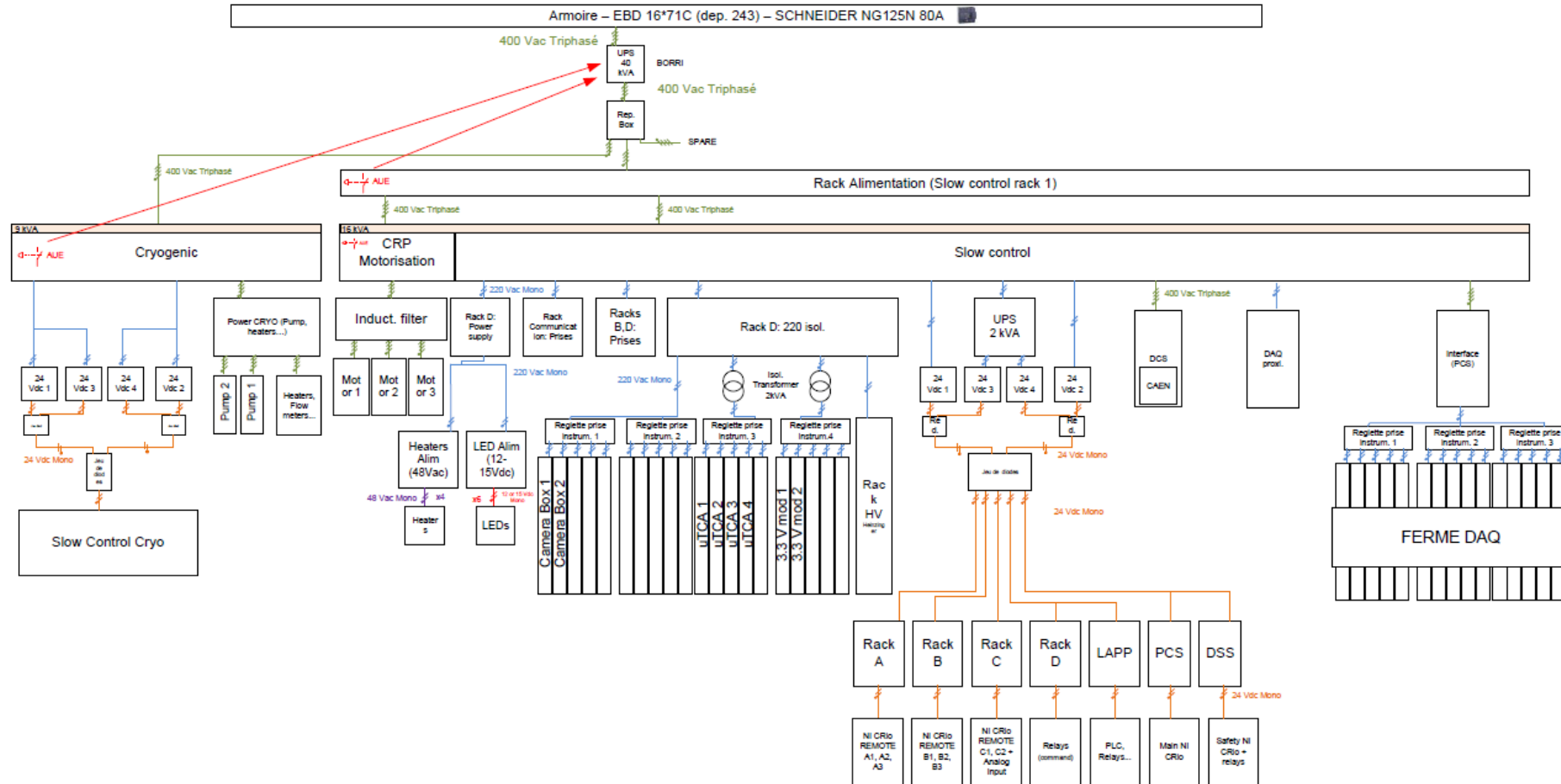# Status & Plans for WA105 Control/Safety System

