

BGC tunnel installation status

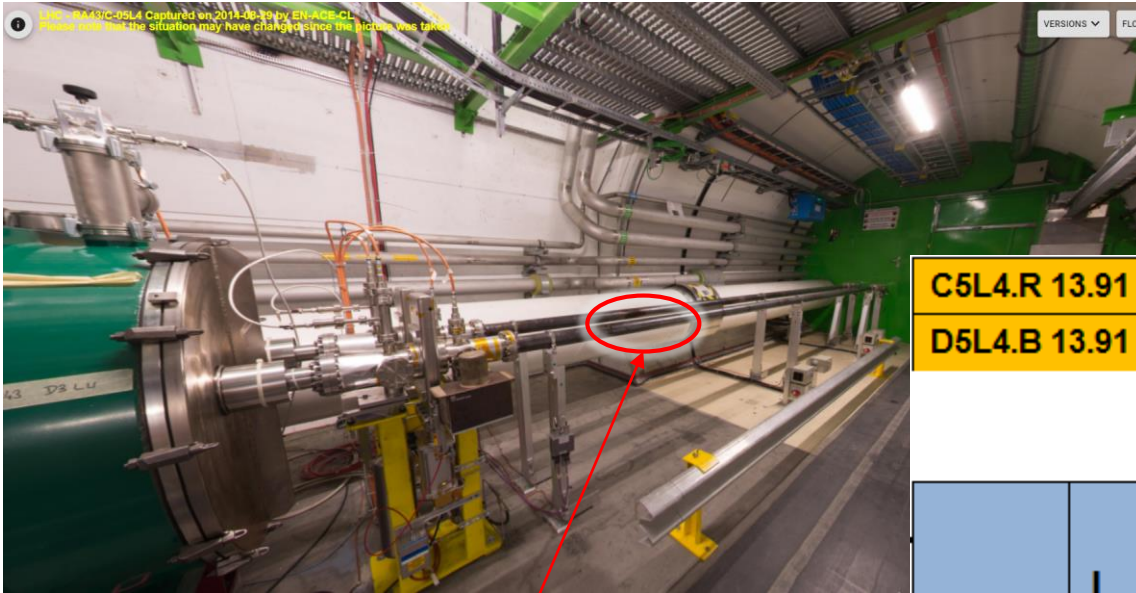
Lab activities

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Location of the BGC in the LHC

ECR: LHC-BGC-EC-0002 v.1.0

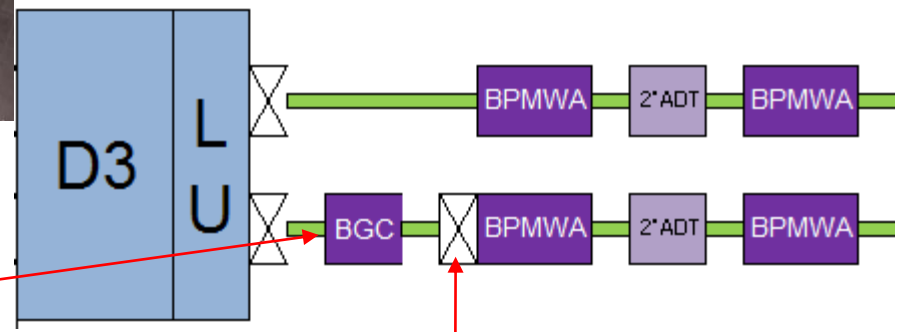
- Modified vacuum sector B5L4.B
- → 2 new sectors C5L4.B and B5L4.B



