

FINUDA for FLASH

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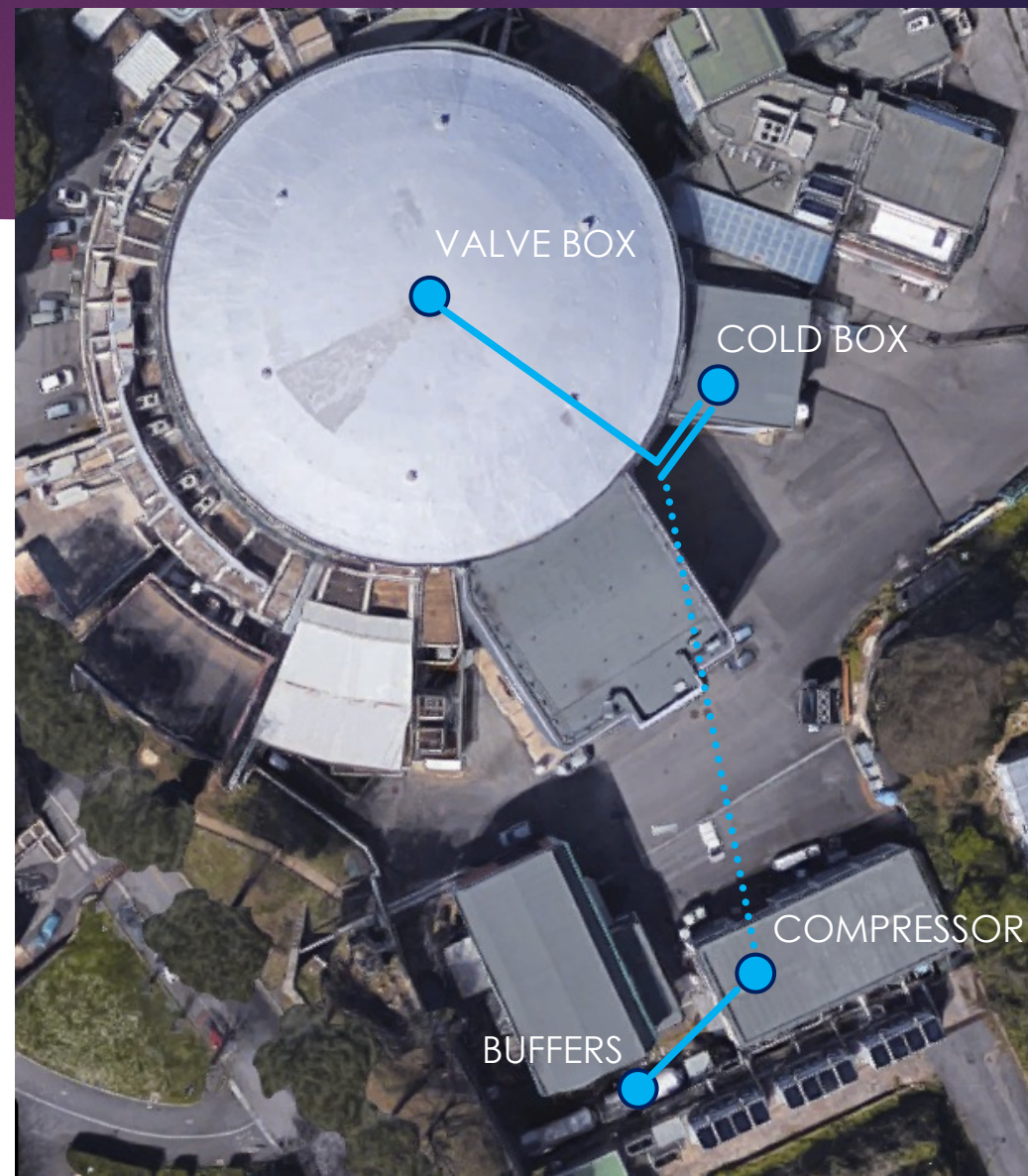
FINUDA for FLASH