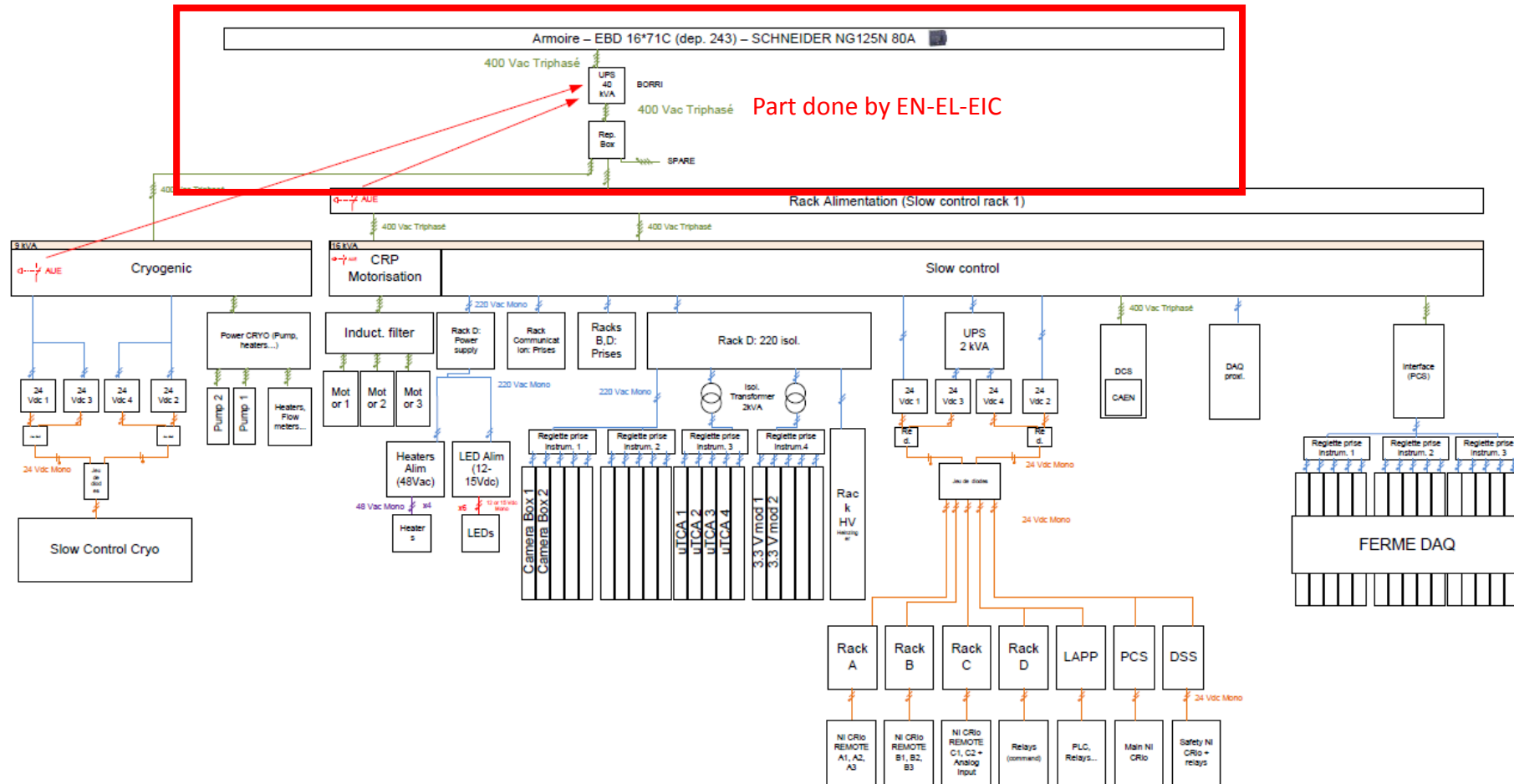Thierry VIANT   ETH Zürich
Yann-Axel RIGAUT   ETH Zürich /CERN, EP/DT-DI

