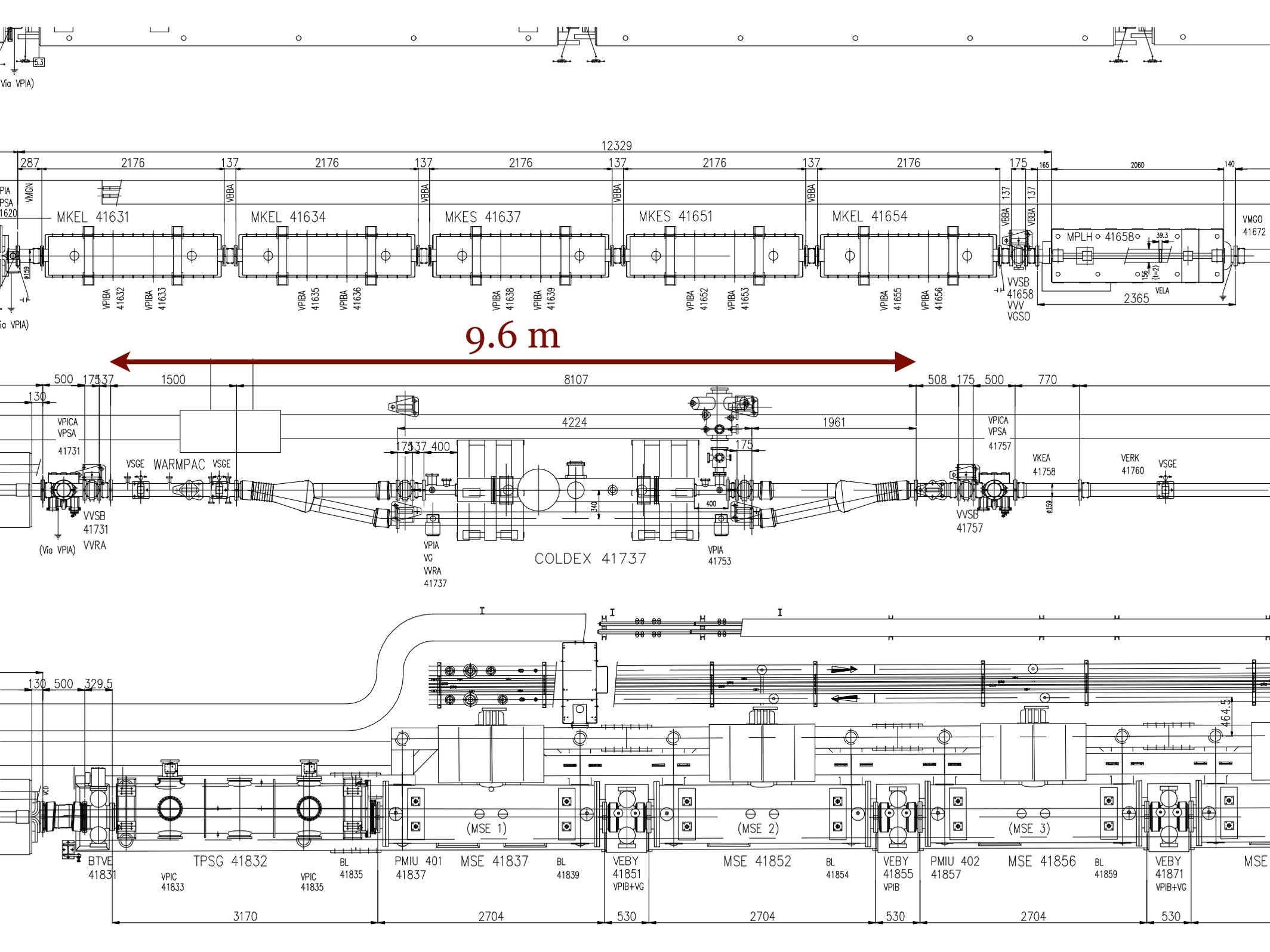


**A possible location for the hollow electron lens at CERN:  
the COLDEX installation in the BA4 section of the SPS**

*Photographs taken during the tunnel access of 8 November 2011  
with B. Jenninger, V. Previtalli, A. Rossi, and G. Stancari*