1. **Cryogenic Plant check**
- 2a. **Cryogenic Transfer Lines modification**
- 2b. **FINUDA cryogenics check & refurbishing**
- 2c. **FINUDA Power Supply check/refurbishing**

3. FINUDA Detectors dismantling
4. take a decision about the FLASH location (DAFNE hall /KLOE hall)
5. RF cavity/cryostat study and CDR adaptation to FLASH

CRYOGENIC PLANT

- COLD BOX
- COMPRESSOR
- VALVE BOX
- TRANSFER LINES
- BUFFERS



1st step: CRYOPLANT RESTARTING

Cryogenic plans was turned off on March 2018:

- COLD BOX should be OK (to be checked the **old** PLC)
- COMPRESSOR should be OK
- VALVE BOX should be OK
- TRANSFER LINES should be OK
- BUFFERS must be subjected to periodic verification
- Plant safety valves must be replaced
- Active charcoals / filters regenerated
- Water cooling tower should be checked

People:

- cryogenic service + ?



Expenses:

- buffers maintenance cost (few k€)
- safety valves replacement (few k€)
- Nitrogen traps (?) (several k€)
- gaseous Helium (150 m³) (3 k€)

2nd step: FINUDA TL RECONNECTION



ValveBox–FINUDA Transfer Line needs to be:

- Cut
- Moved
- Joint with a new section

2nd step: FINUDA TL RECONNECTION



ValveBox–FINUDA Transfer Line needs to be:

- **Cut**
- Moved to the new FINUDA position
- Joint with a new section

People:

- cryogenic service

2nd step: FINUDA TL RECONNECTION



ValveBox–FINUDA Transfer Line needs to be:

- Cut
- **Moved to the new FINUDA position**
- Joint with a new section

People:

- cryogenic service

2nd step: FINUDA TL RECONNECTION



ValveBox–FINUDA Transfer Line needs to be:

- Cut
- Moved to the new FINUDA position
- **Joint with a new section**

People:

- cryogenic service
- mechanical eng. service
- external company

Costs:

- new section/rejoint (10-20 k€ ???)

2nd step: FINUDA CRYOGENICS CHECK

FINUDA is turned off since 2007. CRYOGENICS needs to be checked for:

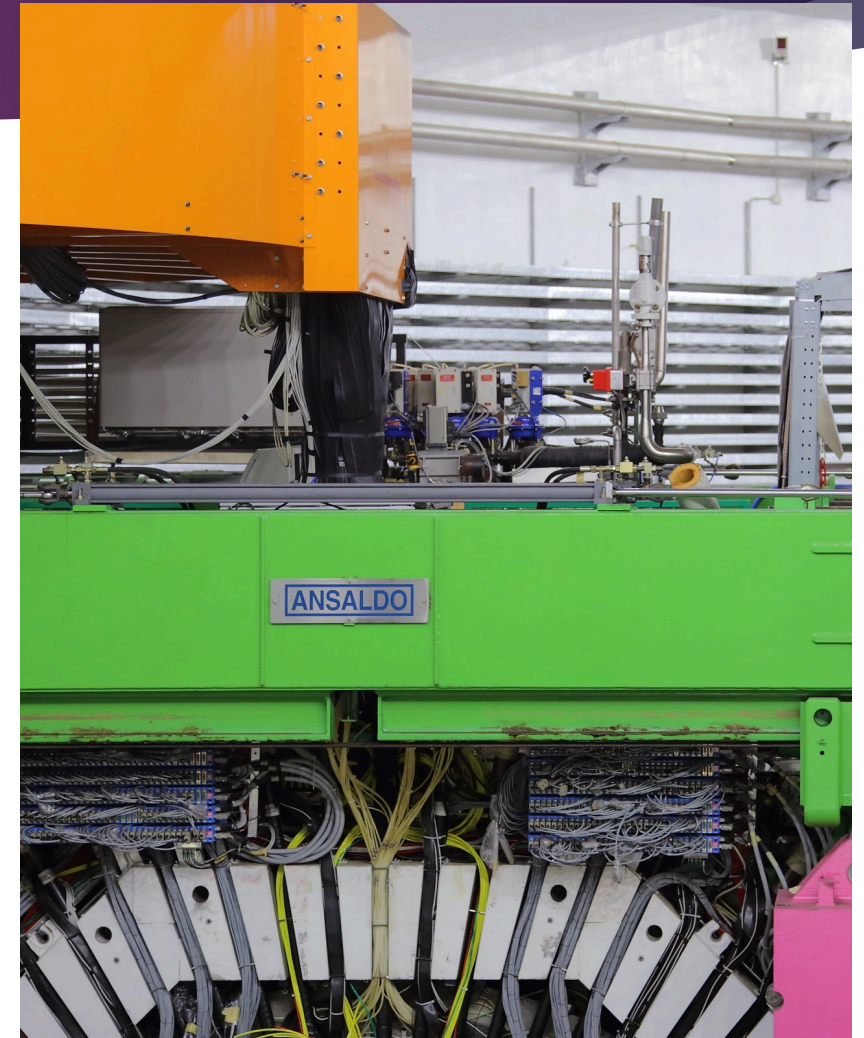
- **Safety Valves replacement**
- **Valves functioning**
- **Diagnostics functioning**
- **Vacuum system functioning**
- Control System HW / SW refurbishment