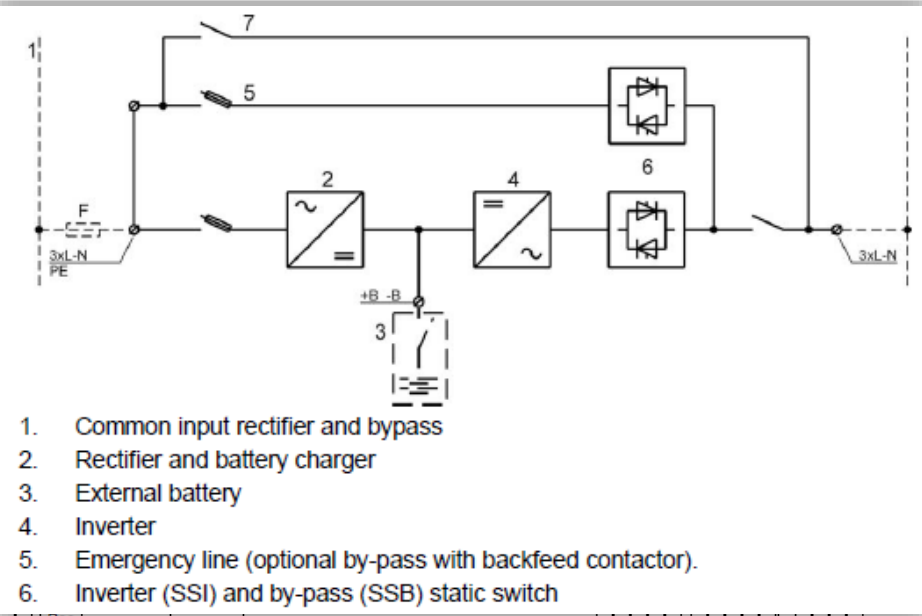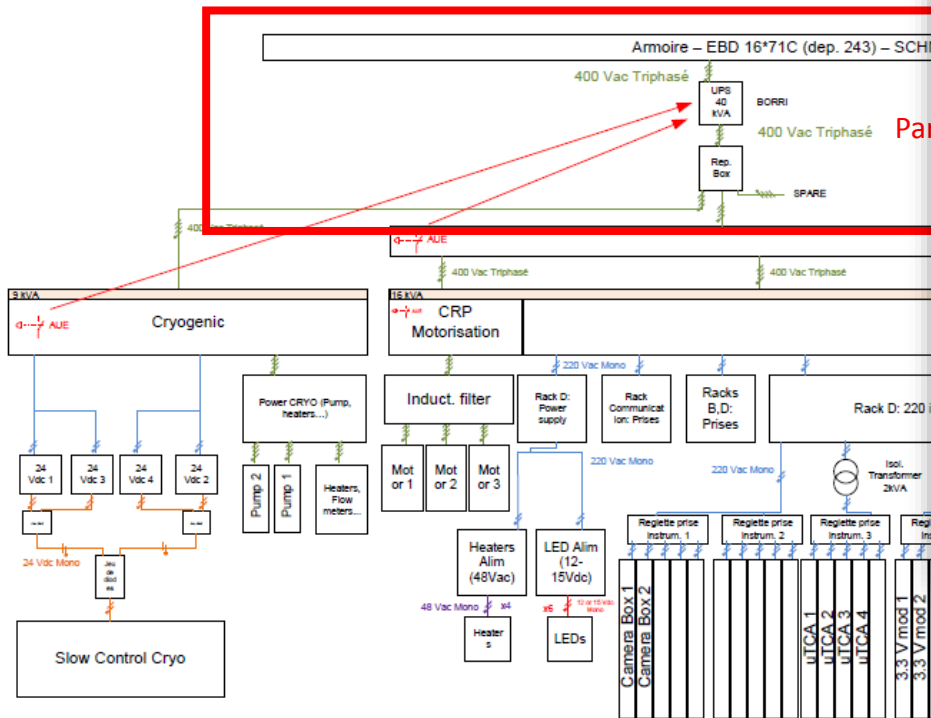WA105, SC General Meeting, CERN, 2nd June 2016
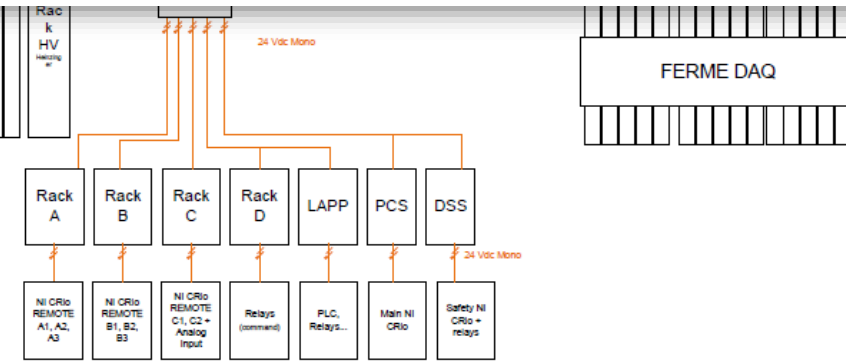
Electrical distribution (Simple version)

