



# ELENA Project

E. Harrouch



Installation follow-up & Planning update

# Follow-up

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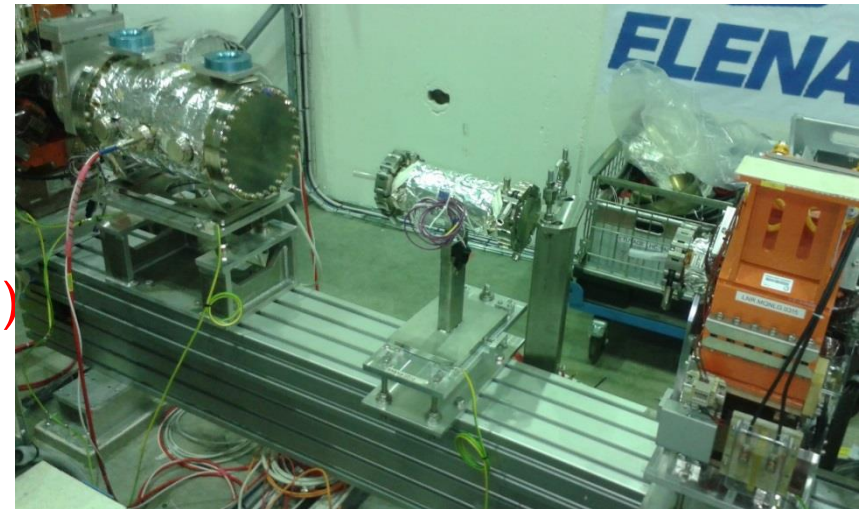
- ▶ Power room :
  - ▶ Enclosed area installed.
- ▶ Rack platform:
  - ▶ All the racks can be filled with equipment (Reminder : We use old SPS racks 800mmx600mm)



# Follow up

## ▶ Other equipment installation

- ▶ Tune measurement : Installed and aligned
- ▶ Scrapers : Installed and tested.
- ▶ Long PU : End of acceptance test foreseen at the end of VV35. Installation planned on VV36 for ring units. **Electrical problems on the TL Units investigation on-going.**
- ▶ BTV : Installed and tested
- ▶ BPMs : Installed
- ▶ Injection Kicker : Delivered to TE-VSC. Vacuum tests started (**Installation foreseen in the end of VV36 if everything go well** )
- ▶ SEMs : **First SEM : installation in progress. Shipping being arranged. Vacuum test planned to start on the 19/09. (Critical path)**



# Alignment

- ▶ Statut de l'alignement.

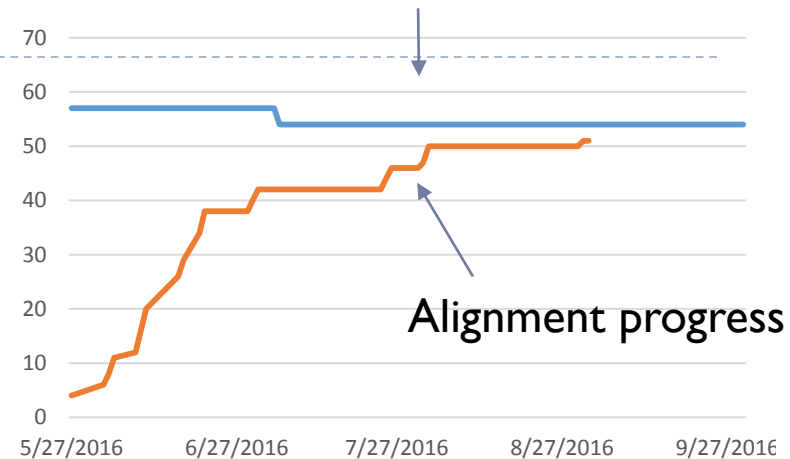
- ▶ Aimants :

- ▶ Dipôles : Paramètres disponibles, 6/6 alignés
- ▶ Skew quadrupoles : Paramètres disponibles, 2/2 alignés
- ▶ Quadrupoles : Paramètres disponibles, 15/15 alignés
- ▶ Solenoids : Paramètres disponibles. 2/2 alignés
- ▶ Sextupoles : Paramètres disponibles, 4/4 alignés
- ▶ ~~Correcteurs : Paramètres non disponibles 0/3 non alignés~~

- ▶ Autre équipement :

