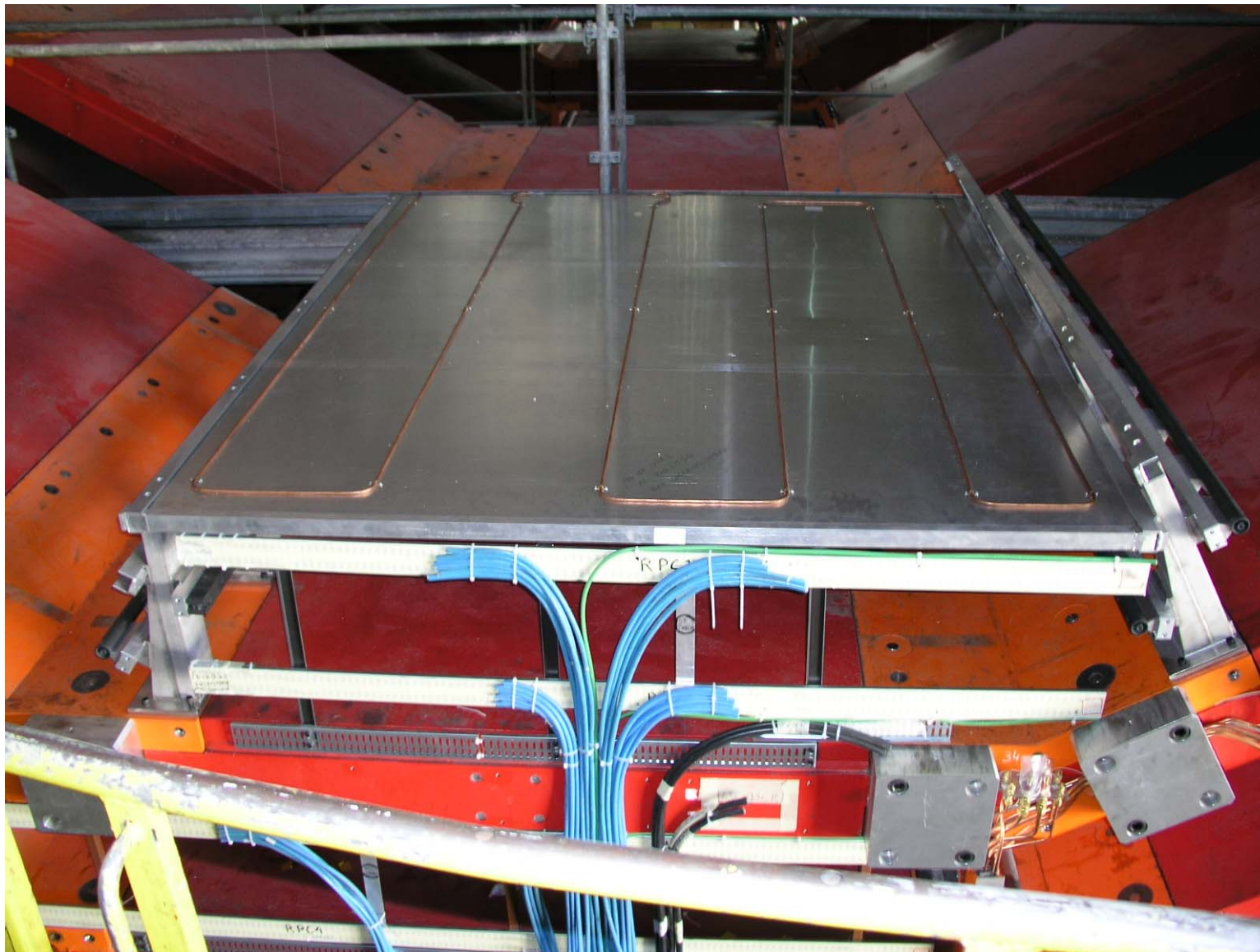
1. Result of dimensional check and trial assembly in Beijing conform to Tech. Spec.
2. Material delivered and stored in a warehouse near Point 5.
3. Assembly Structure Template, and geometry check tool, to be manufactured.
4. Installation tool. MB4 I.Tool must be modified to fit MB1 SS. Feasibility study ongoing. M. Simini can work on it from 21 June. It has been estimated 2 or 3 days of work.
5. Tools supposed to be ready by end of June.
6. Installation on YB +2 could be started 2<sup>nd</sup> week in July '04. As for MB4 installation, manpower is supposed to be provide by BMU Institutes.



# MB1 SS Trial Installation









1. Design of holes on the face of iron completed for all the YB.
2. Position of holes on the inner side of first iron slab defined. Design of template in work. Execution on YB +2 could start by end of June '04.

