

Cooler High Intensity SHIRAC (LPC Caen, CSNSM, GANIL)

Aim : be able to cool beams up to $1\mu\text{A}$ from 80π mm mrad down to 1π mm mrad in order to enter HRS with optimal size

Classic solution but with high RF voltage and reduce gap between electrodes

→ Few kV @ few MHz (done)

→ Buffer gas damping (Helium)

**→ 2008 Phase 1 CSNSM set up @ LPC,
several modification to test high current beam cooling**

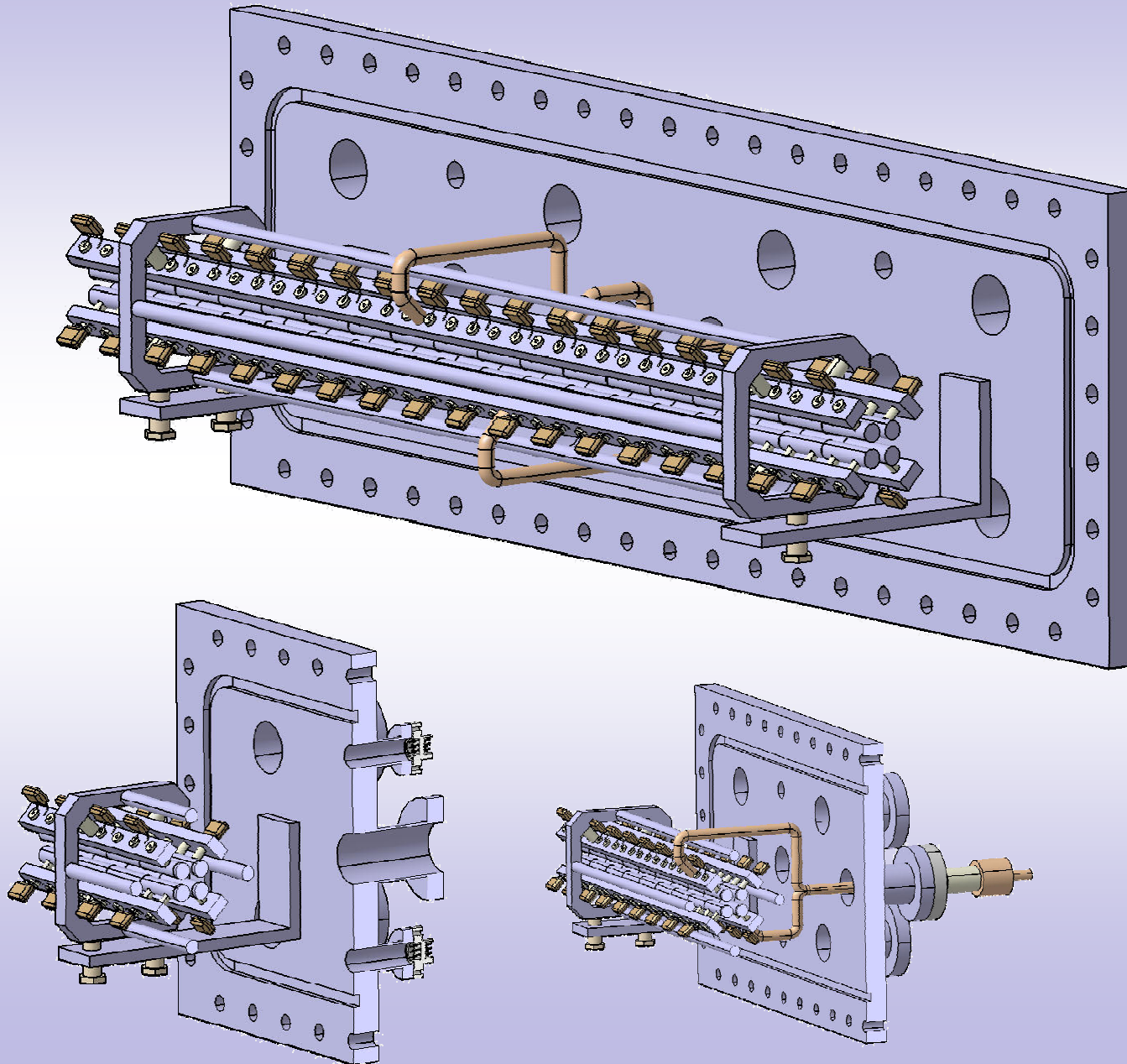
**→ 2009-2010 Phase 2
New set up**

With improve vacuum and RF, still not fit for SPIRAL2 nuclear environment

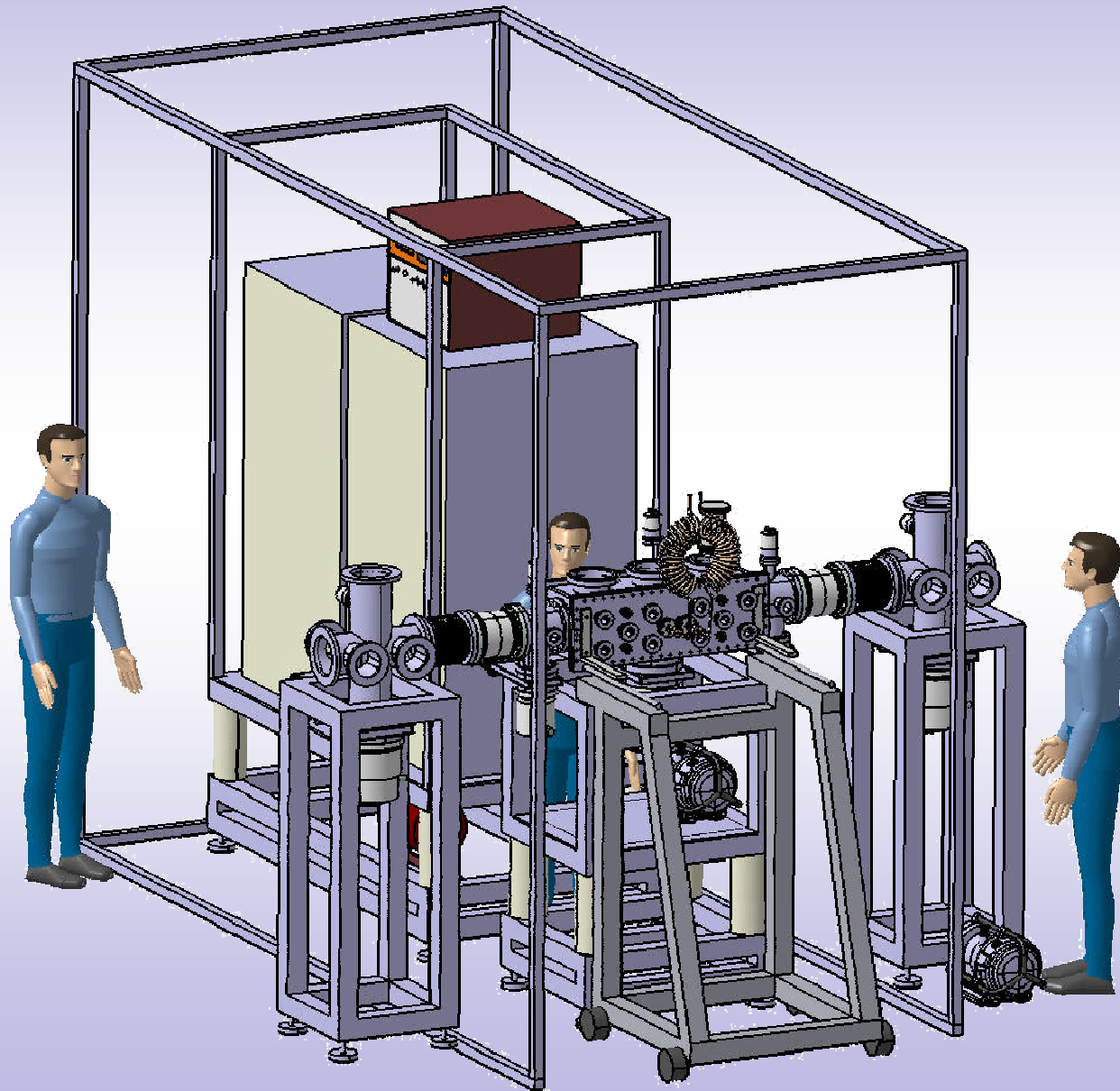
**Cooling of High Current still to be proven
Results end 2009**

Overall cost ~ 300Keuros, adaptation to SPIRAL2 will cost??

SHIRAC 2 - RFQ



SHIRAC 2 – implantation générale



Surface ~ 4x4m²