People:

- cryogenic service
- vacuum service

Costs:

- ?



2nd step: FINUDA CRYOGENICS CHECK

FINUDA is turned off since 2007. CRYOGENICS needs to be checked for:

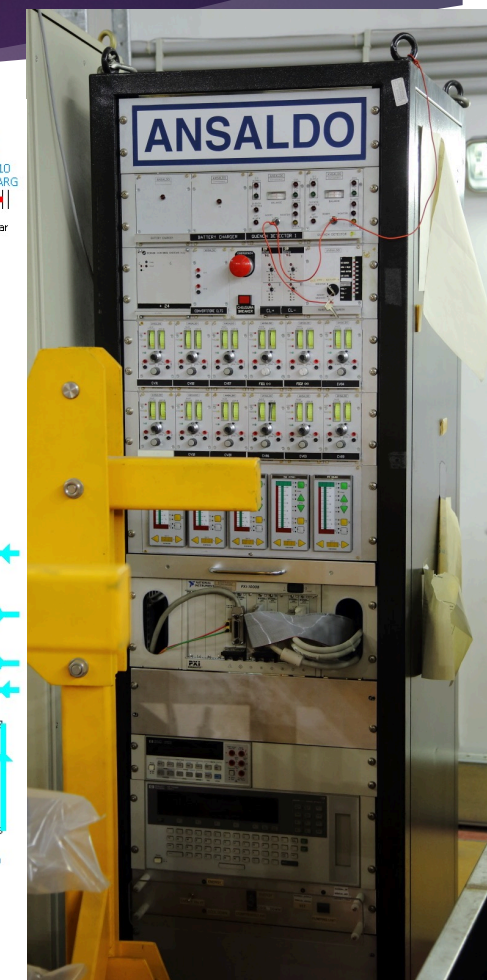
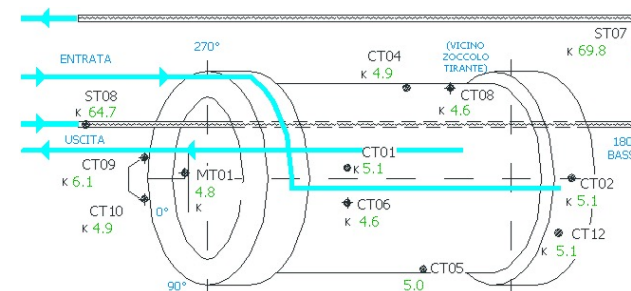
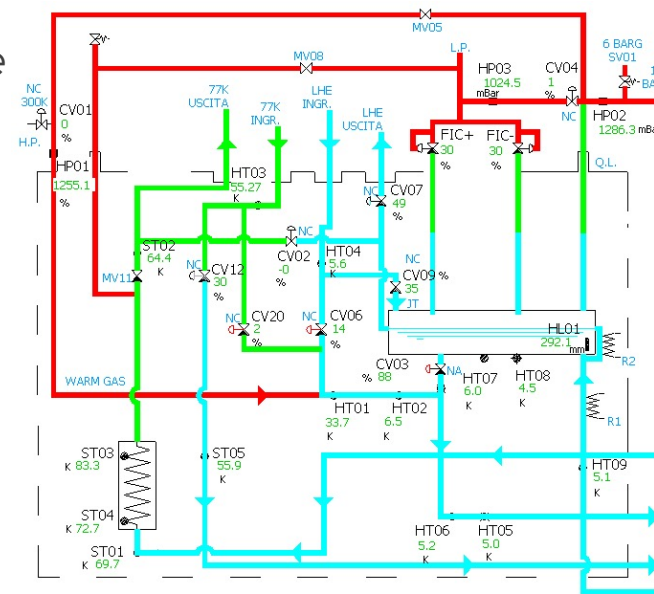
- Safety Valves replacement
- Valves functioning
- Diagnostics functioning
- Vacuum system functioning
- **Control System HW / SW refurbishment**