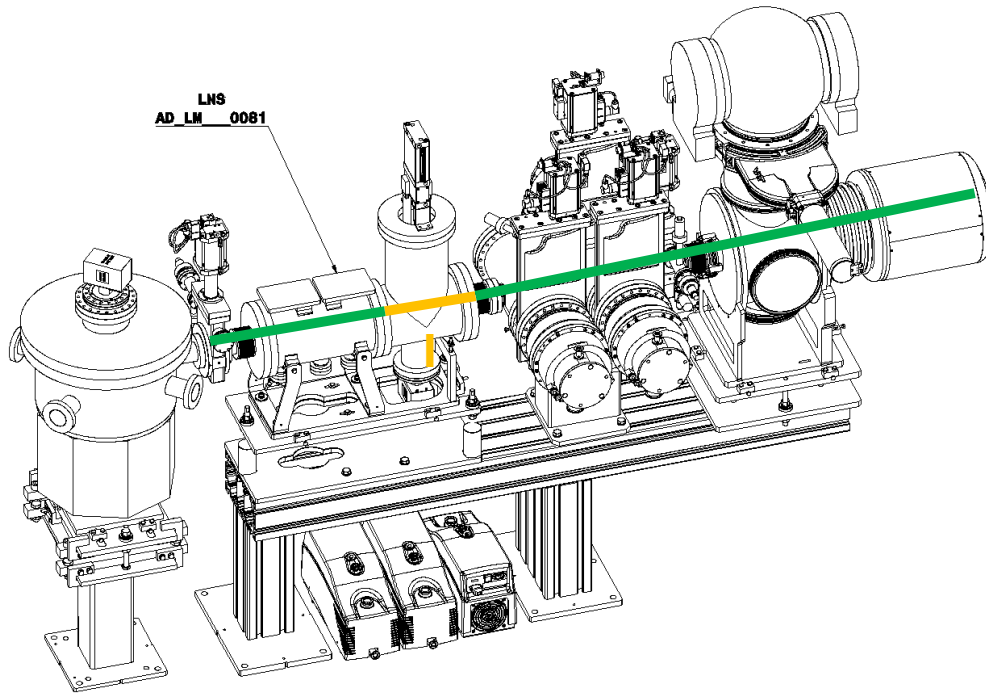
- ▶ Scrapers : Paramètres disponibles. 1/1 alignés
- ▶ RF Cavité : Paramètres disponibles. 1/1 alignés
- ▶ Longitudinal pick-up : Paramètres disponibles. 0/2 alignés
- ▶ Tune measurement : Paramètres disponibles . 2/2 alignés
- ▶ Fast deflectors : 2/2 alignés
- ▶ ZQNAs : Paramètres dispos, Alignement fait pour LNI-LNE et LNE00, LNE50 aligned LPU
- ▶ Septum : Paramètres dispo, 1/1 alignés
- ▶ BTV : Paramètres disponibles 1/1 alignés
- ▶ Injection kicker : Paramètres disponibles. 0/1 alignés

Alignment required to close vacuum



# Planning update : Sector LNS20

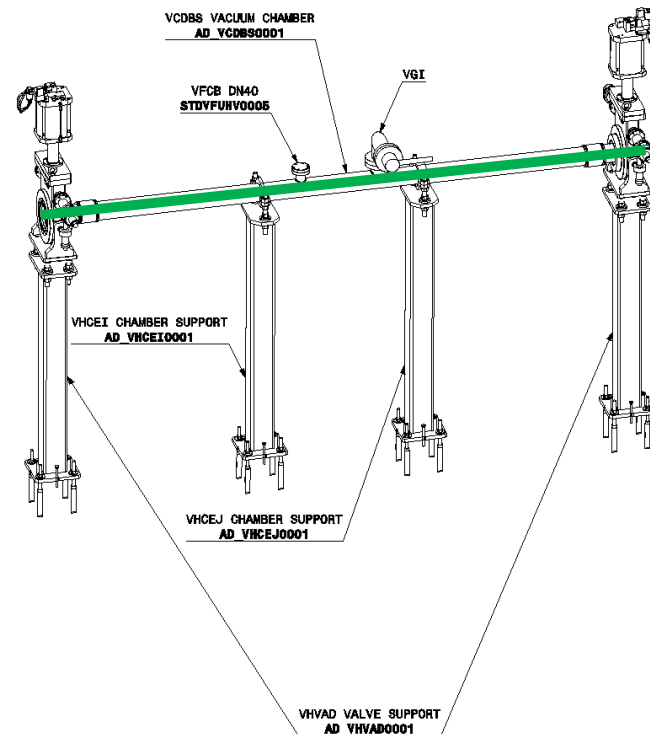
— Installed  
— Available  
— Not-available