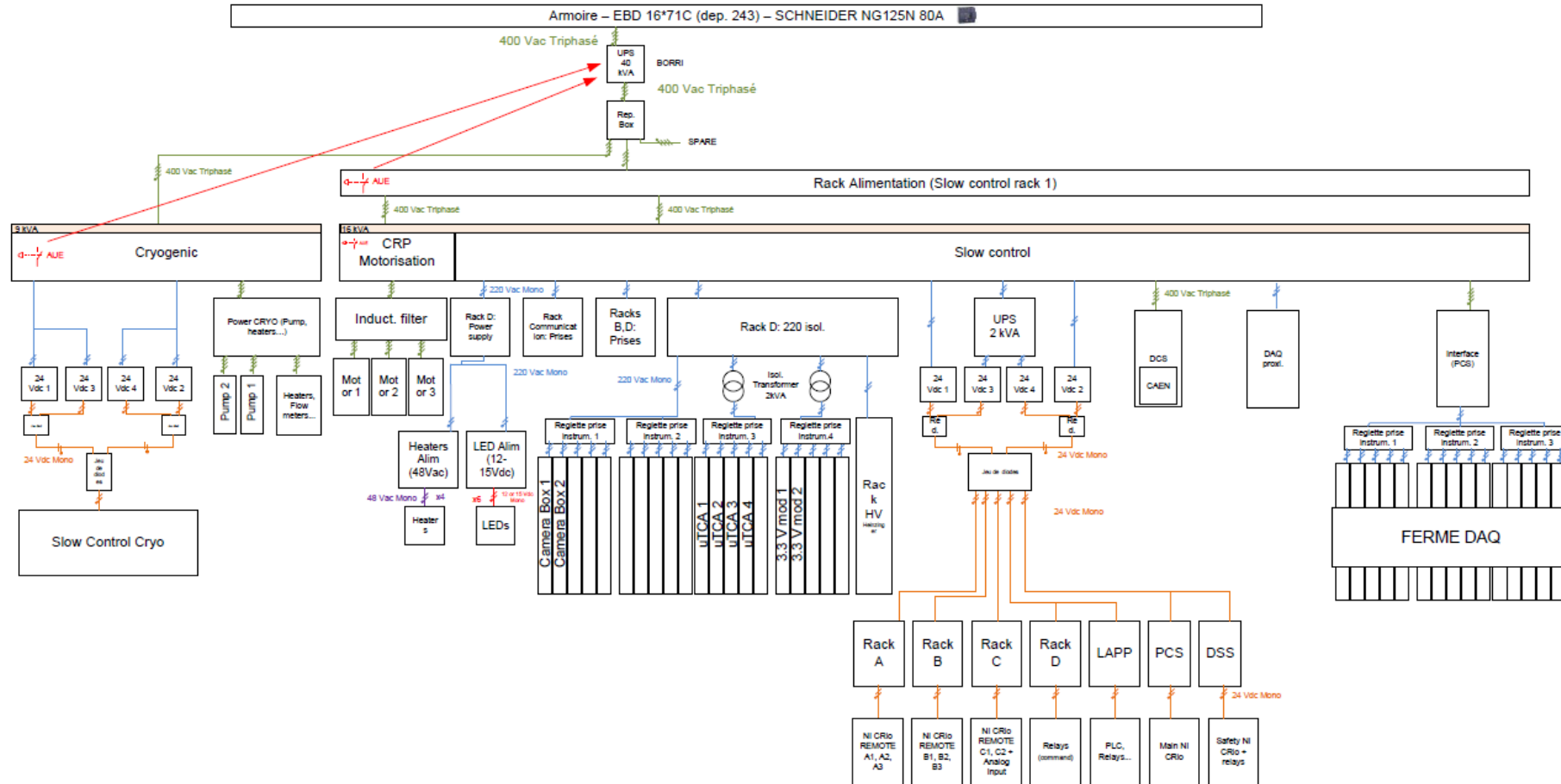# Electrical distribution (Simple version)

Electrical distribution (Simple version)

1. Common input rectifier and bypass
2. Rectifier and battery charger
3. External battery
4. Inverter
5. Emergency line (optional by-pass with backfeed contactor).
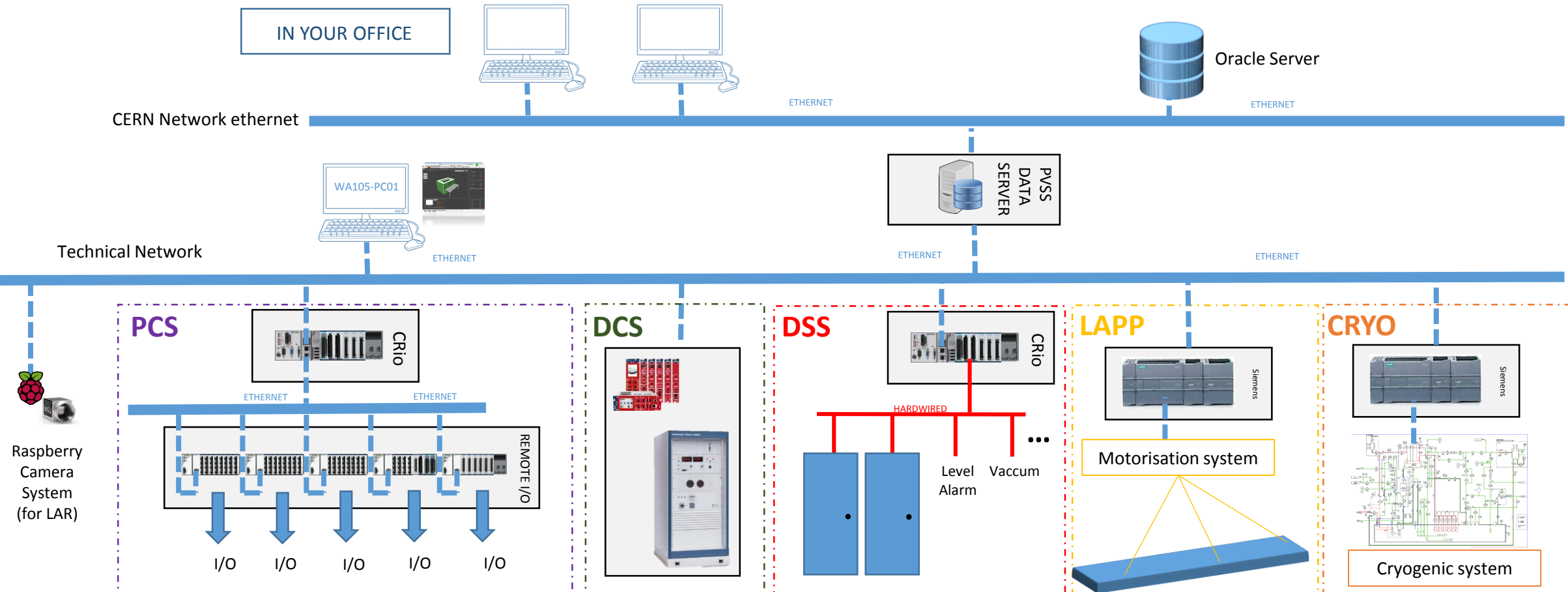6. Inverter (SSI) and by-pass (SSB) static switch

