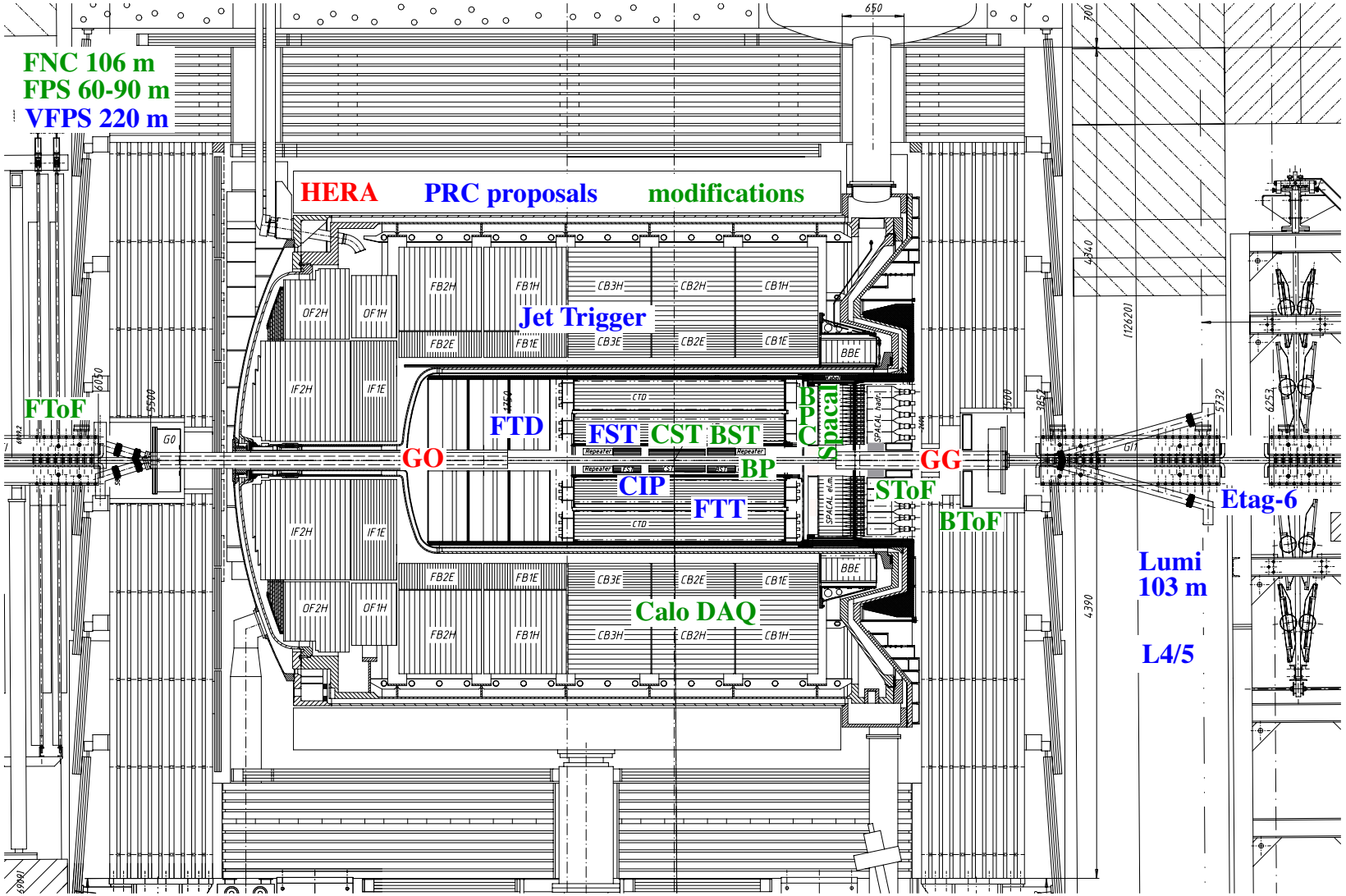
H1 Shutdown Status and Schedule

- Overview of Shutdown Activities
- Status
- Remaining Activities and Milestones
- Requests

Overview of H1 upgrade Projects



HERA / H1

- Beam pipe ✓
- GO ✓
- GG 21.-29.5.

