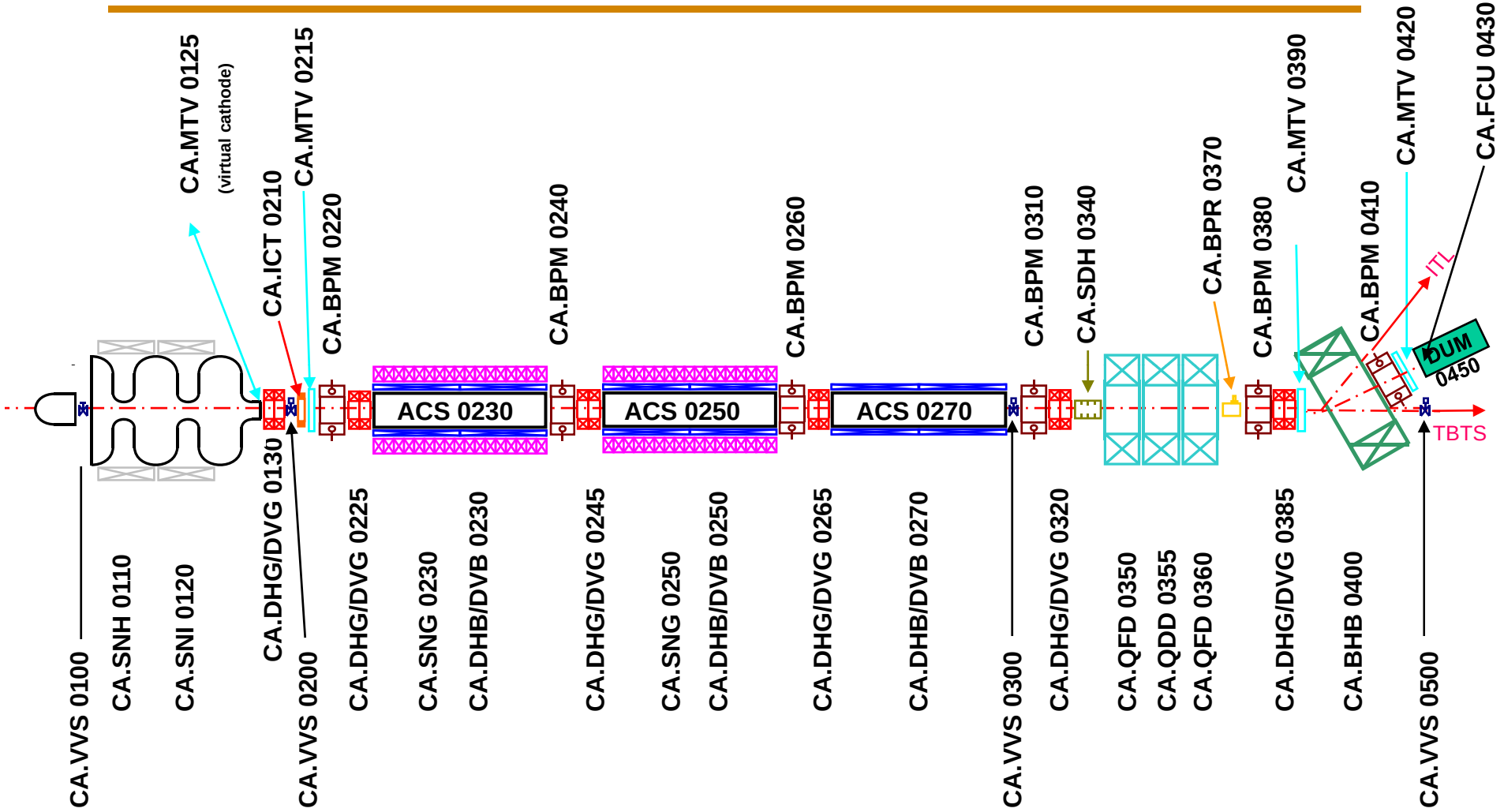
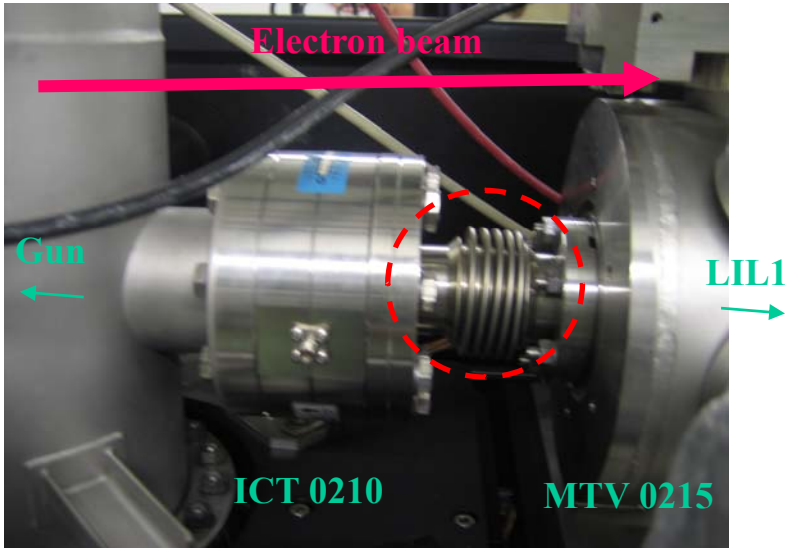
# #1 – CTF3 Committee: CALIFES STATUS