I. SEM installed this afternoon  
Presently in metrology lab for (delicate)  
alignment

# Planning update : Sector LNR40

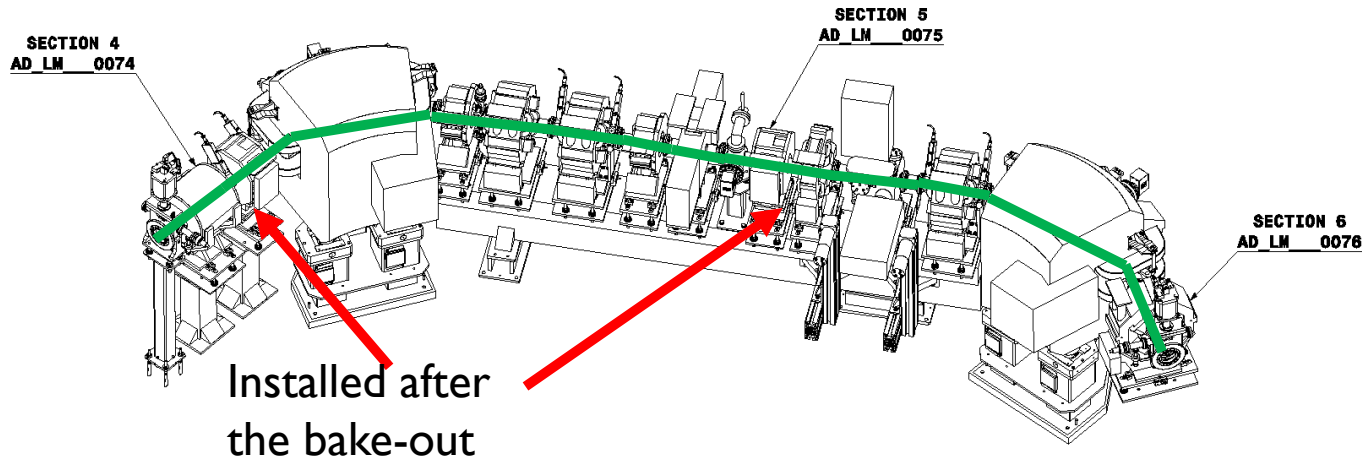
- Installed
- Available
- Not-available



**Sector LNR40 : sector baked-out and under vacuum :  $1 \times 10^{-10}$  mbars**  
**Decabling of the bake-out material foreseen for the end of the week**

# Planning update : Sector LNR50

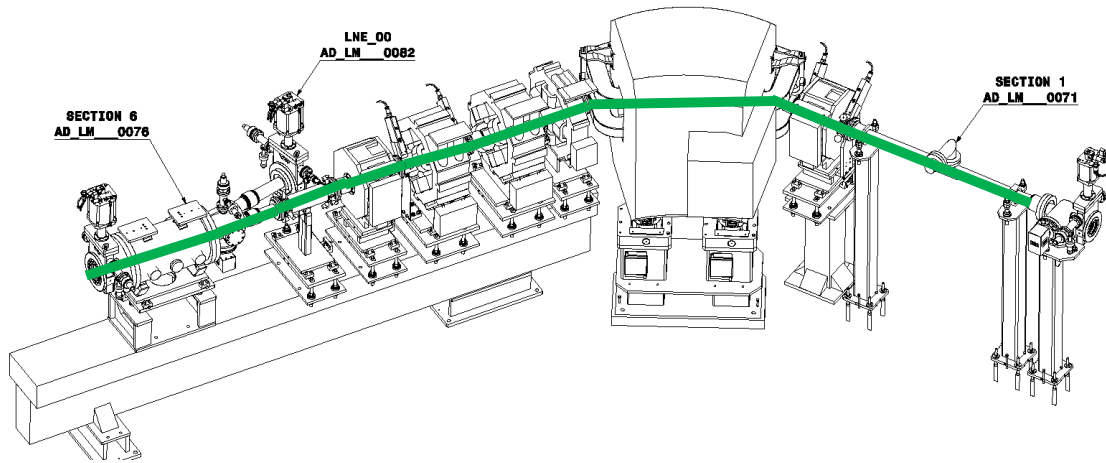
- Installed
- Available
- Not-available



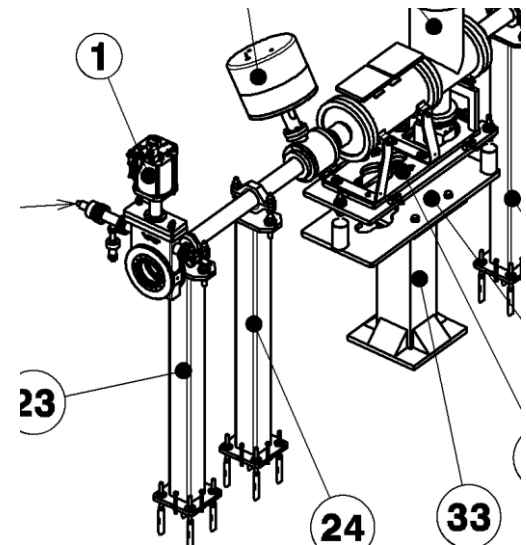
**Sector LNR50 : sector baked-out and under vacuum :**  
 **$5 \times 10^{-12}$  mbars**  
**Decabling done**