Tunnel-NL

- FNC ✓
- FPS ✓
- VFPS

Tunnel-NR

- γ-detector ✓
- e-tag 40m ✓

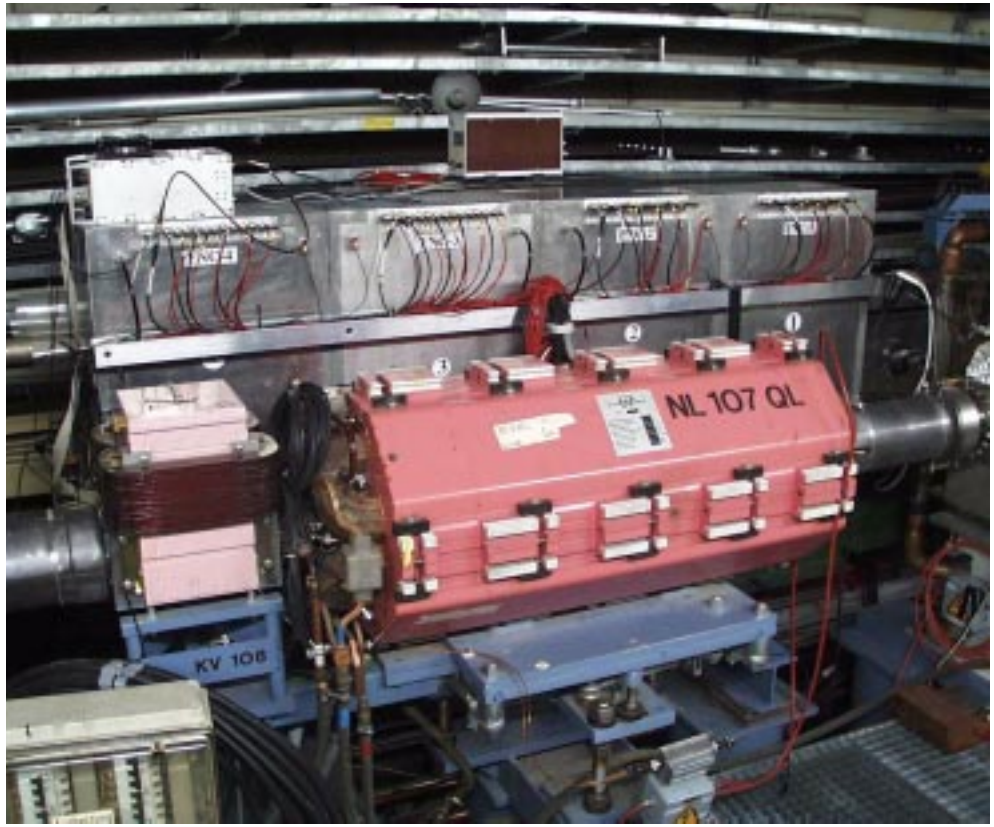
H1

- CIP ✓
- FTD ✓
- FST ✓
- CST ✓
- BST 16.-18.5.
- BPC 5.-15.6.
- SpaCal 13.6.-3.7.