People:

- control system service?
- SW / PLC company

Costs:

- ?



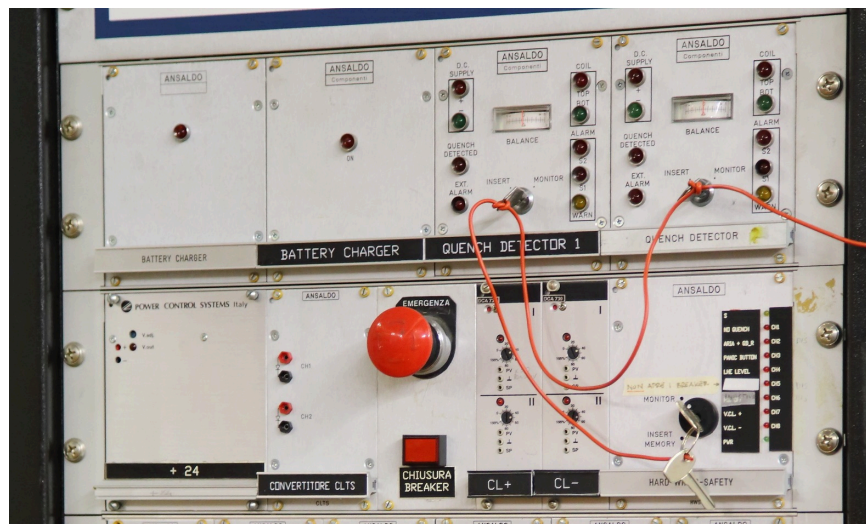
2nd step: FINUDA POWER SUPPLY CHECK



FINUDA Power Supply & quench detector need to be checked for functionality

This work should be done by the Electrotechnic Service

Some maintenance should be foreseen (water cooling...) and we must take in account the possibility that the quench detector should be replaced