# Planning update : Sector LNR10

- Installed
- Available
- Not-available



**Sector LNR10 : sector under bake-out.**

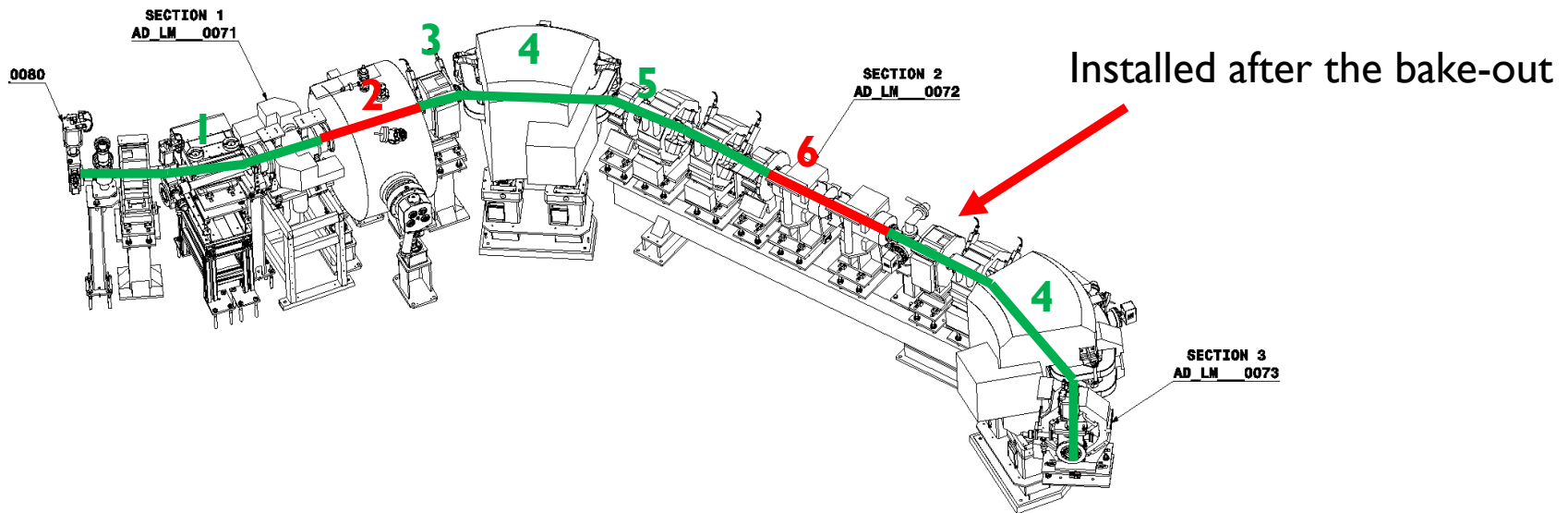


**Fast valve installation done on LNE00**



# Planning update : Sector LNR20

- Installed
- Available
- Not-available

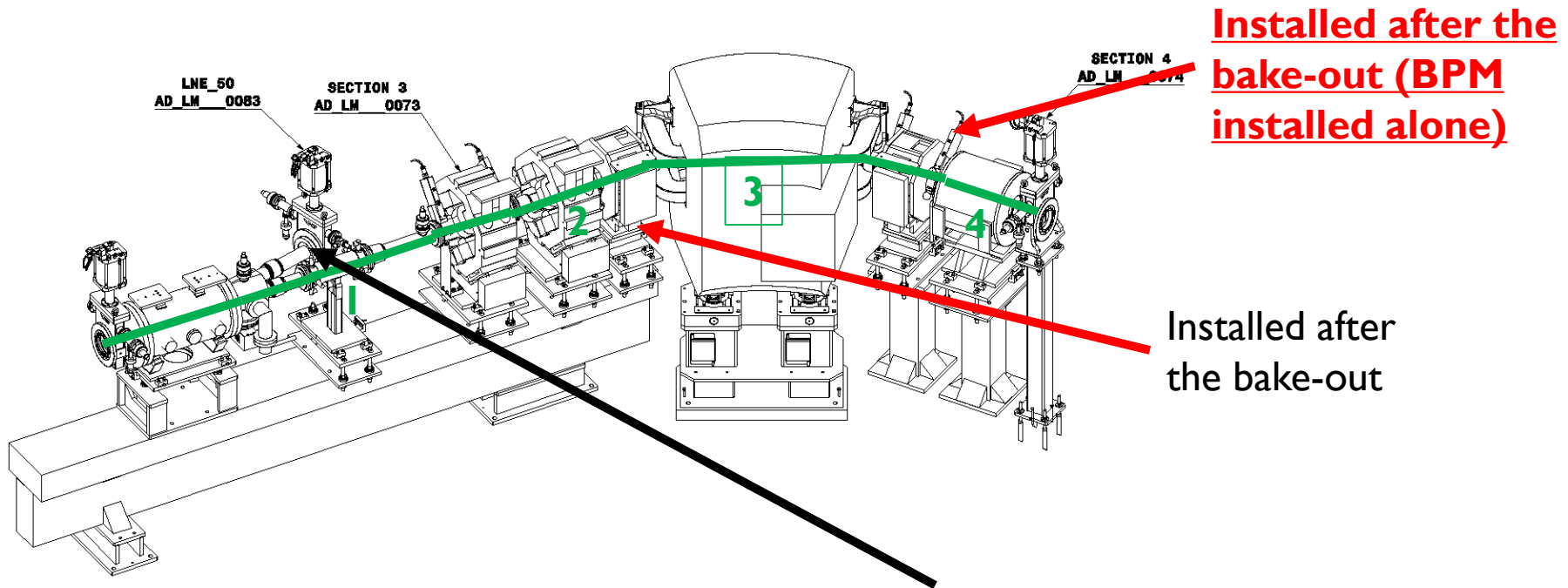


1. Y chamber installed
2. Kicker needed
3. BPM installed without its corrector
4. Chambers in the bends installed
