

# Report: #24

## Activity: BVO LHC

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*2<sup>nd</sup> of March 2020*



**LS2**



# ARC & SAM Activities Done & Planned

## ARC Activities

### ARC12:

- Leak detection pumping ports. **Done** 
- Support for TCLD installation. Connection after alignment and leak detection. **Ongoing**
- Protections reinstallation and visual inspection (AL4030). **Planned Next 2 Weeks**

### ARC23:

- Started the pump down after empty cryostat installation. -> **Done** 
- Leak detection of new PIMs in 11R2 (CC). **Ongoing**

### ARC34, 45 & 56 and 81:

- Accumulation & pump-down for gauges calibration. **Ongoing**

### ARC78:

- Static vacuum. On standby for 11T activities.

### ARC67:

- Continue leak test of pumping ports. Waiting on the availability of industrial support or Russian team.

## SAM & IT Activities

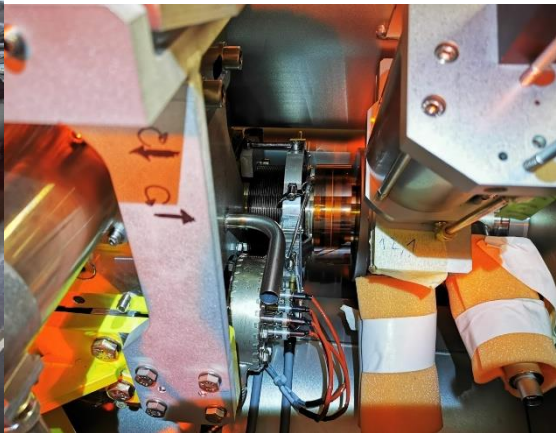
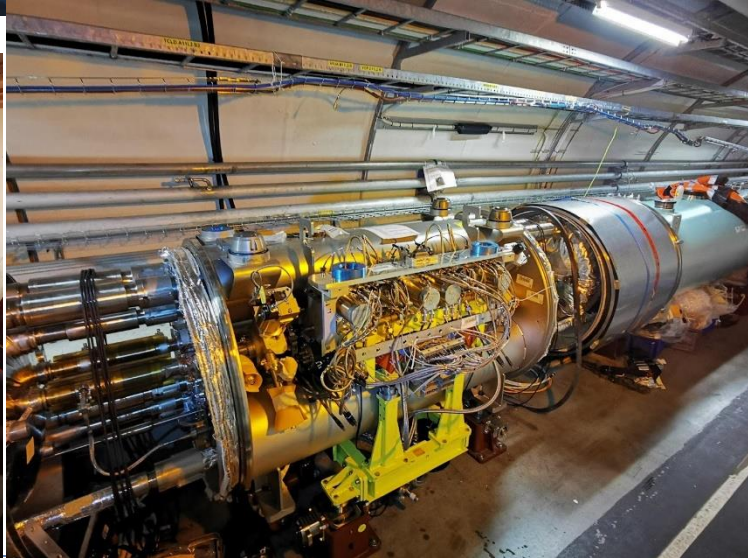
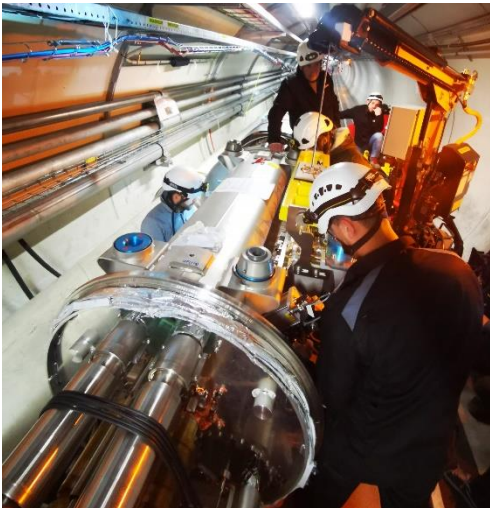
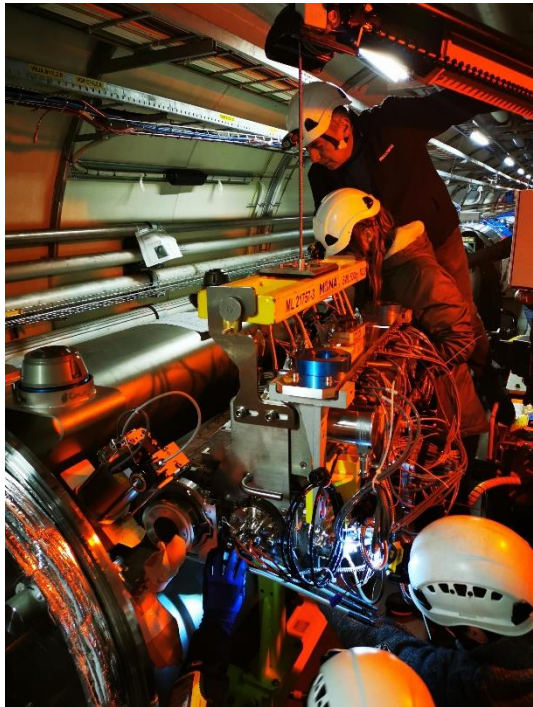
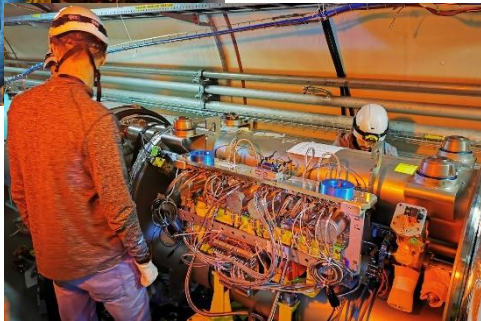
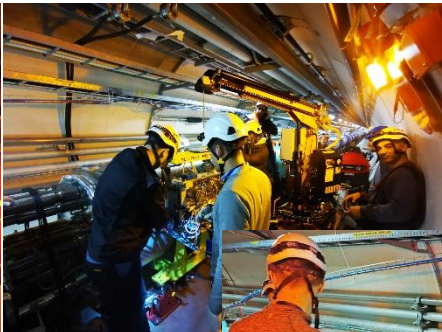
**Q5L8:** Reinstalled modules -> Pump down & leak detection -> **Done** 