C5L4.R 13.91
D5L4.B 13.91

B5L4.R 36.45	
C5L4.B 8.3	B5L4.B 20.3

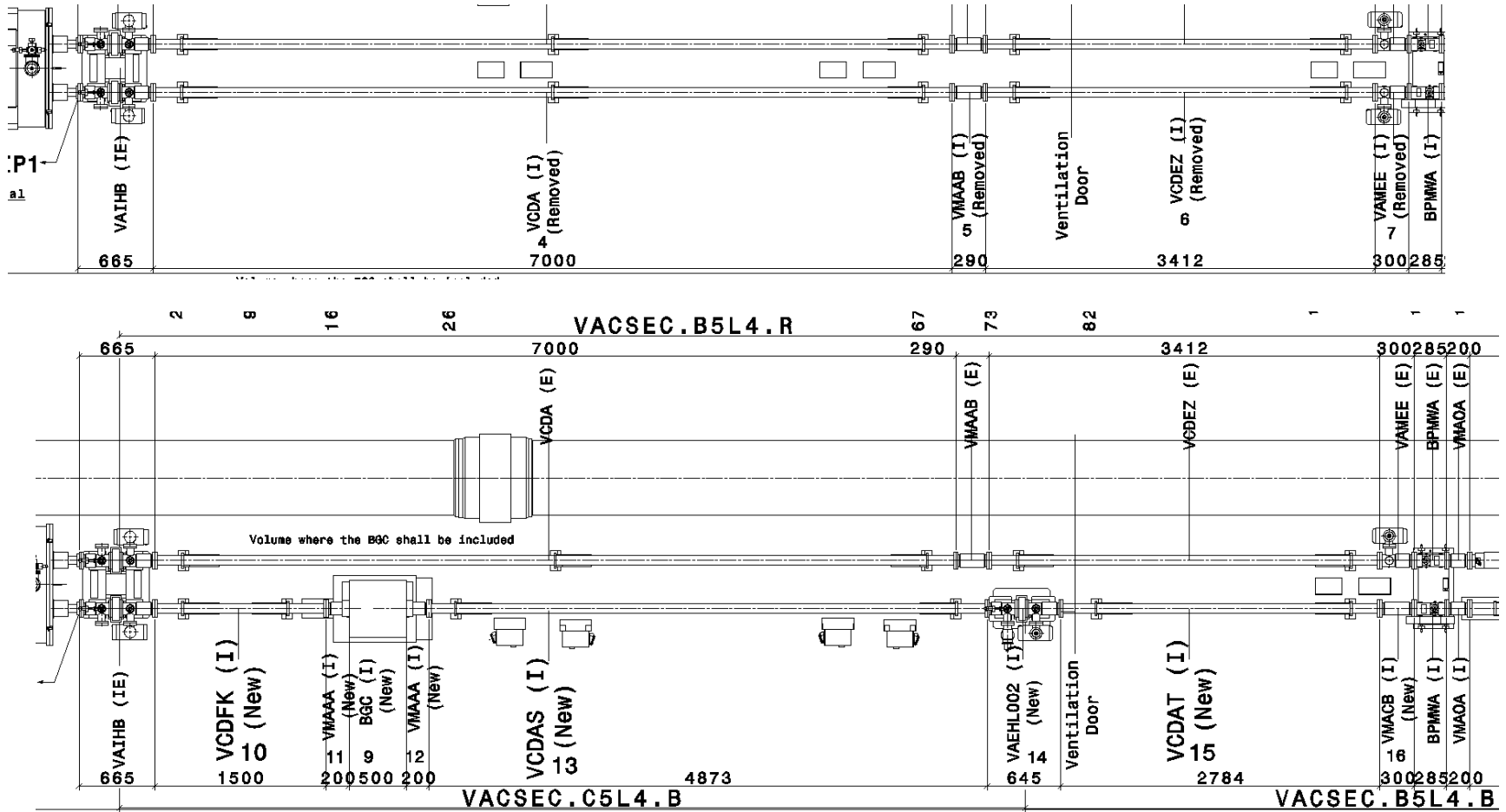
BGC futur position
Internal line



New sector valve

Differential layouts (before and after LS2)