5. Cut chamber installed,
6. LPU needed

Fast valve installation done on LNI

# Planning update : Sector LNR30

- Installed
- Available
- Not-available



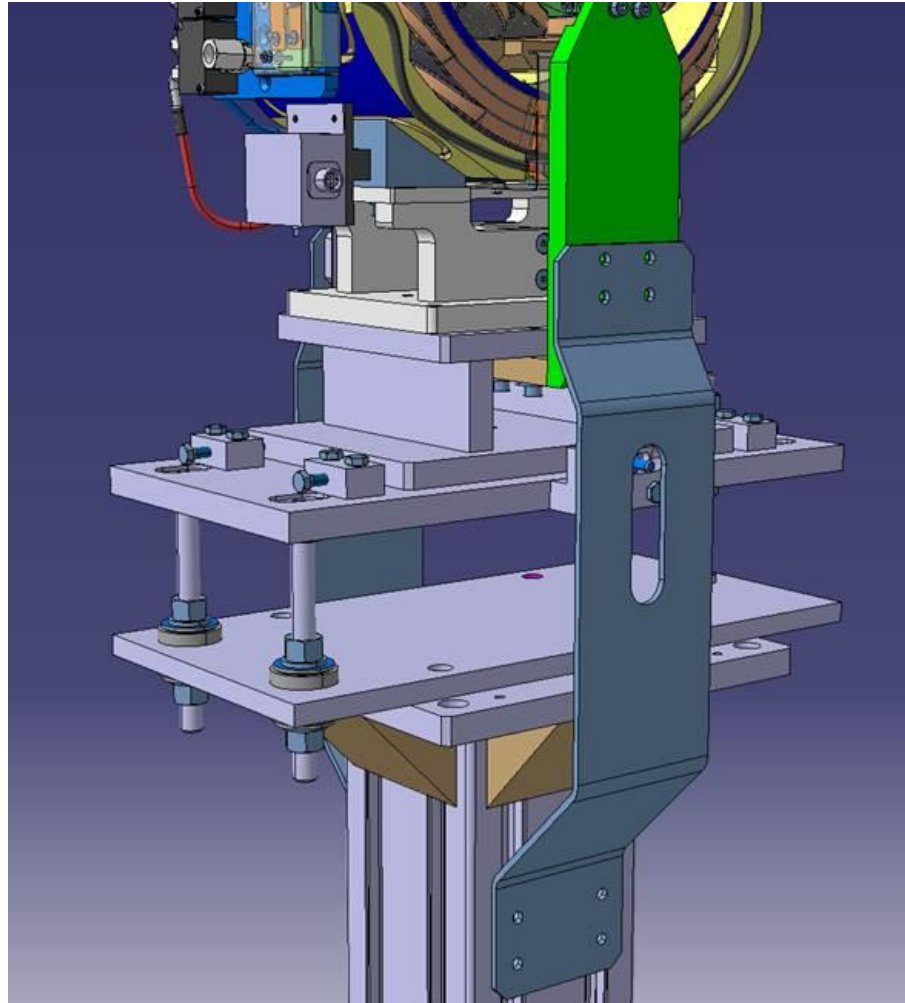
1. Tune measurement installed,
2. Cut chamber installed,
3. Support for the bending chamber installed
4. Solenoid installed

Fast valve installation  
done

Bake-out equipment : 99% installed. Bake-out will start next week.