Electrical distribution (Simple version)

Global system simplificated

IN YOUR OFFICE

Oracle Server

CERN Network ethernet

ETHERNET

ETHERNET

WA105-PC01

PVSS DATA SERVER

Technical Network

ETHERNET

ETHERNET

ETHERNET

PCS

CRio

ETHERNET

ETHERNET

REMOTE I/O

I/O I/O I/O I/O I/O

Raspberry Camera System (for LAR)

DCS

DSS

CRio

HARDWIRED

Level Alarm   Vaccum

LAPP

Siemens

Motorisation system

CRYO

Siemens

Cryogenic system
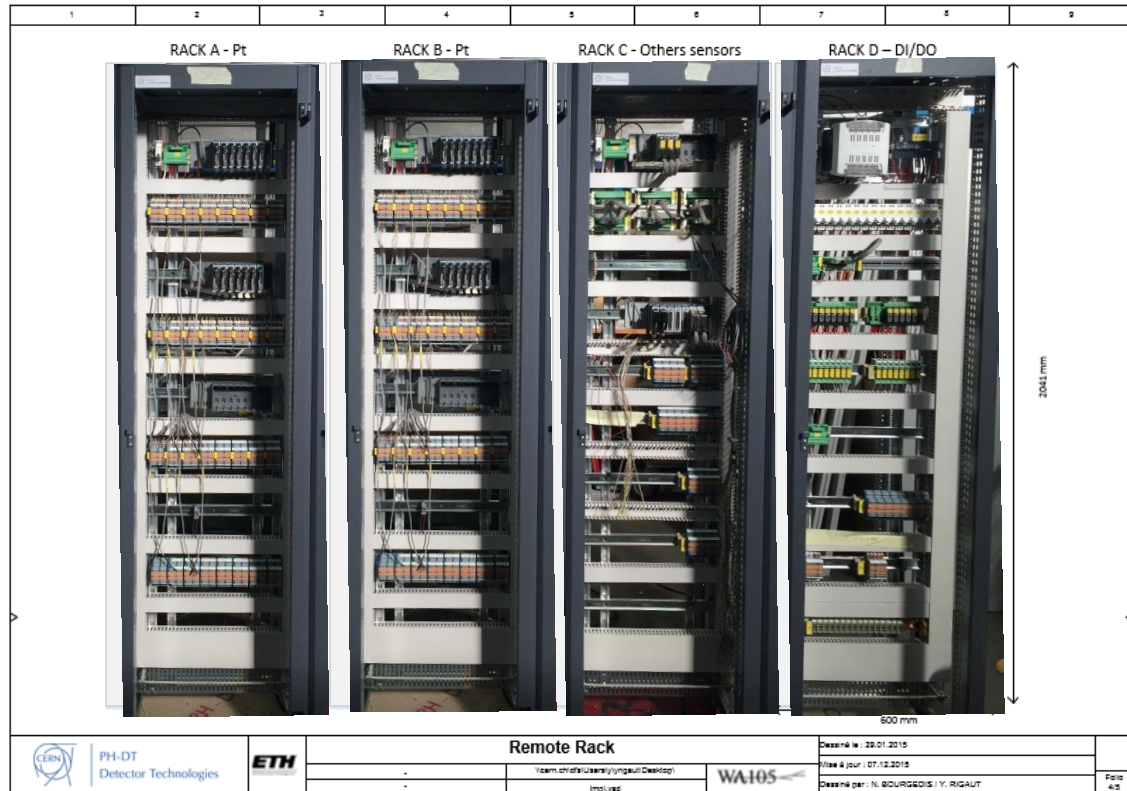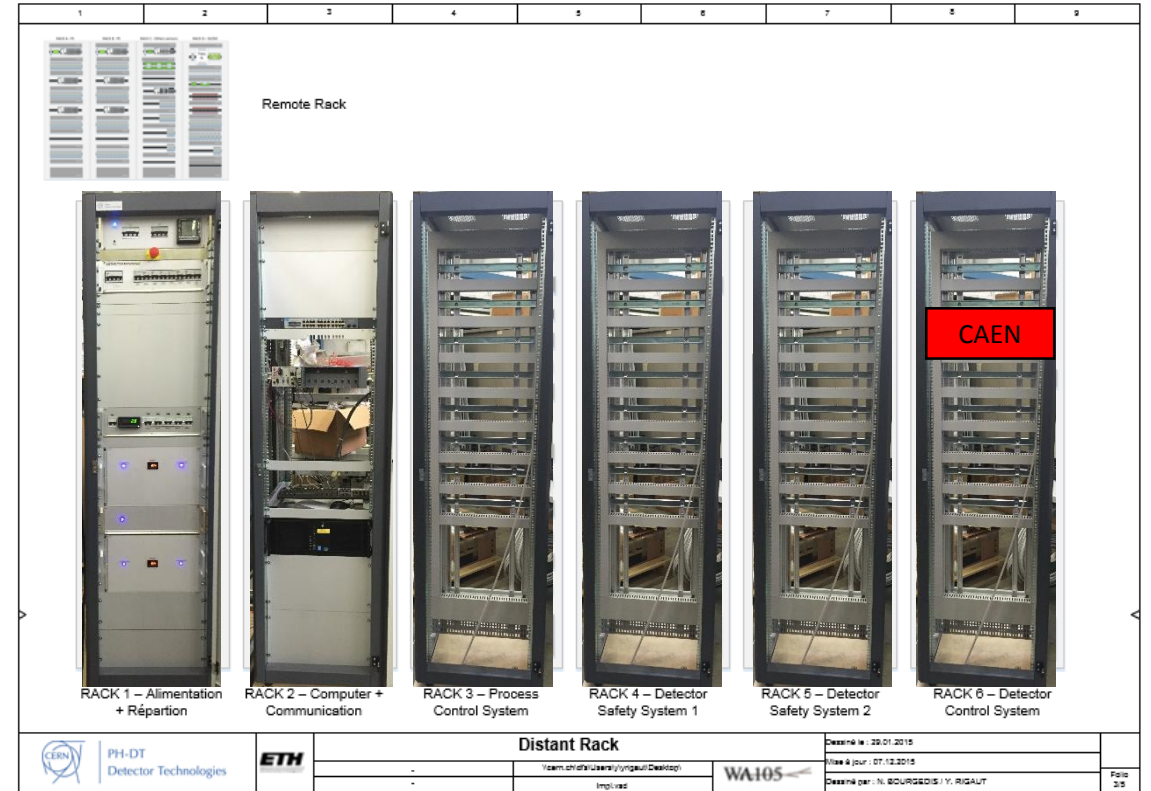
Temporary Assembly Structure