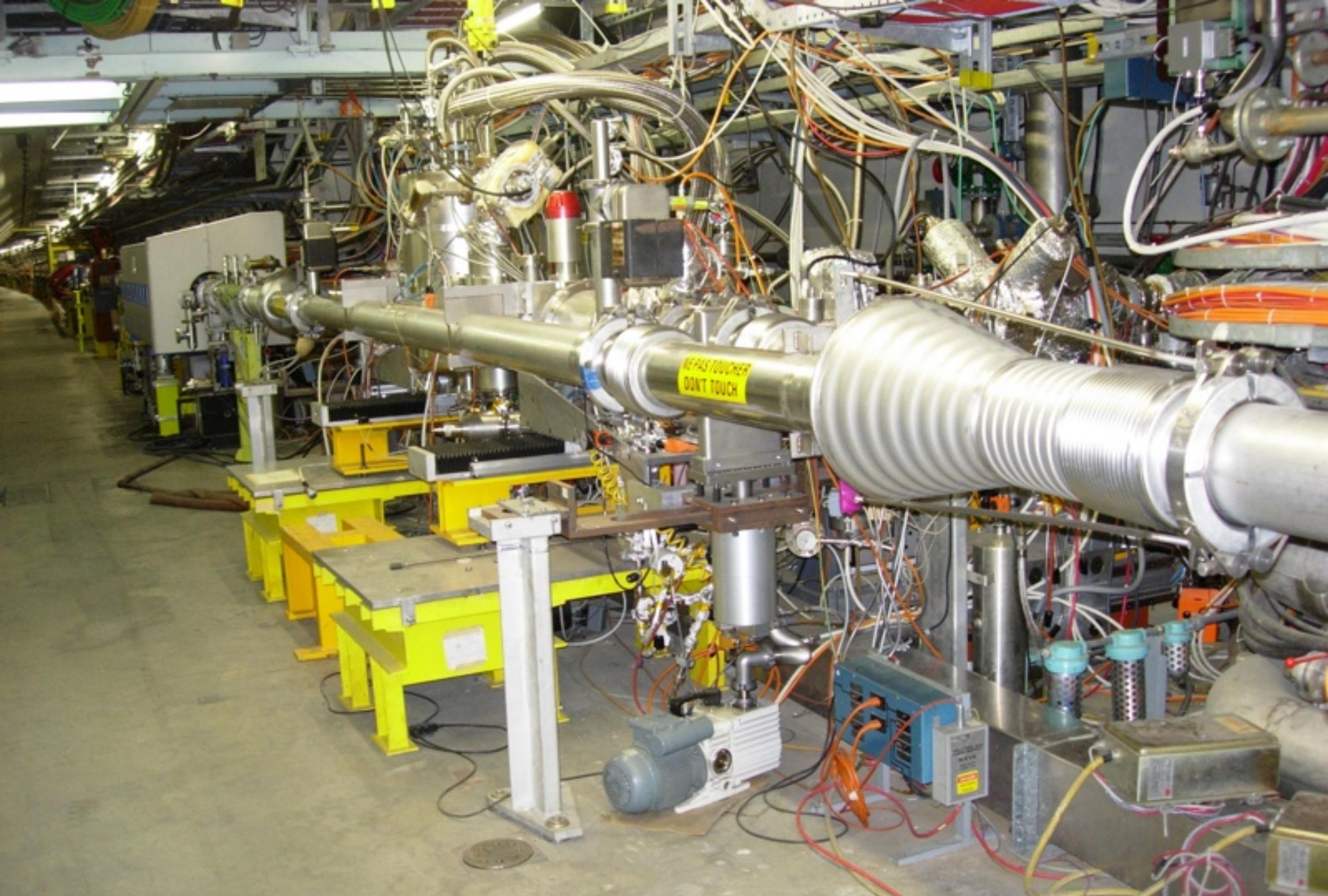




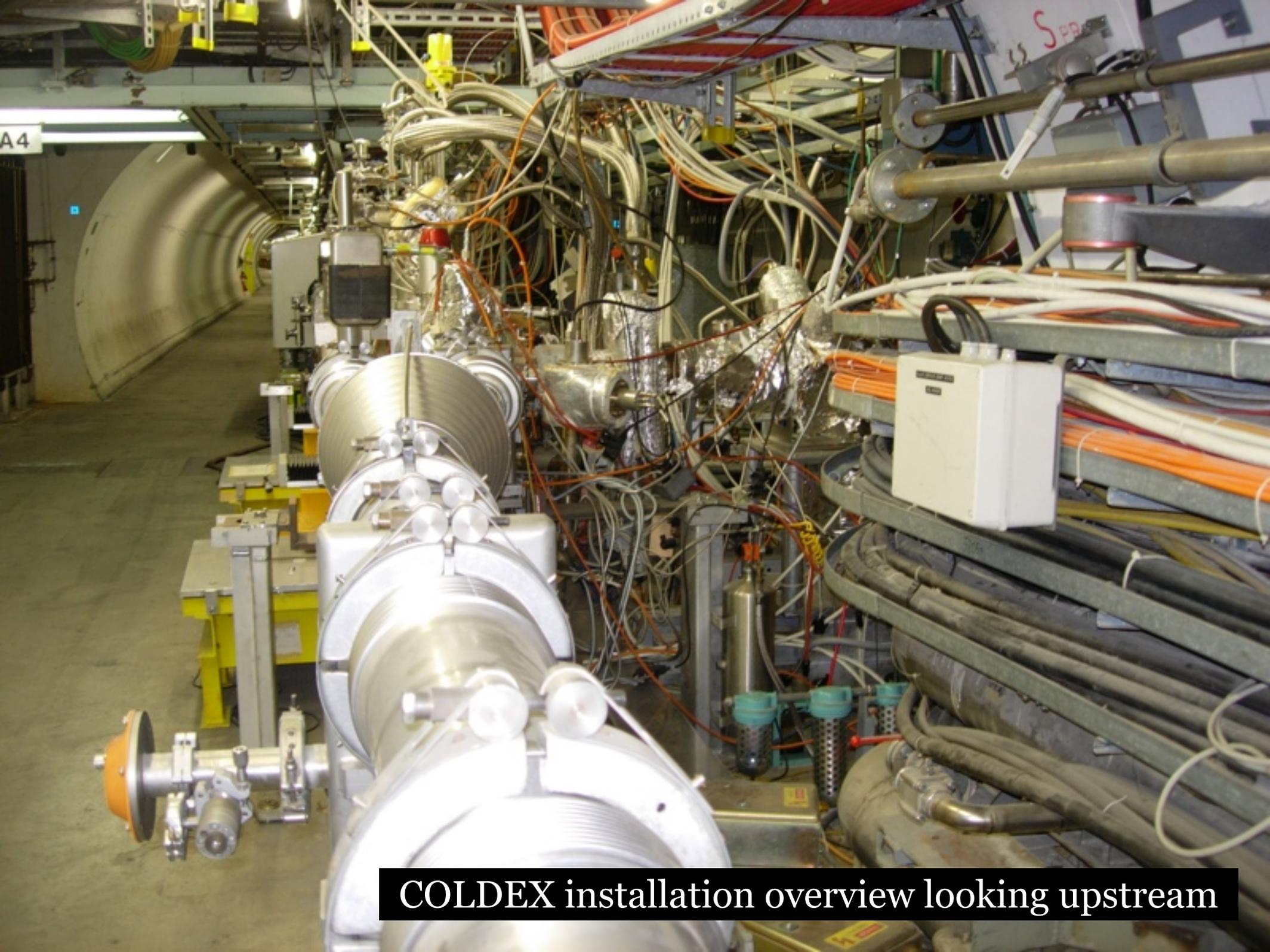