# Corrector installation around BPMs

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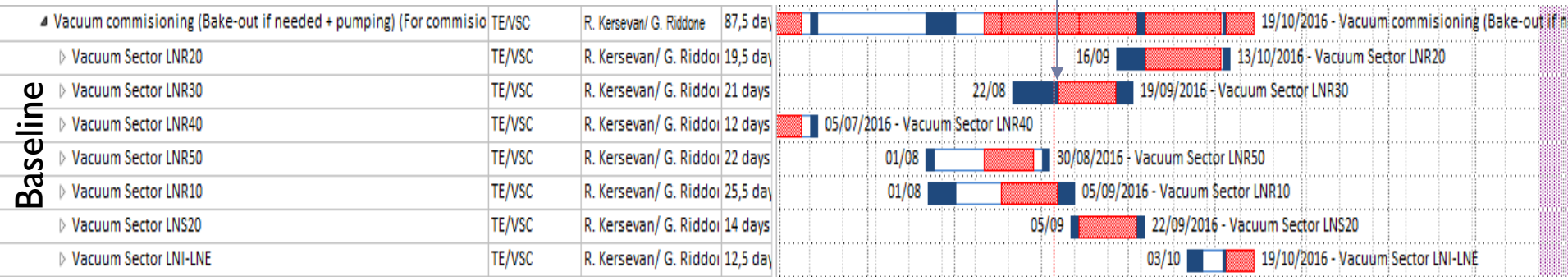
# Corrector installation around BPMs

Case of LNR 30 :

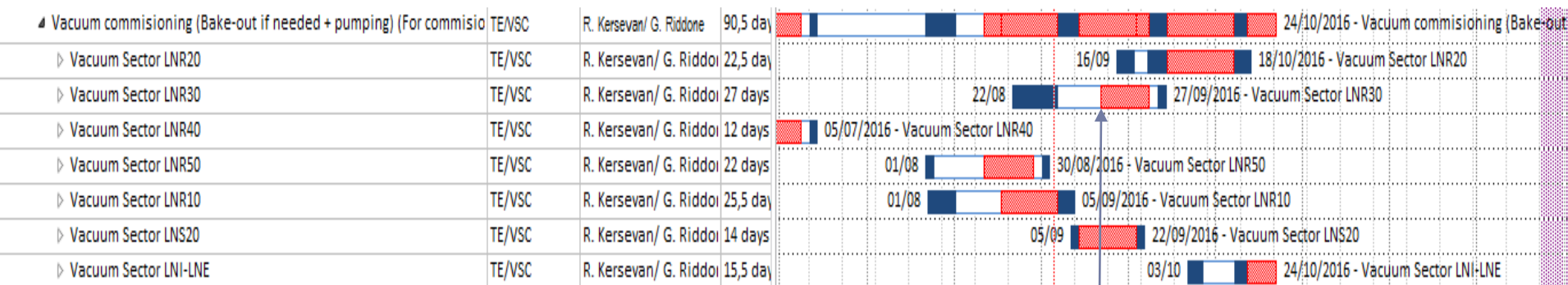
- Do we need to break the vacuum install the corrector?

If not :

Can start tomorrow



If yes :

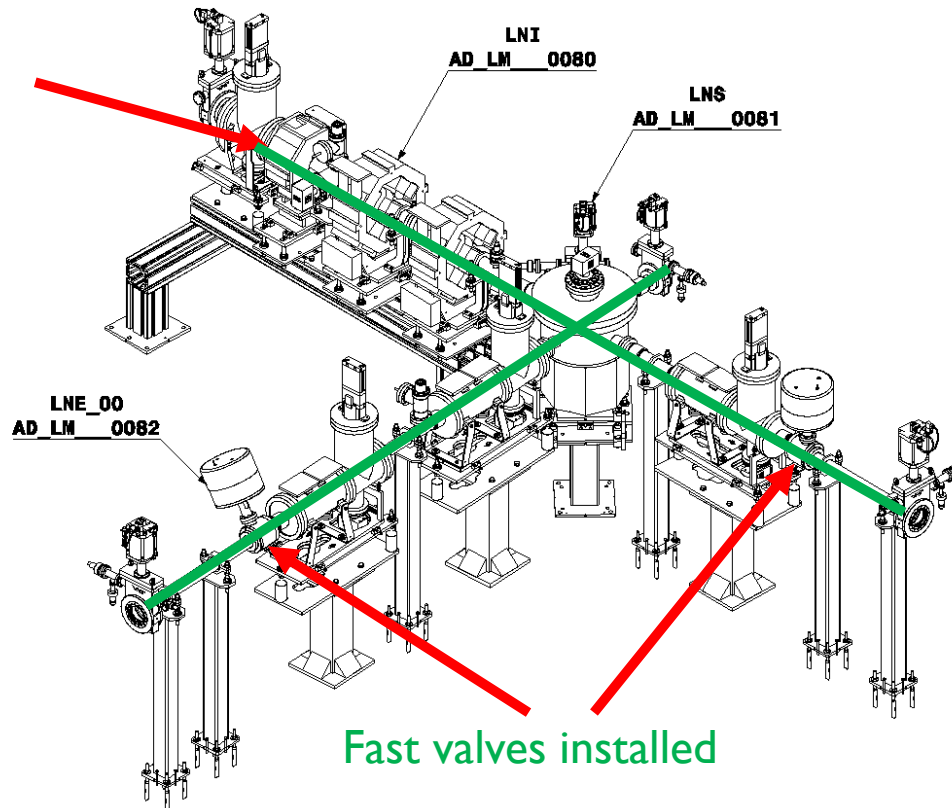


Postponed to W37 (Because of the jûne genevois)