**Q6L8:** Pumping port bypass installation, pump-down & leak detection -> **Done**

**ITL5:** Installation new module and aC inserts, pump-down & leak detection - **Planned Next 2 Weeks**

**ITR5:** Alignment foreseen W11.

# TCLD Installation



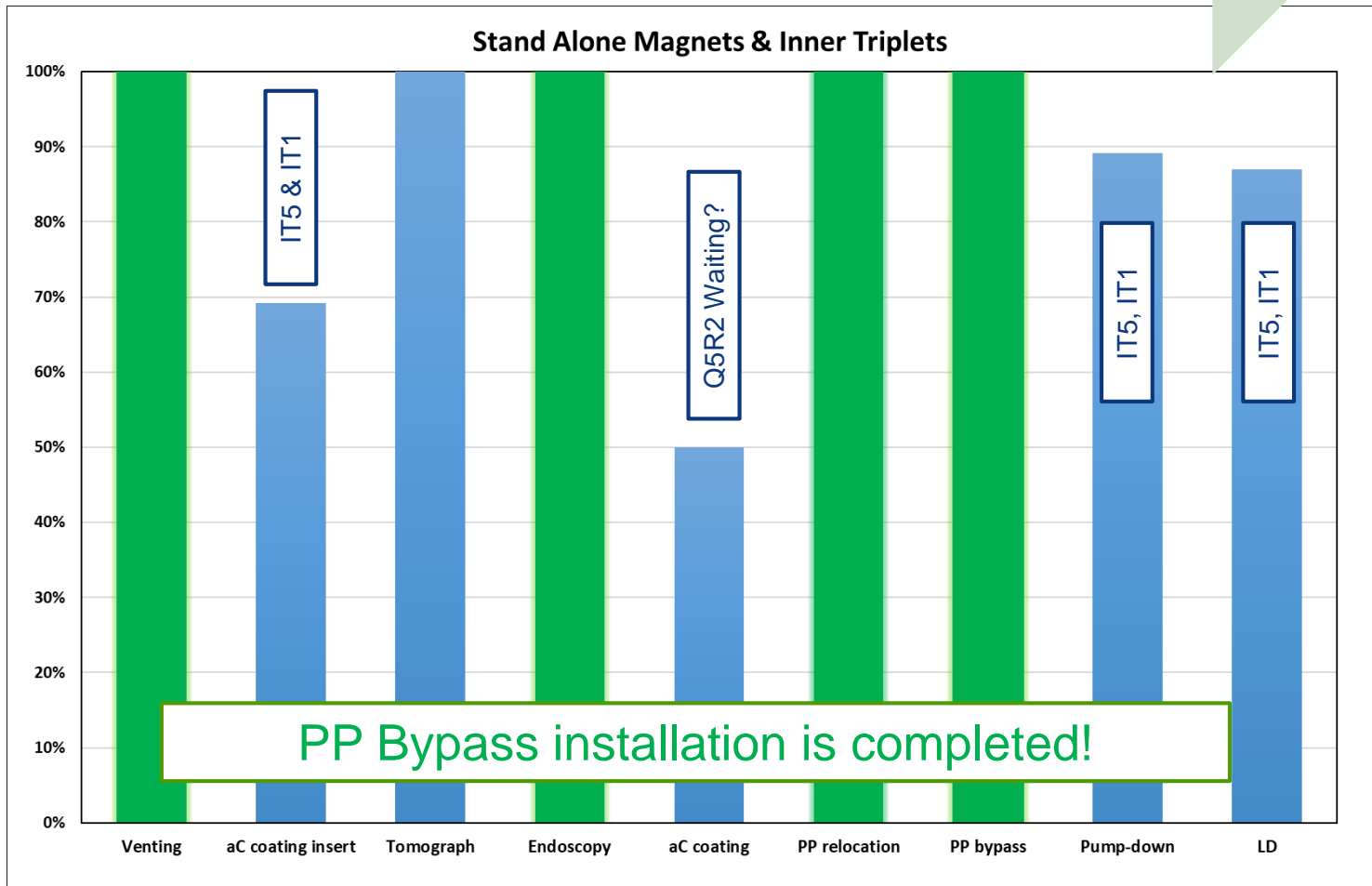
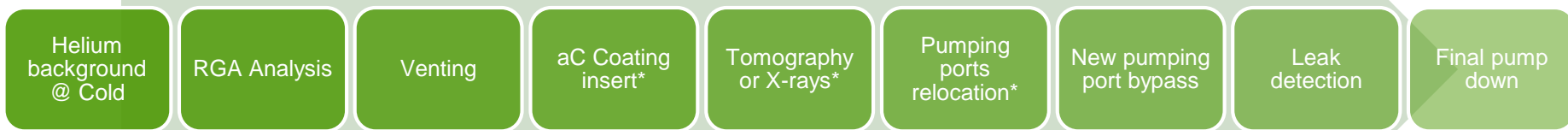
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# Overview of ARC Beam Vacuum Activities