- CERN drawing reference: lhclj_4u0024-vAA, top views only



Current status of the installation

- Sectorization ongoing



New sector valve

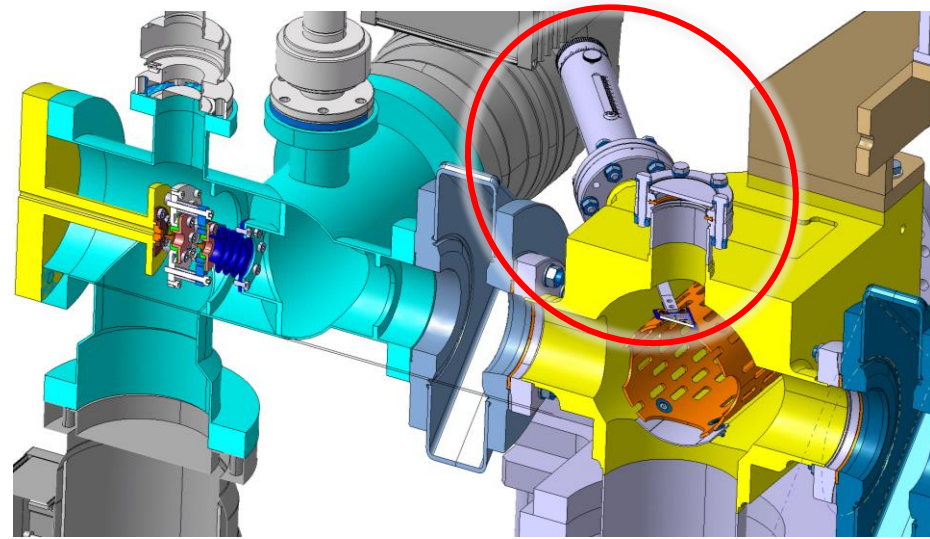


- All new vacuum chamber supports are ready
- LHC layout database updated

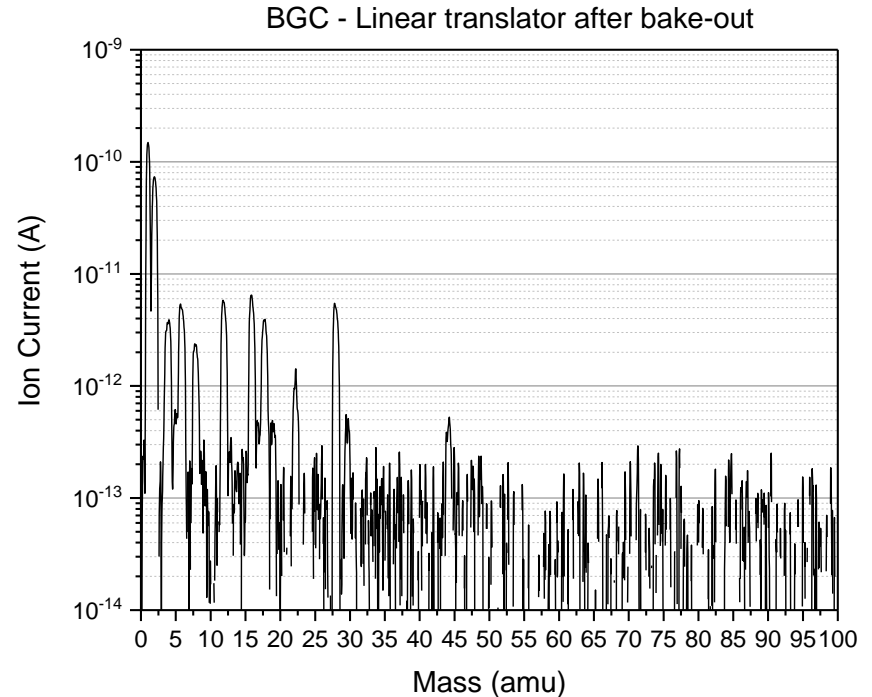
Next for the tunnel (2020)

- Right side of new sector to align, to pump and leak test
Weeks 12/13
- Align new VCDAS on BGC side vacuum sector, pump and wait for the BGC tank
Weeks 12/13
- Finish the mechanical installation (ready for bakeout)
Week 18
- Update SCADA vacuum control software
Requested for week 18
- Bakeout installation and cabling
Week 19
- Bakeout and NEG activation
Week 20