# Planning update : Sector LNI-LNE

- Installed
- Available
- Not-available

Installed after the bakeout



▲ SEM Serie (4 Units)	Ext.	M. Hori	25 days	29/08	30/09/2016 - SEM Serie (4 Units)
Shipping + Mounting of four units	Ext.	M. Hori	3 wks	29/08	16/09/2016 - Shipping + Mounting of four units
Vacuum tests by TE-VSC	TE-VSC	R. Kersevan/ G. Riddone	2 wks	19/09	30/09/2016 - Vacuum tests by TE-VSC
▲ Vacuum Sector LNI-LNE	TE/VSC	R. Kersevan/ G. Riddone	10 days	03/10	14/10/2016 - Vacuum Sector LNI-LNE
Preparation	TE/VSC	R. Kersevan/ G. Riddone	1 wk	03/10	07/10/2016 - Preparation
Bake-out	TE/VSC	R. Kersevan/ G. Riddone	7 edays	07/10	14/10/2016 - Bake-out
Decablage	TE/VSC	R. Kersevan/ G. Riddone	2 days	13/10	14/10/2016 - Decablage

# Bake-out planning

Task	TE/VSC	Responsible	Duration	Start Date	End Date
▲ Vacuum commissioning (Bake-out if needed + pumping) (For commissio	TE/VSC	R. Kersevan/ G. Riddone	87,5 day		19/10/2016 - Vacuum commissioning (Bake-out if ne
▷ Vacuum Sector LNR20	TE/VSC	R. Kersevan/ G. Riddoi	19,5 day		16/09 - 13/10/2016 - Vacuum Sector LNR20
▷ Vacuum Sector LNR30	TE/VSC	R. Kersevan/ G. Riddoi	21 days	22/08	19/09/2016 - Vacuum Sector LNR30
▷ Vacuum Sector LNR40	TE/VSC	R. Kersevan/ G. Riddoi	12 days	05/07/2016 - Vacuum Sector LNR40	
▷ Vacuum Sector LNR50	TE/VSC	R. Kersevan/ G. Riddoi	22 days	01/08	30/08/2016 - Vacuum Sector LNR50
▷ Vacuum Sector LNR10	TE/VSC	R. Kersevan/ G. Riddoi	25,5 day	01/08	05/09/2016 - Vacuum Sector LNR10
▷ Vacuum Sector LNS20	TE/VSC	R. Kersevan/ G. Riddoi	14 days		05/09 - 22/09/2016 - Vacuum Sector LNS20
▷ Vacuum Sector LNI-LNE	TE/VSC	R. Kersevan/ G. Riddoi	12,5 day		03/10 - 19/10/2016 - Vacuum Sector LNI-LNE

- LNR40,50 bake-out completed (And decabled)
- LNR10 Bake-out on-going
- LNR30 Bake-out can start by the end of the week (If vacuum is not open for BPM installation)
- LNS20 waiting for SEM installation (Bake-out installation planned for next week?)
- LNI-LNE bake-out rescheduled (rely on the shipping of the SEM)