New Tunnel Systems

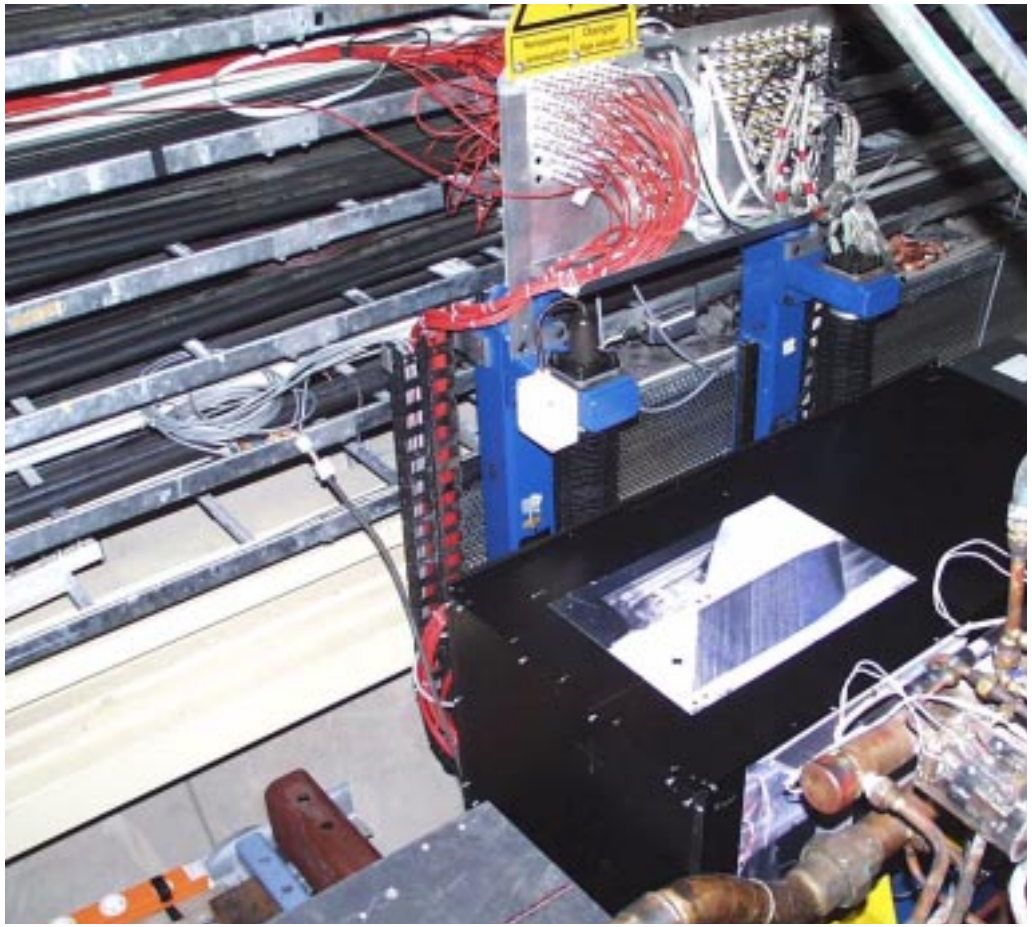
NL 105 m

- Forward Neutron Calorimeter FNC
- Lead/Scintillator sandwich (Moscow)

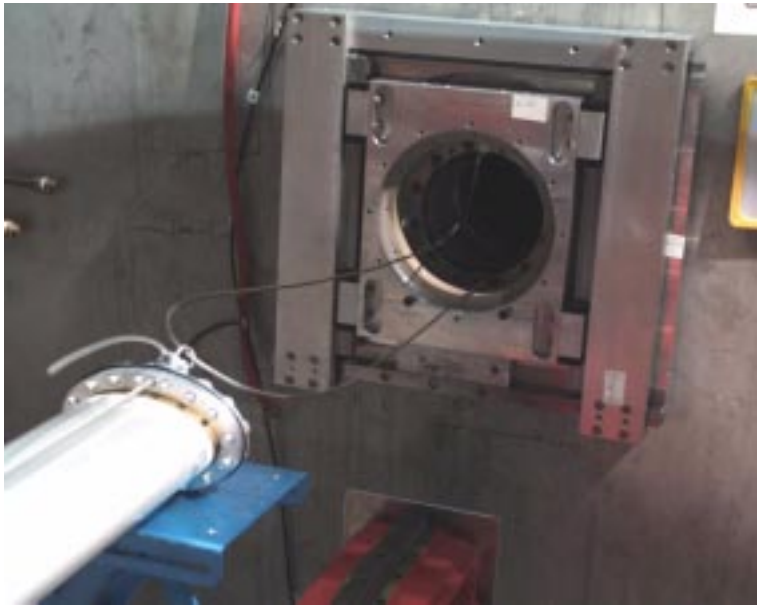


NR 103 m

- Photon detector
- Quartz fibre detector (Ecole Polytechnique)