Acceptance tests

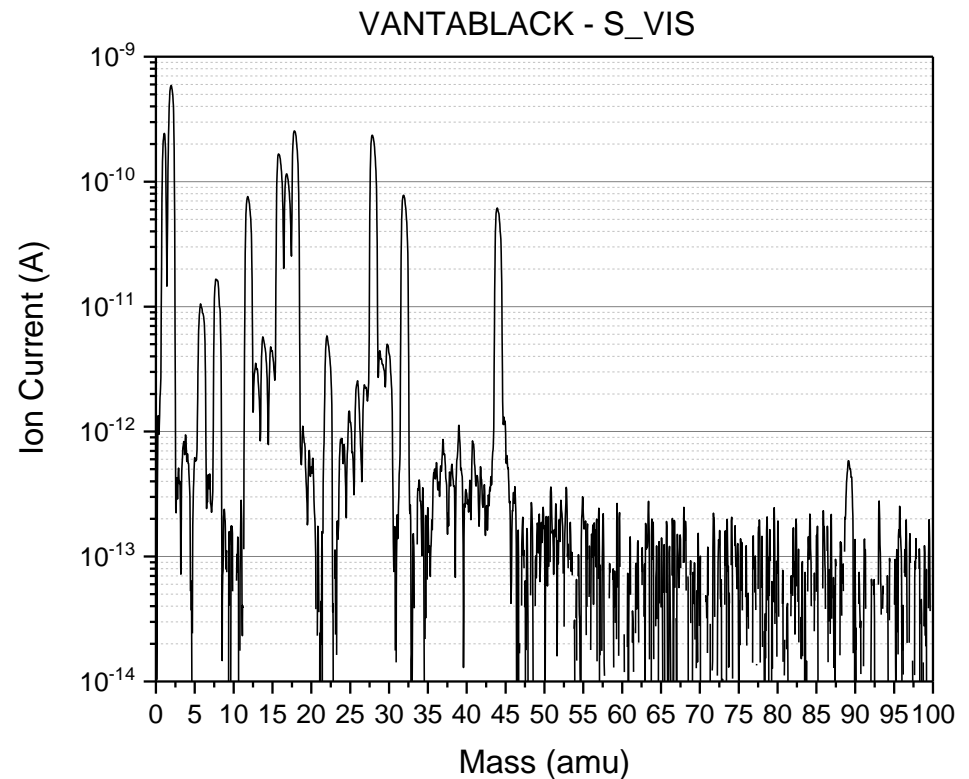


Linear Translator with retractable target for optics



$$Q_{48h} = 2 \cdot 10^{-8} \text{ mbar l/s}$$

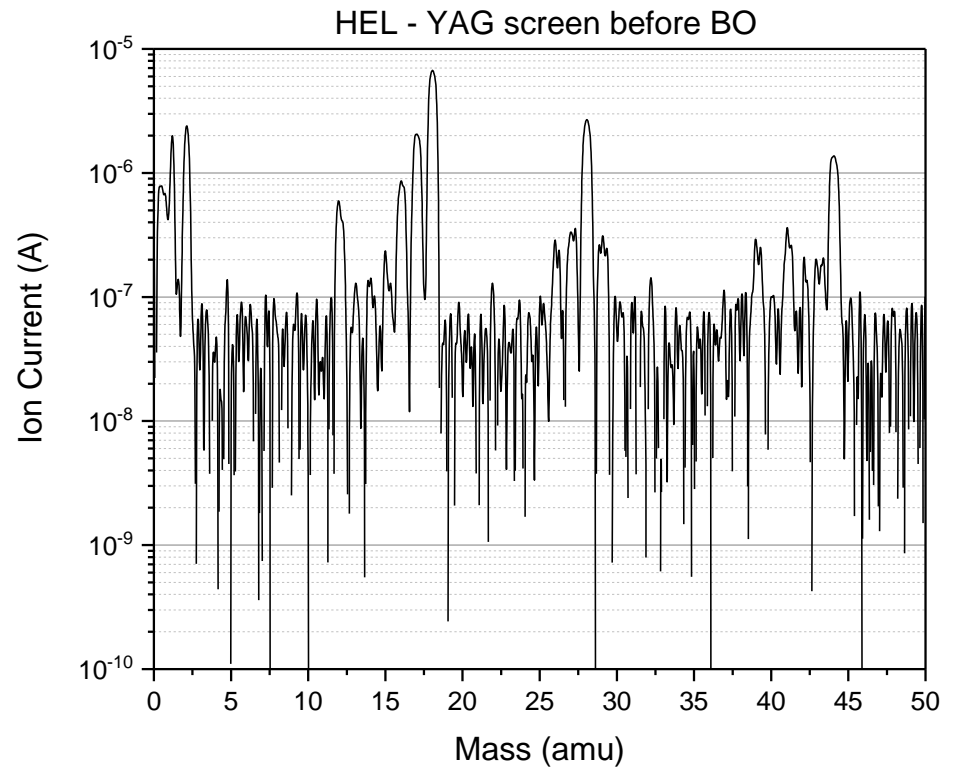
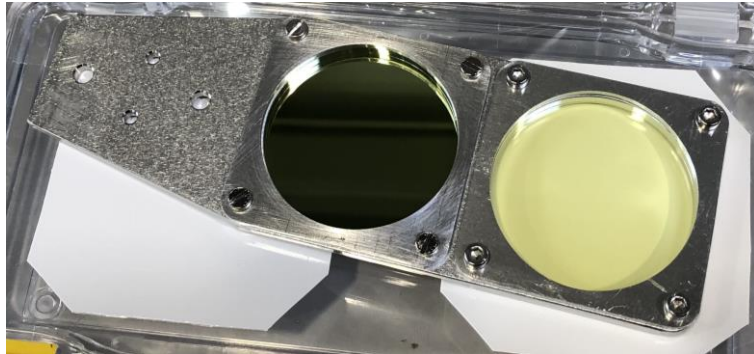
Acceptance tests



No bake-out performed yet!

$$Q_{24h} = 7.8 \cdot 10^{-7} \text{ mbar l/s}$$

Acceptance tests



$$Q_{48h} = 1.4 \cdot 10^{-9} \text{ mbar l/s}$$