tunnel access



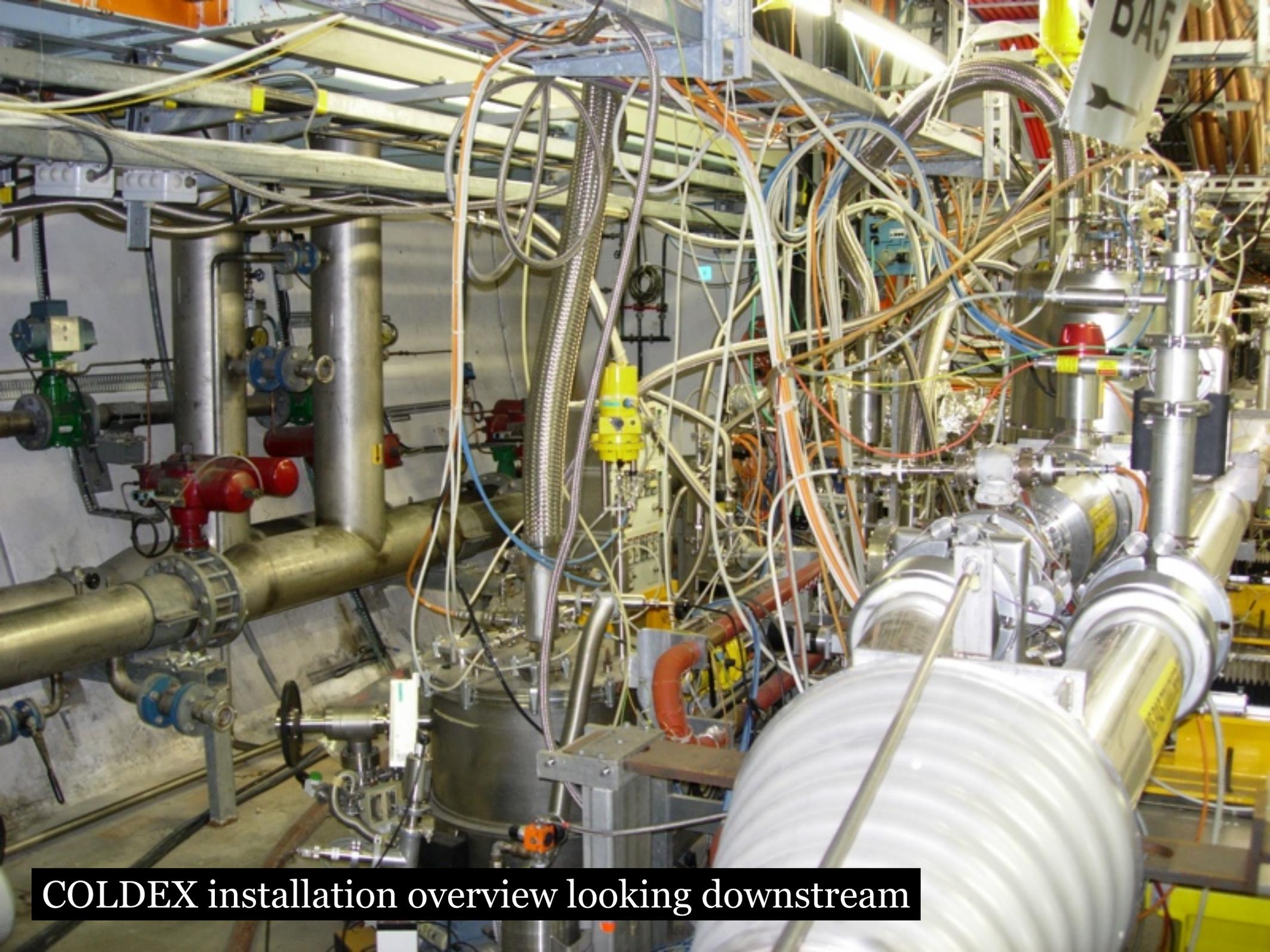
**COLDEX installation overview looking downstream**