ARC	Line	Current status	next activity	sector closure		Gauge exchange	New VVFMD pumping port	RF Ball	X-ray new PIMs	Pumpdown	LD new PIMs	add. venting N <sub>2</sub> [times]	2nd pumpdown	LD pumping ports	Static vacuum	Gauge tuning	
				Q7L	Q7R											VGR	VGP
12	V1	pumping	TCLD integration	close	close	-	<del>1</del>	ok			*	2					
	V2	pumping				3	1	ok			1						
23	V1	pumping	LD new PIMs (CC-TCLD)	close	close	3	<del>1</del>	ok				1		75%			
	V2	pumping				2	1	ok		*	2						
34	V1	pumping	Gauge tuning	close	close	1	<del>1</del>	ok									
	V2	pumping				4	<del>1</del>	ok		*	1						
45	V1	static vacuum	Gauge tuning	close	close	4	<del>1</del>	ok									
	V2	static vacuum				5	<del>1</del>	ok									
56	V1	pumping	Gauge tuning	close	close	-	<del>1</del>	ok	<del>1</del>			<del>1</del>	<del>1</del>				
	V2	pumping				1	<del>1</del>	ok									
67	V1	pumping	LD pumping ports	close	close	2	<del>1</del>	ok						80%			
	V2	pumping				2	1	ok		*							
78	V1	static vacuum	stby for 11T activities (tbc)	close	close	3	<del>1</del>	ok	<del>1</del>			2					
	V2	static vacuum				4	<del>1</del>	ok			1						
81	V1	static vacuum	Gauge tuning	close	close	3	<del>1</del>	ok			*	1					
	V2	static vacuum				3	<del>1</del>	ok									

