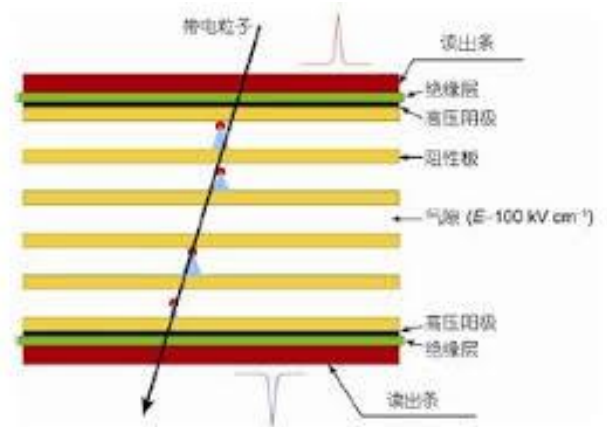
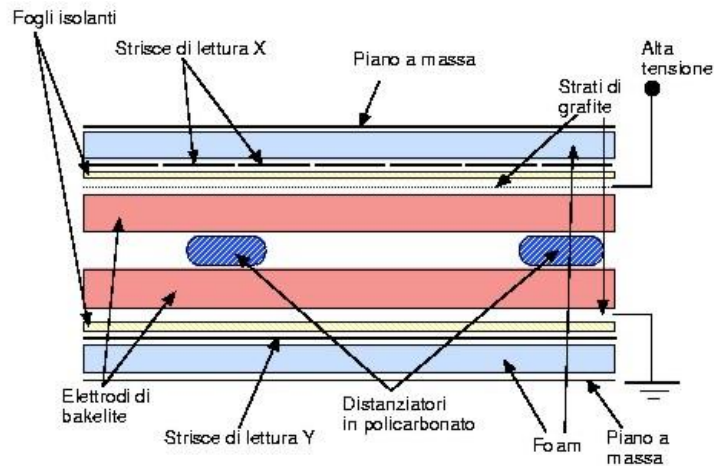


R&D collaboration on resistive plate detectors



<https://indico.cern.ch/event/327989/>

At the RPC workshop 2014 (China, Tsinghua University) it has been discussed the proposition of an R&D collaboration to share problems and solutions, avoid duplications and create working instruments conceived to be useful not only to a single group but to the community

The most appropriate instrument for this purpose, according to a diffused opinion, is to create and formalize a R&D collaboration at CERN, following the model of the many RDXX collaborations. The CERN laboratory is a crucial accumulation of expertise and research activities in this field and the whole community would benefit of the CERN umbrella.

Also CERN will run important research infrastructures for detector development and test. The RDXX scheme offers an efficient and organized access to these facilities

Basic caveat for a collaboration:

- No constraints of any type to the research freedom of each group
- Collaboration open to all partners who will decide to join it
- Sharing of all working items according to the expressions of interest
- Sharing of the work results
- Sharing of test beam facilities
- Consolidation of a strongly interconnection with other initiatives

Some important tasks:

- exploit extreme timing performances
- exploit sub-millimetric spatial resolution
- perform longevity studies for high luminosity collider experiments
- exploit high rate capabilities
- design new detector concepts for calorimetric measurements
- design and test new front-end electronics
- develop new materials and new layouts
- study new environmental friendly gas mixtures
- improve detector physics understanding and develop software infrastructures

Other important baseline concept:

- Connect our network to other networks, such as AIDA, RD51
- Share concepts, ideas and discussion with international collaboration
- Use the R&D collaboration framework to facilitate participation to international calls (HORIZON 2020)
- organize in a coordinate effort the use of CERN infrastructures
- share expertise and tools of other transnational laboratory to improve research capability
- organize international workshop and conferences

Road Map:

- First VIDYO meeting 3 week ago. Large participation from Europe and Asia
- Preparation of a LoI by September/October
- Third meeting to approve the LoI in October
- Submission of the LoI before the end of the year