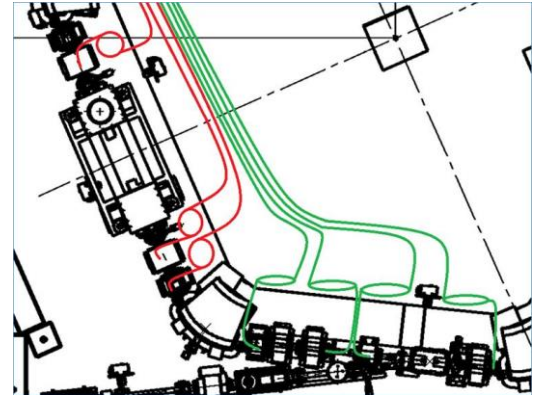
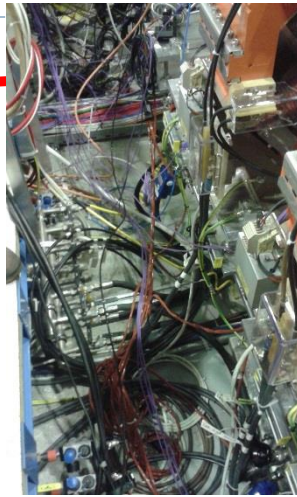
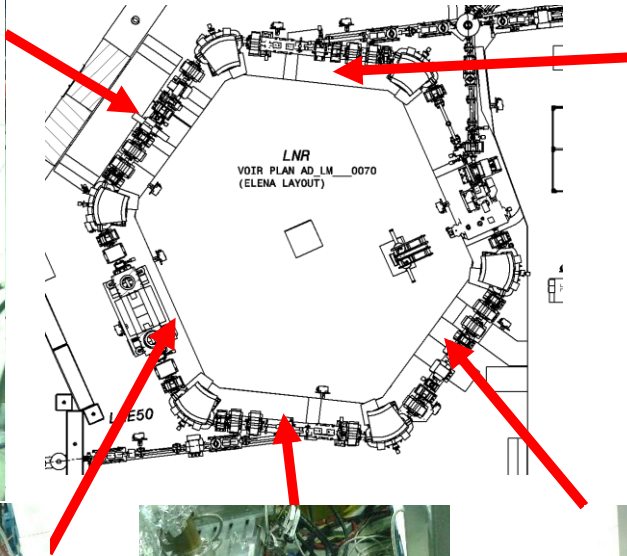
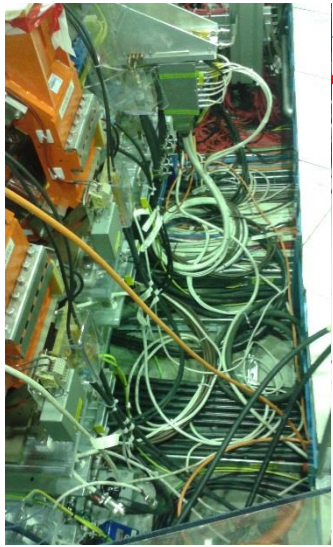
# ELENA Magnets status w34

## ▶ 12 MCCAY H/V correctors status:

- ▶ MCCAY03: Installed in position LNR.MCCAY.0130. without centering theBPM into the corrector;
- ▶ MCCAY04: Certification OK, magnetic measurements are ongoing. Installation foreseen on 31/08/2016 (Modification of mounting/removing tooling is underway);
- ▶ MCCAY02 pre-series : certification not OK, contractor repair is done, installation foreseen on 12/09/2016;
- ▶ MCCAY05 delivery is ongoing, Installation foreseen on 12/09/2016;
- ▶ MCCAY06, MCCAY07, delivery foreseen on 07/09/2016, Installation foreseen on 21/09/2016;
- ▶ MCCAY08 and MCCAY09, delivery foreseen on 13/09/2016, Installation foreseen on 27/09/2016;
- ▶ MCCAY10, to MCCAY14, delivery foreseen on end September 2016. Installation foreseen on October 2016.

TE/MSC-MNC

▶ 01/09/2016





# Summary of next week

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- ▶ End of Bake-out LNR10 and decabling (TE-VSC)
- ▶ Bake-out LNR30 (TE-VSC)
- ▶ Bake-out installation on LNS (TE-VSC)
- ▶ SEM Installation (M. Hori)
- ▶ Bake-out LNS? (TE-VSC)
- ▶ TL longitudinal pick-ups installation (BE-RF)
- ▶ End of Ring Longitudinal pick-ups acceptance test and installation (TE-VSC)
- ▶ Injection kicker : Acceptance tests (In lab) by (TE-VSC)
- ▶ Cable pulling (DC) for E-Cooler (EN-EL)

**REMINDER**

# Hardware tests

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- ▶ Any tests performed on the machine should follow the same procedure :
  - ▶ Notify Francois Butin and Jose Gascon by email with a description of the tests that you foresee.
  - ▶ Francois will then trigger a Visite d'Inspection Commune (VIC) if required
- ▶ **Please notify to me all the tests/work that will be performed after the end of the bake-out so they will be integrated to the planning.**

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# Spare slides

# Lock-outs

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**REMINDER**

- ▶ Racks sous la responsabilité de TE-EPC :
- ▶ Liste des Racks Convertisseurs se trouvant sur la plateforme :
  - ▶ RYE01 à RYE03 Powering Ring (Responsable équipement : [Kuczerowski, Nicolas](#))
  - ▶ RYE08 Ion Switch (Responsable équipement : [Machado Christophe](#))
  - ▶ RYE10 à RYE13 Transfert Line HV (Responsable équipement : [Machado Christophe](#))
  - ▶ RYE18 à RYE21 Electron Cooler Low Converters (Responsable équipement : [Yves Thurel, Ludovic Charnay](#))
- ▶ Liste des Racks Convertisseurs se trouvant en salle de puissance :
  - ▶ RA-K302 à RA-K307 ELENA Electron Cooler (Responsable équipement : [Ludovic Charnay](#))
  - ▶ RB300 et RB301 Convertisseurs APOLO + Spare (Responsable équipement : [Christophe Mutin](#))
- ▶ LNI bendings: Locked-out (C.Carli) + ground straps on magnets
- ▶ **La demande de consignation peut se faire via le service first line EPC 163668 ainsi qu'à Michal DUDEK ou un responsable d'équipement.**