# Overview of SAMs & ITs Beam Vacuum Activities

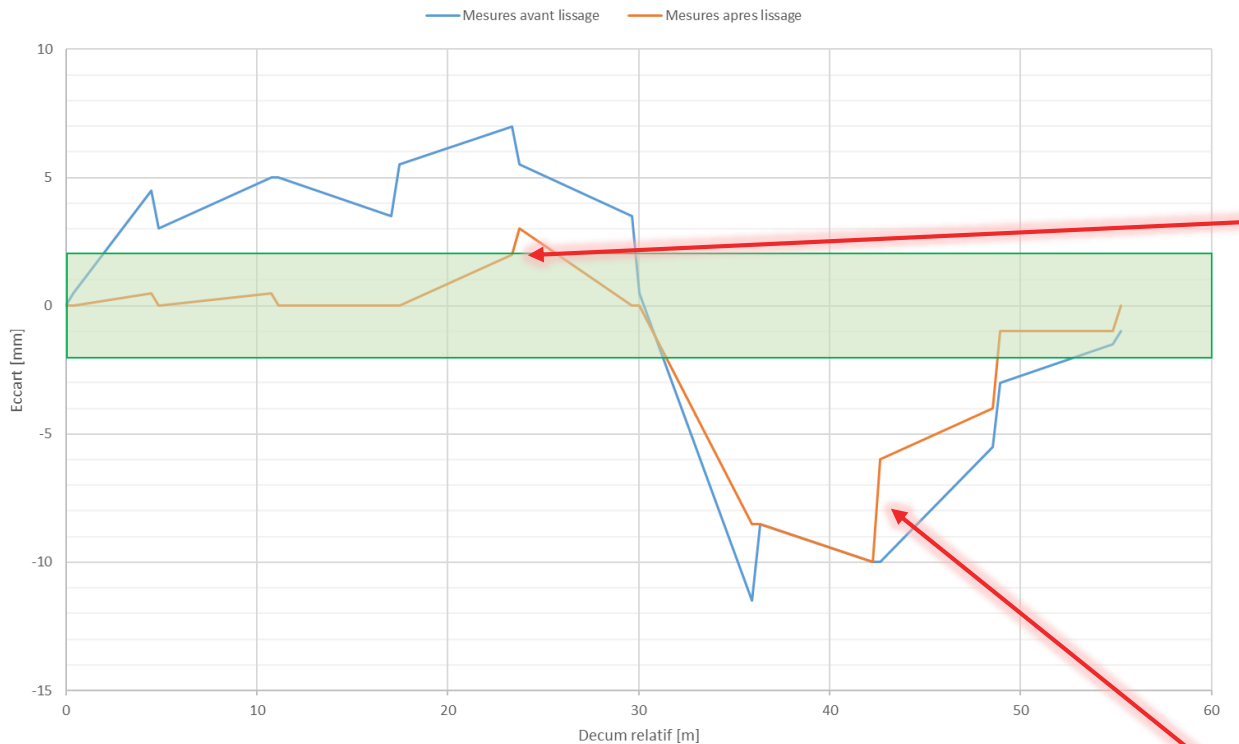


# LSS Activities Done & Planned

- **LSS2:**
  - **A4L2 - B4L2 (TDIS new layout):** Pinch-off and BO removal. **Done** 
- **LSS3:**
  - **B5L3.B:** NEG Activation -> **Done** 
  - Bake-out Equipment Removal. **Planned Next Week**
- **LSS4:**
  - **New BGC layout:** **Ongoing. New Layout drawing needed with new BGC model.**
- **LSS5:**
  - **Alignment LSS5 Left.** **Done**
  - **Alignment LSS5 Right:** Full support from Julien. **Ongoing due to problems. See next slide.**
- **LSS6:**
  - **MKB:** VPIs to be monitored to confirm if an exchange is needed. MKB testing starting next week.
  - **A5L6.B (MKD):** Sector pump-down and VPIs On. **Done**
- **LSS7:**
  - **A6R7:** 2 TCPPM -> NEG Activation. **Ongoing**
  - **B5L7:** Venting for MQWA.E5L7 removal - **Planned next week**
- **LSS8:**
  - **TI8 Upgrade:** **Finished & bakeout done** 
  - **A4R8 - B4R8 (TDIS new layout):** Pinch-off and BO removal. **Done** 
  - **A6R8.R & B:** bakeout, NEG activation and Pinch-Off -> **Done**
  - **A5L8:** New chambers production to accommodate new BPM of BE-BI.

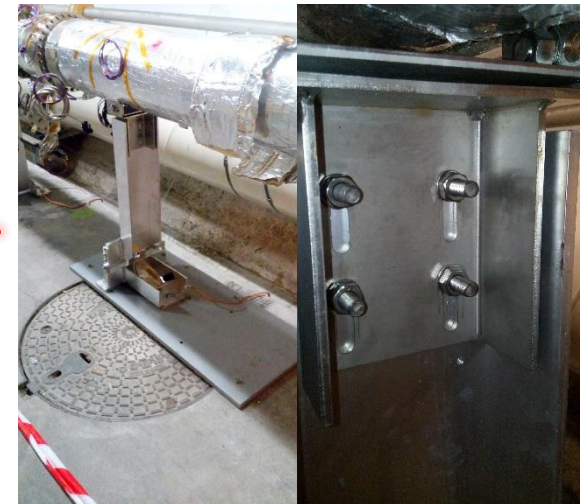
# Alignment in LSS5 Right

Defaut d'alignement LSS5R entre D1 et TAN



- Request for FSU support for W10 done for the modification of:
  - 2 support heads to allow lower height settings.
  - 2 support heads to allow higher height settings.
- Installation in the machine from W11, according to priorities.