We brought 4 new racks in the building 182 near the TAS (Temporary Assembly Structure).
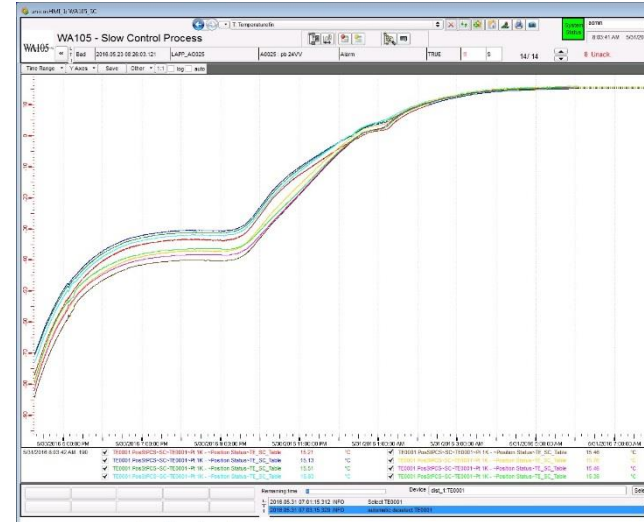
Racks construction
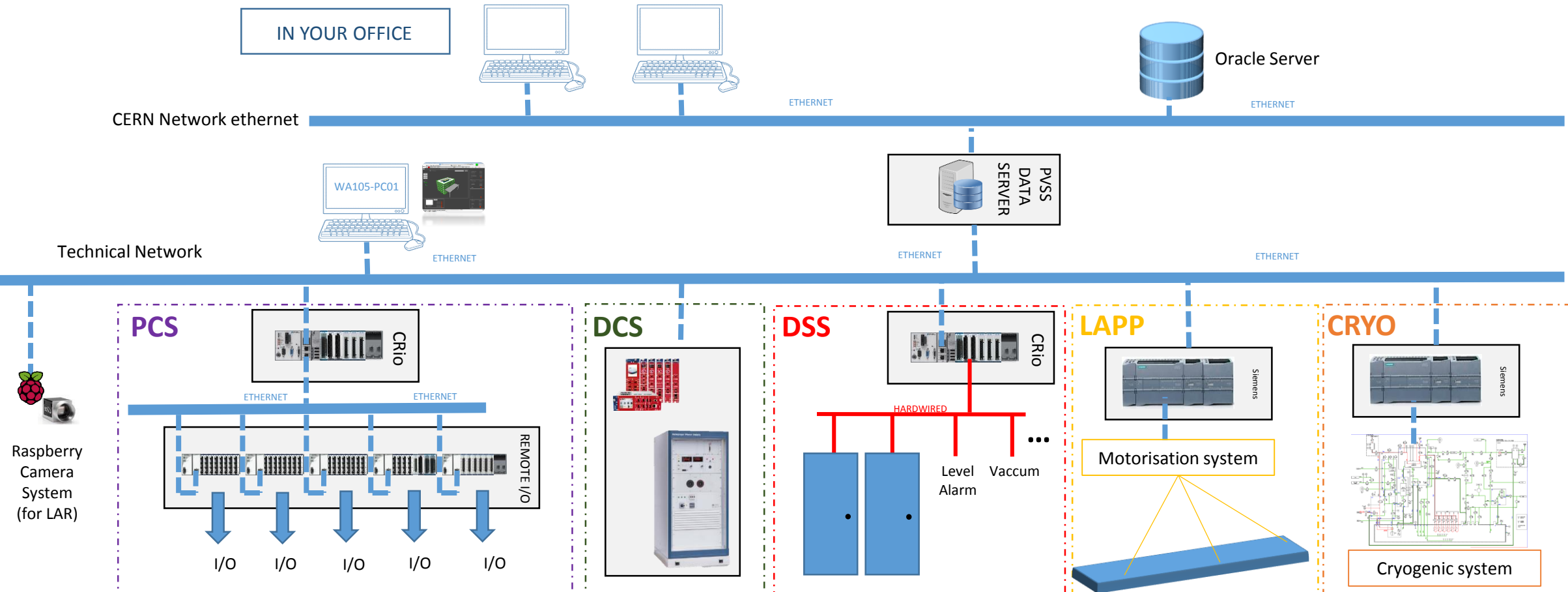