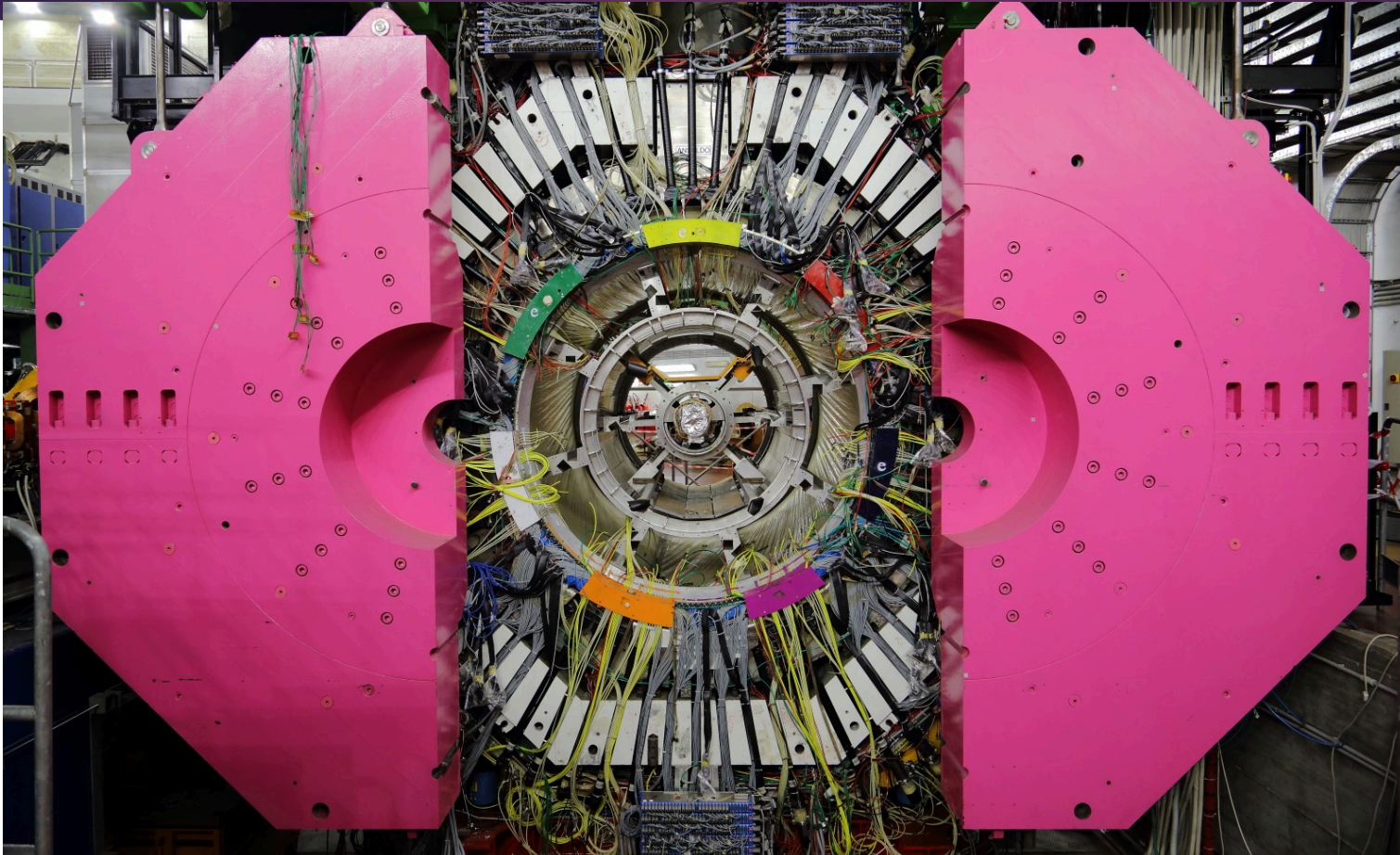
People:

- Electrotech. service

Costs:

- ?

2nd step: ENDCAPS CLOSING



People:

- ?

Costs:

- ?

OTHER TASKS

- DETECTOR DISMANTLING
- FLASH LOCATION
 - DAFNE Hall → OK
 - KLOE Hall → FINUDA moving feasibility study and cost estimation
- KLASH RESONANT CAVITY AND ITS CRYOSTAT ADAPTATION TO FLASH