# Beam line installation (including laser transport line) and Alignment




- Intense activity since several months

- Alignment is more difficult than expected:

*Future plans:*

Before week 20: vacuum break by CERN

Week 20 and 21: (CEA team at CERN)

- disassembly of elements between gun and LIL1 including BPM n°1 for realignment (errors found between CERN and CEA alignment data)

- disassembly of all BPM-DHG/DVG, MTV supports for alignment investigation

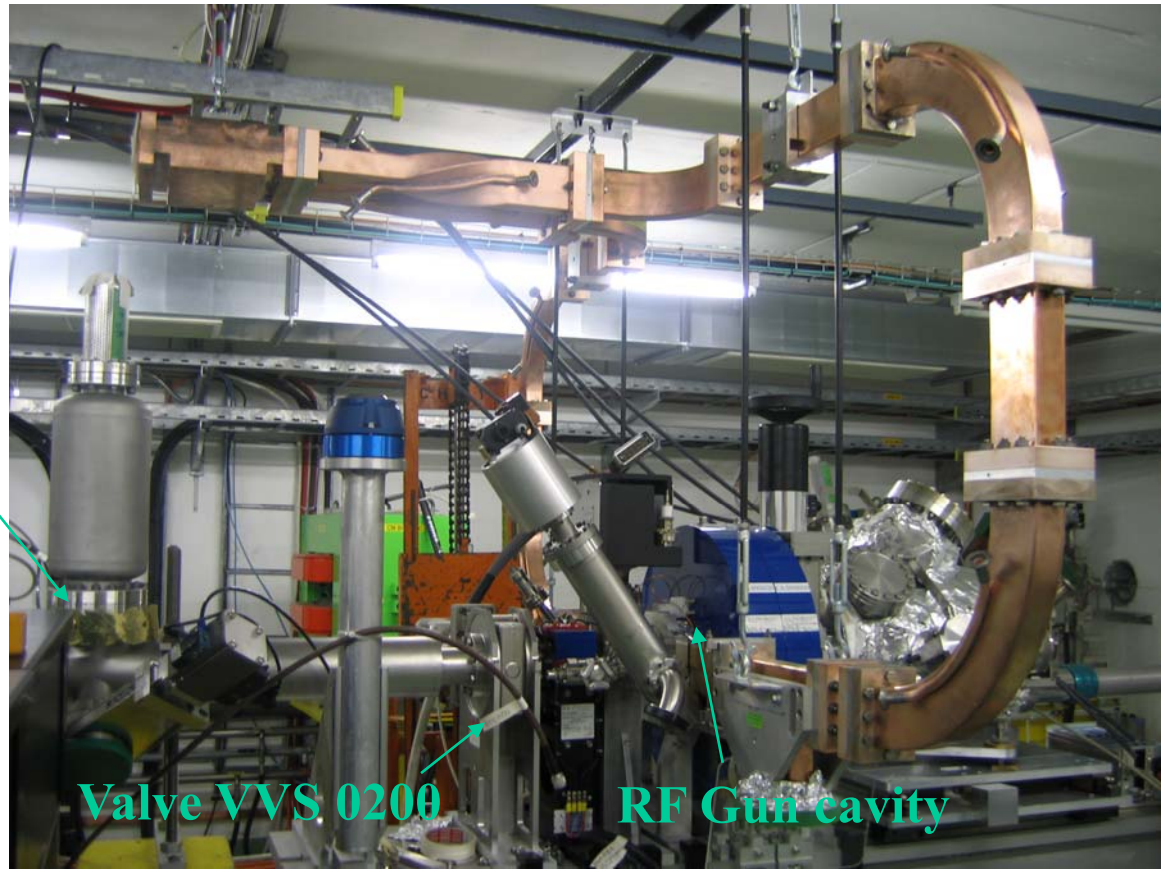
Objective: sealing and vacuum pumping of the whole linac end of w21