Remote Racks

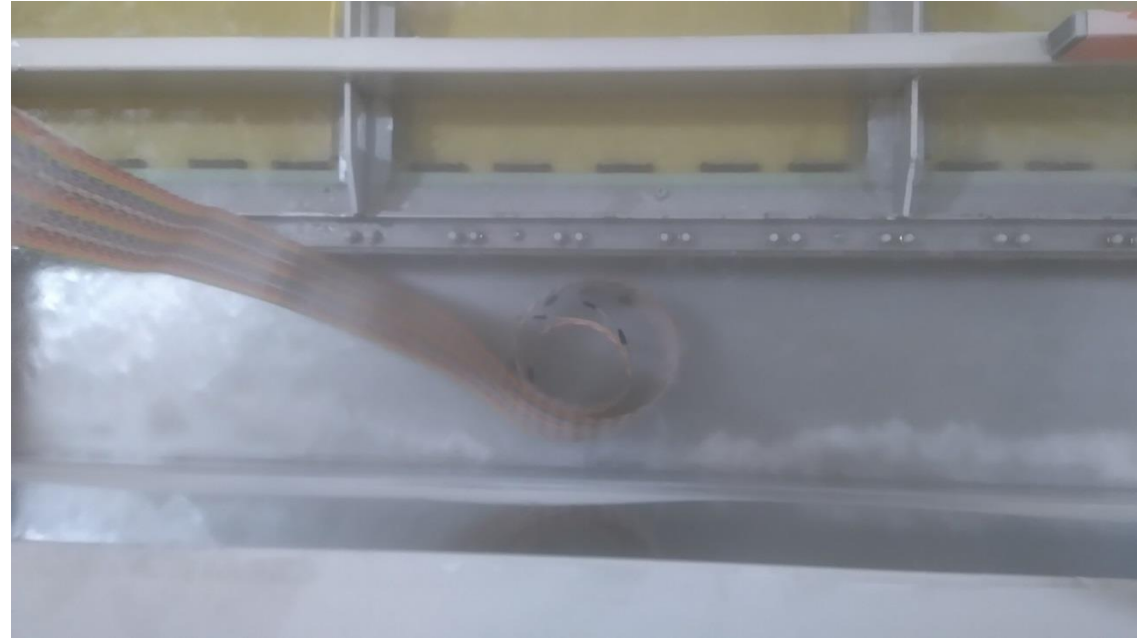*Distant Racks*

First tries of the complete chain

We have, with Cosimo, begin the first tries of the complete chain of acquisition (from the sensor to the supervision) to see if 96 Pts was correctly connected.