**COLDEX installation overview looking upstream**



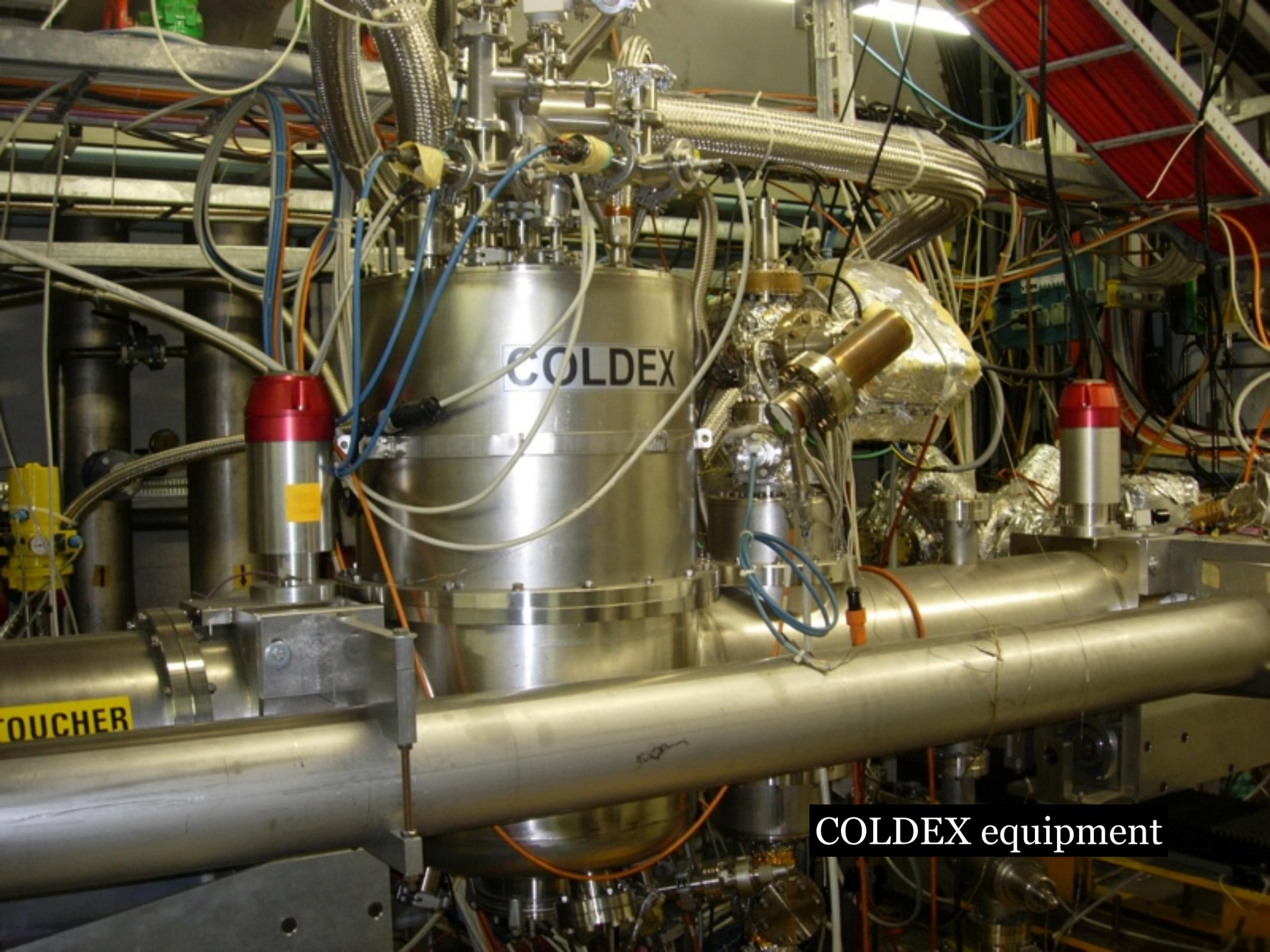
COLDEX installation overview looking upstream