→Need close support

- from CERN Vacuum group
- from CERN Alignment team during 15-16 and 19-21 May

# Photo-injector Bakeout

- The bakeout of the gun must include the RF waveguides and can include some elements after the valve if necessary




Attention: Temperature must be limited around MTV 0215

# Command-Control , BPM and Laser system

## Command/Control:

Intense activity on C/C for the three next months particularly for BPM

## BPM:

Electronic chassis installed in CLEX-G (see picture)

## Laser system:

Energy per pulse two low

→ not possible to work on the pulse shaping

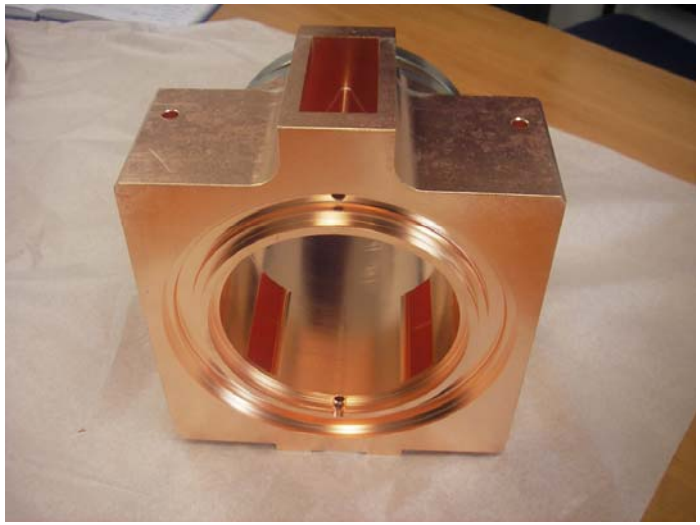
Beam delivery from Laser room to CLEX-A laser table validated (transport under vacuum along 60 meters)

# Circular phase shifter

Mode convertor: Brazing test on a scale one prototype succeeded

→ OK to start the two final convertors

→ scheduled for end of 2008



Circular sliding waveguides:

→ non conformity (turning) before brazing for few pieces

→ negotiations with supplier

# High Voltage Modulator

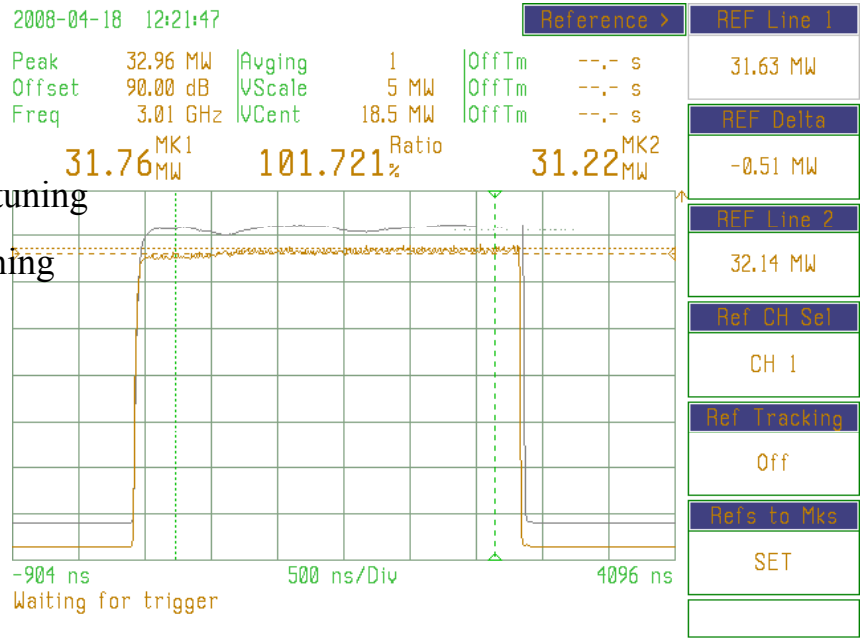
Second step of the acceptance test with PPT

High power load, bidirectional coupler, Low Level RF system including Peak Power meter and mixer to measure more precisely the voltage ripple and pulse-to-pulse stability (Jitter)

Ripple = ±0.3%

Jitter = ± 0.2%

(Measured at 270kV, 280A, 32MW, 3.3Hz at sat.)




Before PFN tuning

After PFN tuning

→ **Acceptable values for CALIFES**

Successful collaboration