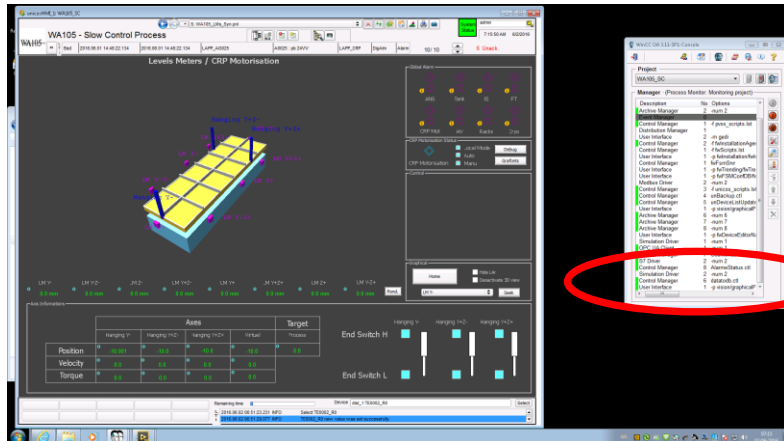# Global system simplificated

Slow control data -> PVSS

- 6 temperature sensors has been immerge inside the liquid Ar
- Sensors was connected to the PLC and temperature value recorded

- PVSS process sent parameters values to the mysql database

Slow control data -> database / WA105website / first record

PVSS interface : Windows computer

PVSS process reading slow control parameters (for this test : only Temperature 0—6)
and sending data paket to the mysql database (linux computer) by network .
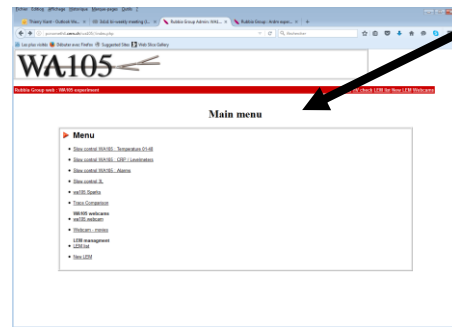<u>Linux computer not reachable:</u>   data recorded in local text file
<u>Resolution</u> : 5sec recording (only if value modification)
                  each 10 min : all datas are recorded
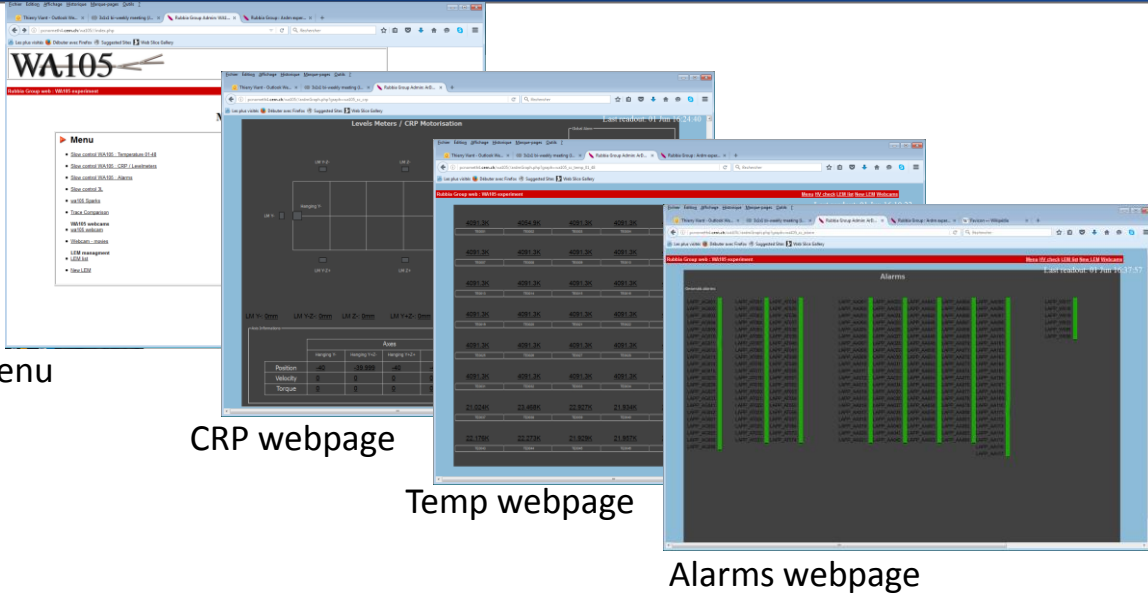
Recorded on pcnometh2 :
-    2 x 1TB configured in raid 1
-    Daily backup on CERN server
-    Mysql database

Wa105 Website interface

Website (see next slide) : pcnometh4.cern.ch/wa105

Slow control WA105website / first record

menu

CRP webpage

Temp webpage

Alarms webpage

By clicking on the last value :
- New webpage for this parameter
- the historics of this value
- zoomable
- Download values /timestamp
- parameters comparaison

url : pcnometh4.cern.ch/wa105
Login : wa105
Password : Wa105123

Thanks for your attention.

Slow Control System