GO and H1-Beam Pipe



Movable supports
at both ends of GO

Inner Proportional Chamber CIP

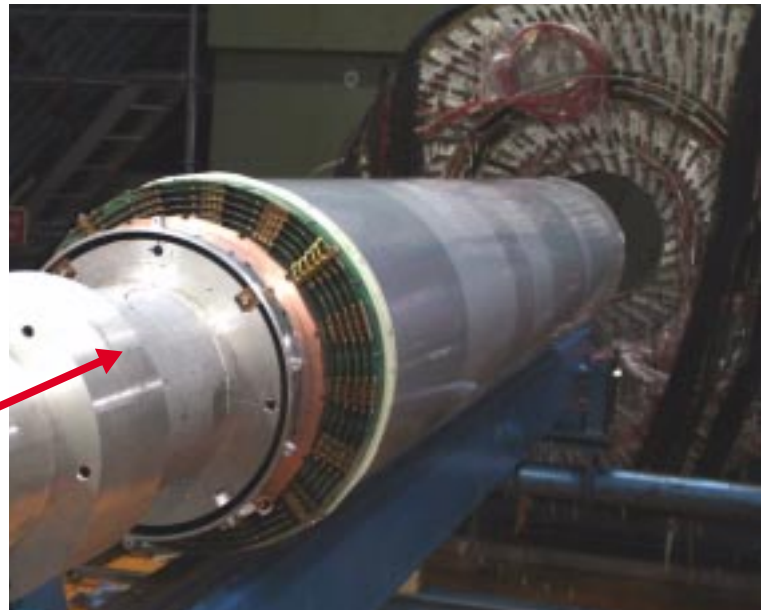
- 5 layer chamber built in Zürich
- 8500 read out channels
- mass production of 40 CIPix boards for optical read out was delayed (VCSEL, 90° light fibres, bonding, glue ...)
- in order to minimise impact on overall schedule (5 weeks): installation proceeded in 2 steps

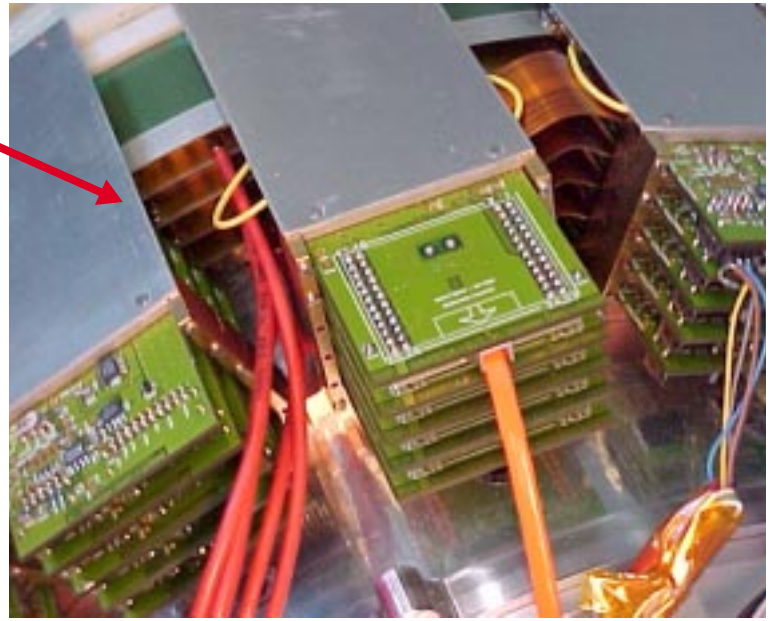
  1) install CIP without electronics into CJC (20.2.)
     => date for moving H1 could be kept

  2) mount electronics only after H1 back in beam position (9.4.)