COLDEX installation overview looking downstream



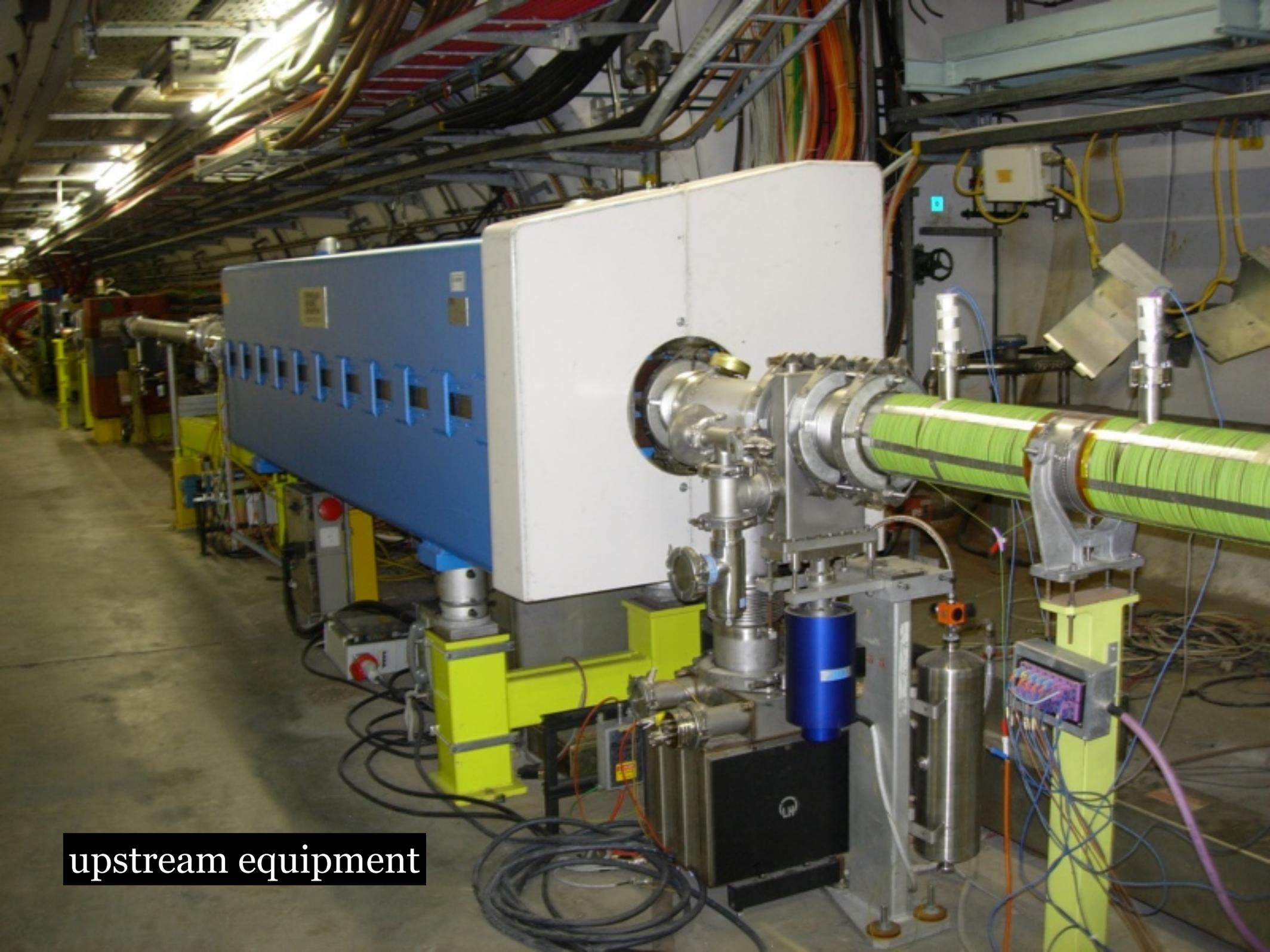
downstream end



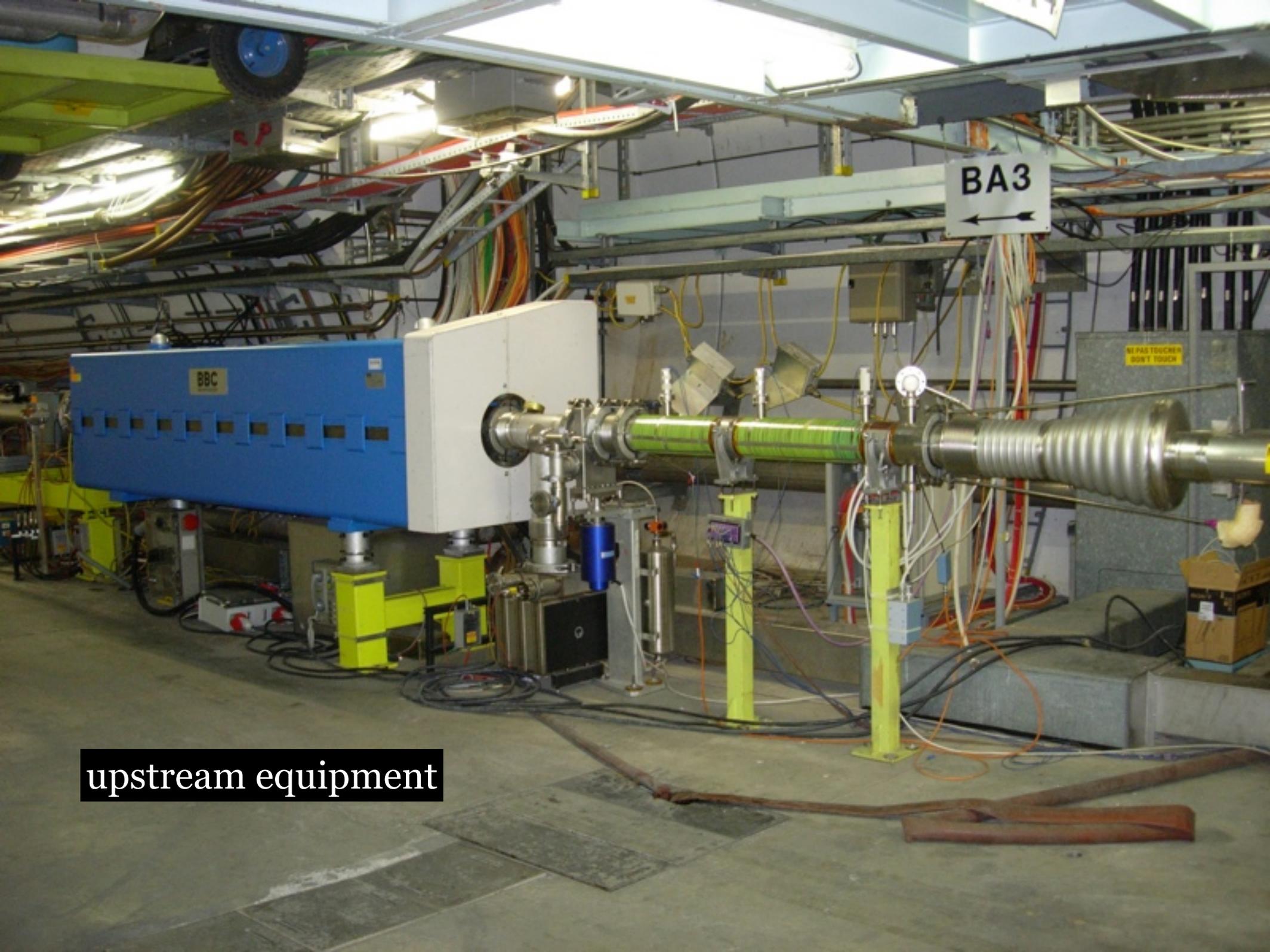
COLDEX

TOUCHER

COLDEX equipment



upstream equipment

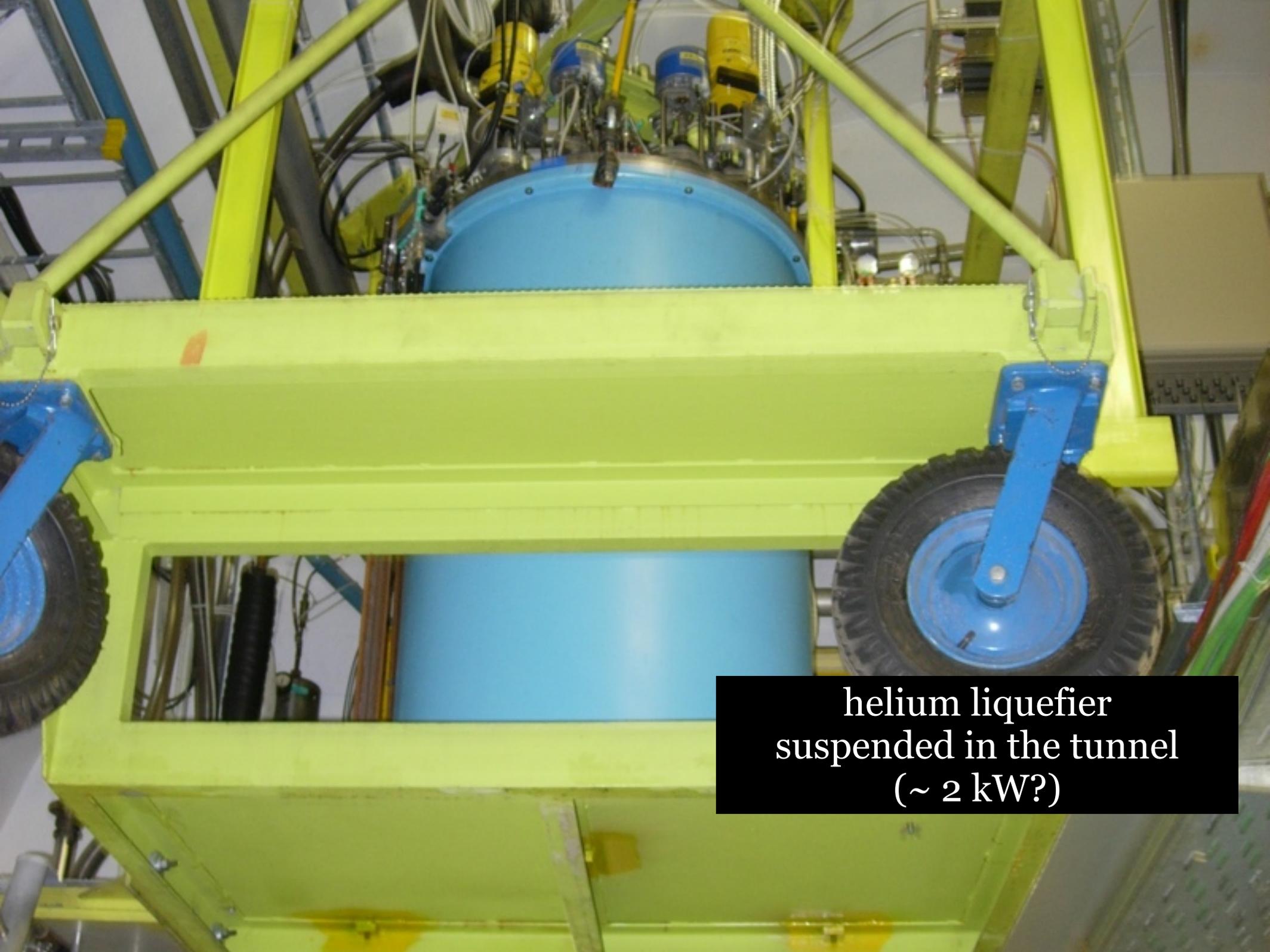


BA3  
← →

BBC

NI PAS TOUCHER  
DON'T TOUCH

upstream equipment



helium liquefier  
suspended in the tunnel  
(~ 2 kW?)

DO NOT TOUCH  
DO NOT TOUCH

SPS  
SONY  
PHOTO  
MADE IN JAPAN

compressor on outer side



vacuum-insulated  
nitrogen line  
(not used)

helium tank



## Comments:

- ▶ optics:
  - ▶ position 4015-4025 m
  - ▶ beta x, y: 41.6, 58.6 m
  - ▶ mu x, y: 15.197, 15.188
  - ▶ D x, y: -0.58, 0 m
- ▶ beam pipe height
- ▶ no space on inner side (passage clearance)
- ▶ space (... m) on outer side
- ▶ vacuum-insulated nitrogen line available in tunnel but not used
- ▶ helium tanks upstairs to be re-certified
- ▶ technical contact: Berthold Jenninger (CERN TE-VSC-IVM)