- electronic tests on chamber successful

- installation of electronics in trailor ongoing



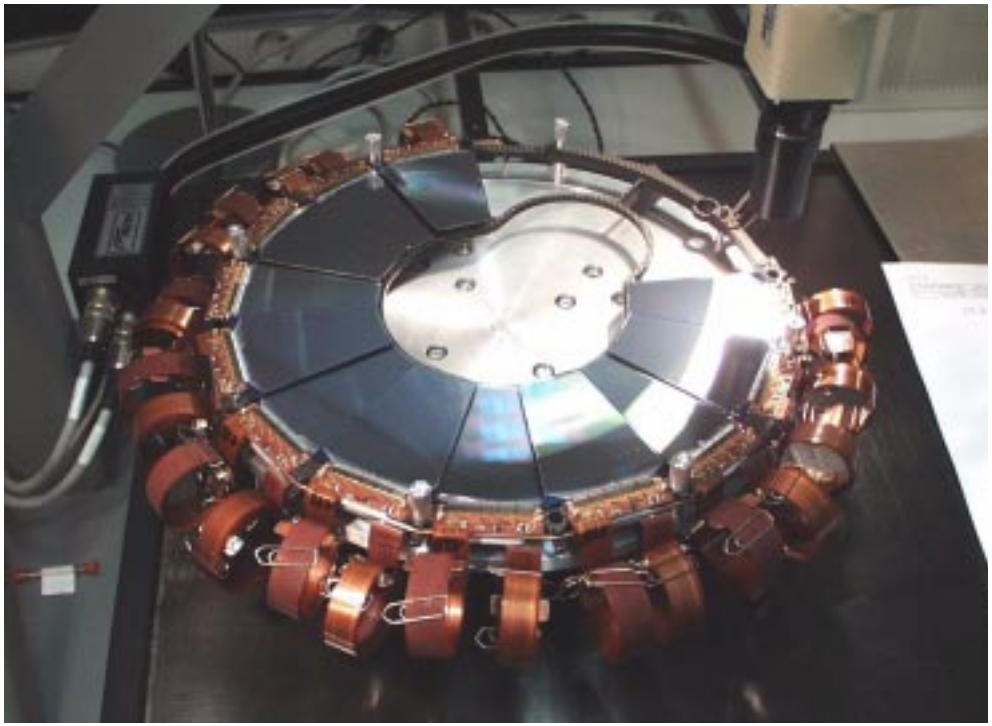


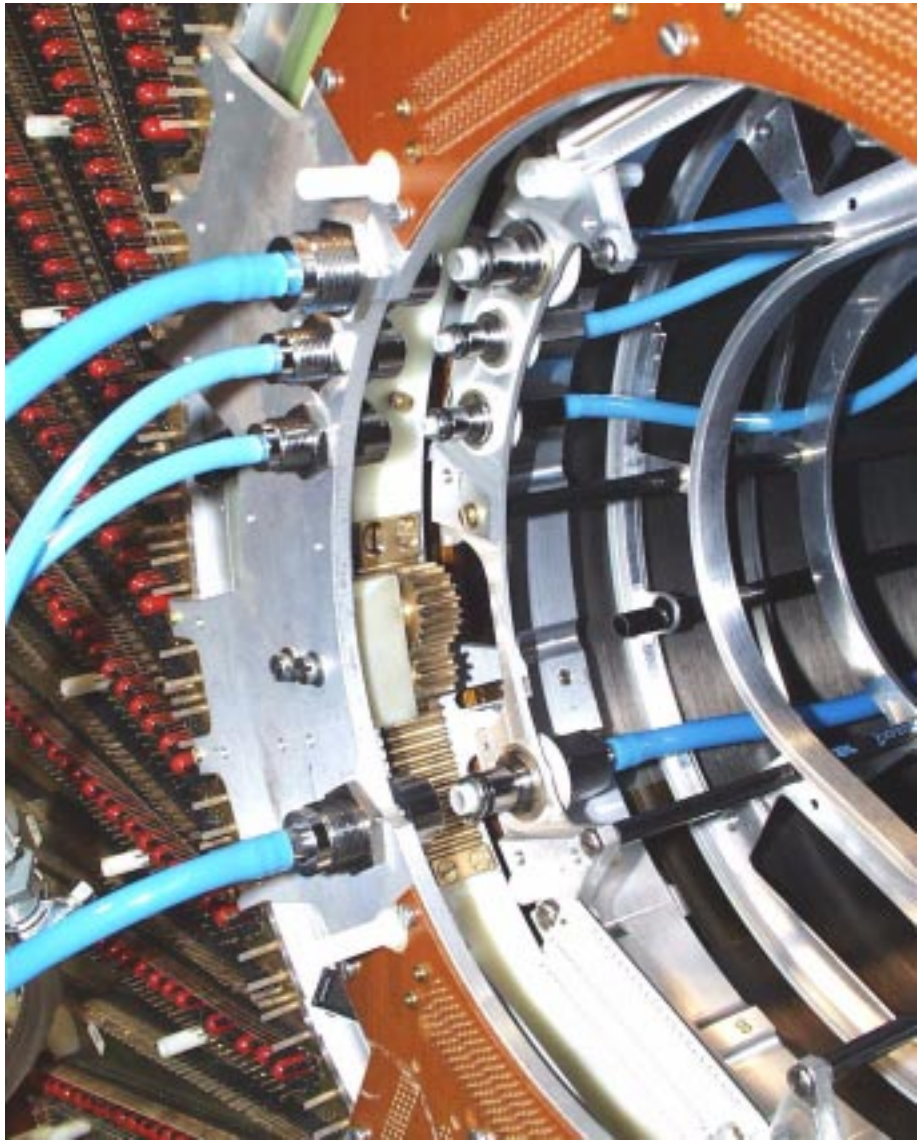
Forward Tracker FTD

- 5 new 8-wire planar chambers built at RAL and inserted into FTD
- new segmented Scintillator Planes replace old forward trigger chambers
- some recabling in trailor still to be done
- waiting for cosmics for alignment

Forward Silicon Tracker FST

- 8 new planes built in Zeuthen
  - 5 u,v-planes (φ–coordinate)
  - 2 r-planes (radial coordinate for pattern rec.)
  - 82% of 2π covered in φ
- read out and water/N_2 connections via contact rin sitting in CJC at +z end
- successful detector installation from –z end 23.4
- have to find ≈1000 electrical contacts at far end (≈2 m) remotely

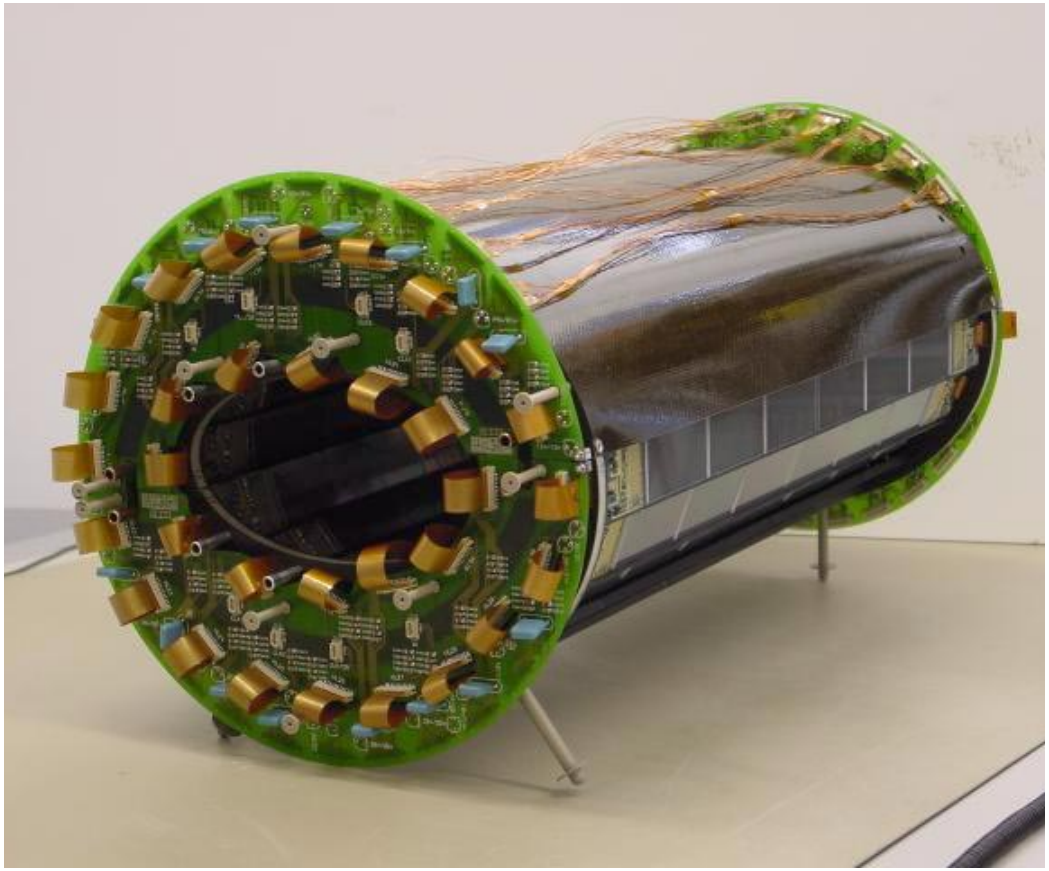




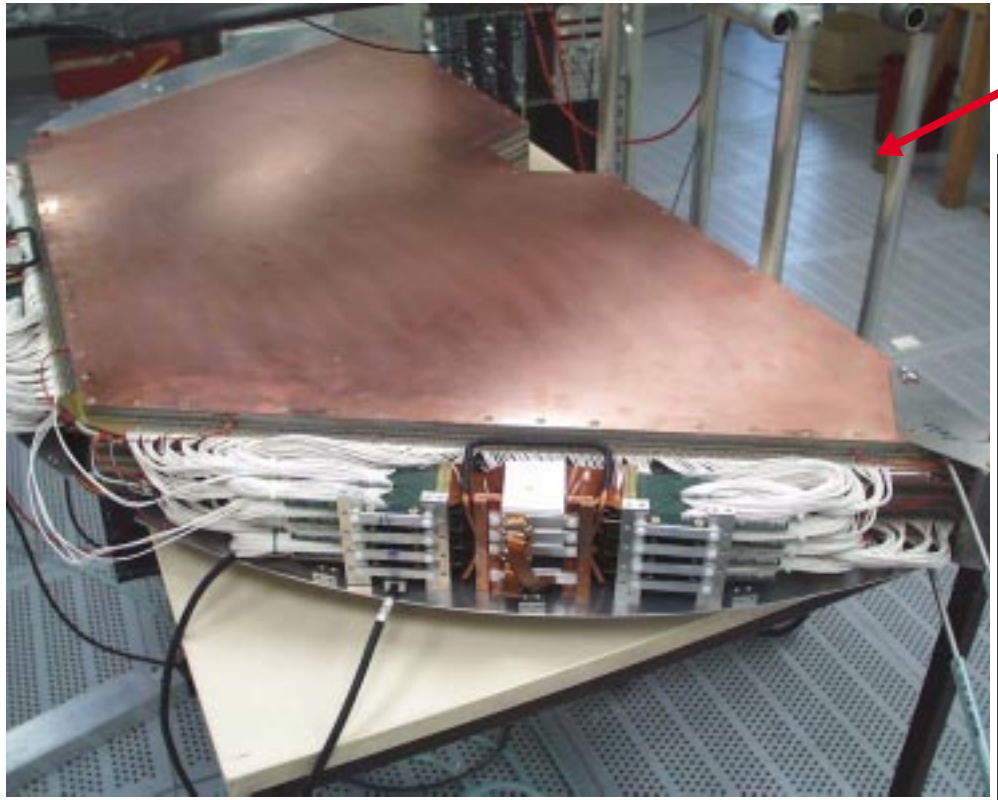
Modified Central Silicon Tracker CST

Necessary Modifications:

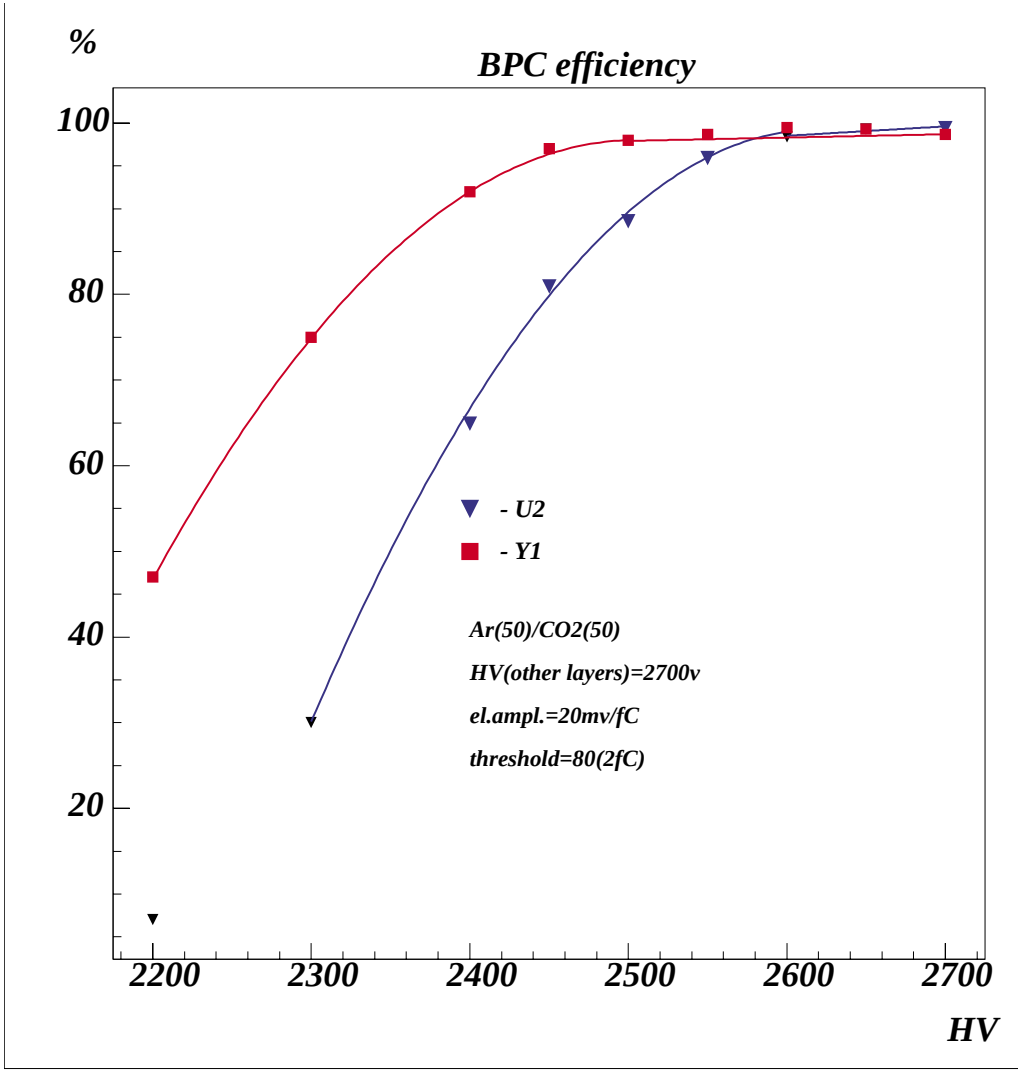
- change geometry to adapt to elliptical beam pipe
- replace APC chips by radiation hard chips (DMILL by ATMEL)
  - significant delays due to problems getting export license from France
- successful installation end of April



Backward Proportional Chamber BPC



upper half of BPC on cosmic test stand



- two modules with 6 planes each
- production of detector in Dubna
- stuck in Dubna customs for ≈ 4 weeks
- finally arrived at DESY 20.3.
- extensive cosmic tests ongoing
- installation into H1: **5.-15.6.**

Summary

H1 well on schedule for restart of HERA

Next Milestones

- Install BST 16.-18.5.
- Install GG 21.-29.5.
- GO/GG coldtest 30.5.-8.6.
- Install BPC 11.-17.6.
- Install SpaCal 18.6.-3.7.
- Cool down H1 coil 27.6.-6.7.
- Close H1 6.7.
- Ramp up H1 coil 7.7.
- Cosmic Run 7.7.-18.7.

Requests

- end of May need access (zZ) for lumi system
  - install second calibration system
  - install temperature monitor for Be-filter
- one of the Forward Tagging Stations FTS at 19 m still has to be in stalled (zZ)
- FPS fibre detectors will only be installed during Christmas break
- for H1 shift planning:
  - need to know requests from HERA?

H1 Running Strategy for 2001/2002 and beyond

Constraints:

- available e^-/e^+ data sets

  only ≈15 pb^{-1} with e^- taken sofar compared to ≈100pb^{-1} for e^+

- polarisation

  running with flat rotator in H1 and maintaning polarisation at HERMES is no longer an option

Conclusions:

- our highest priority is to get as soon as possible into high luminosity mode: ensure that we can obtain > 150 pb^{-1}/year

  => collect ≈ 50 pb^{-1} e^+ data

- establish polarisation routinely

  => switch to e^-

- wish to explore the option of even higher Proton Energies