1 support at it's lowest setting



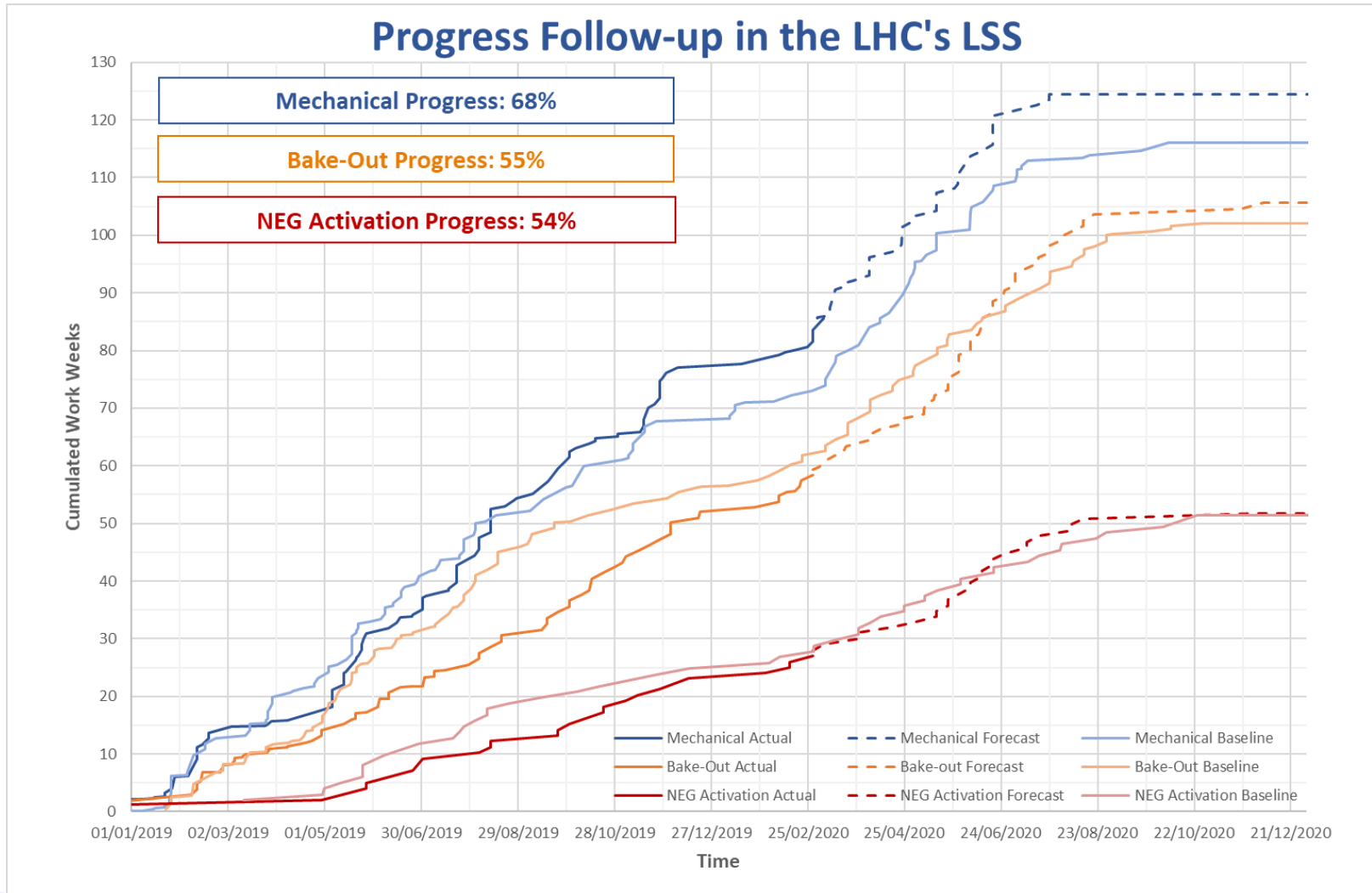
5 supports at it's highest settings

# Resources distribution

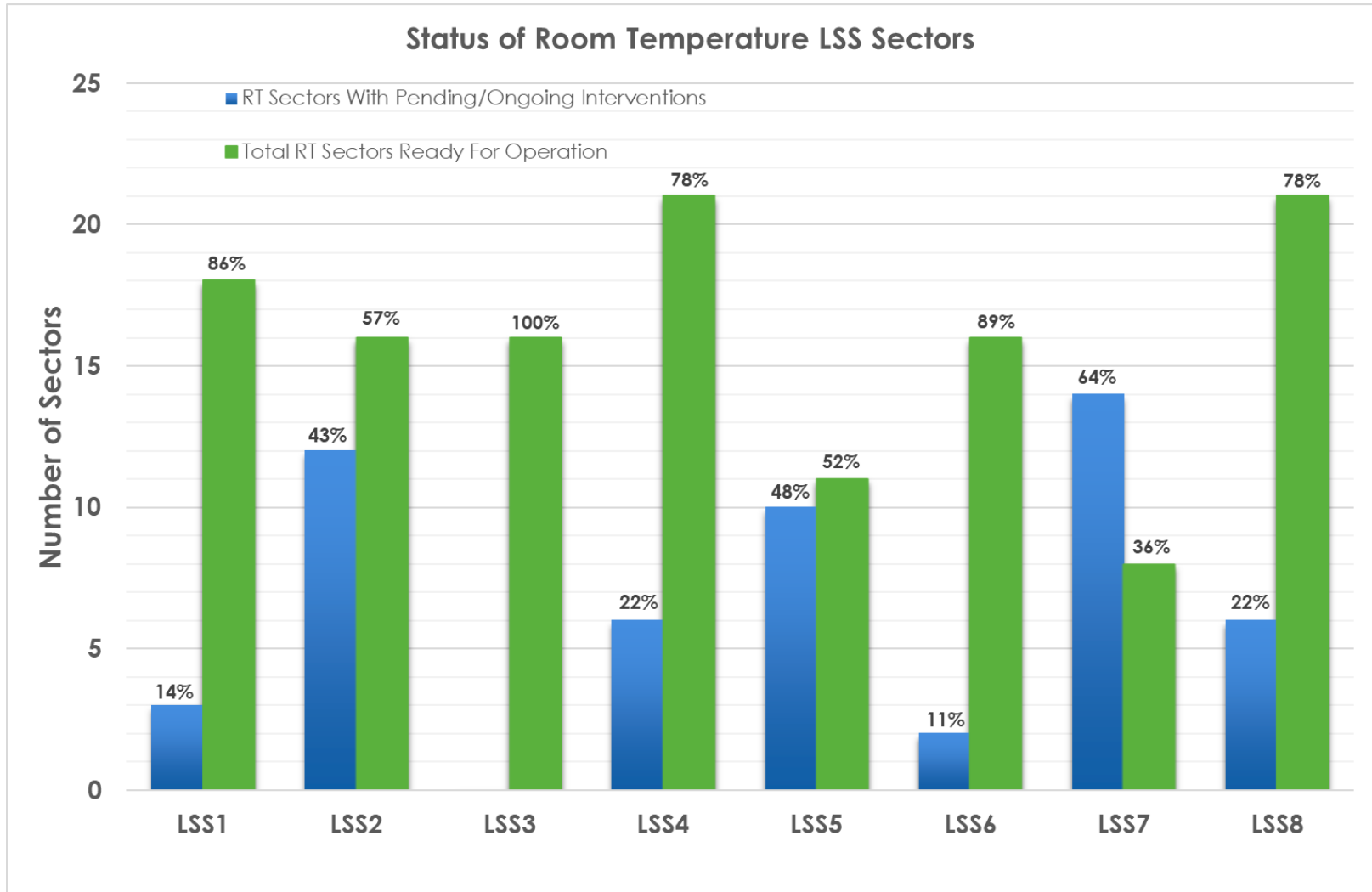
- **ARC:** Cesar & Karl
  - **LSS:** Julien & Michele & Didier
  - **Quality check:** Orlando + Piotr, Michele, Karl, Eric, .....
  - **Bakeout installation for the LSS & ELENA:** Nicolas & FSU (Eric +Karim); Support from FSU & AI4030.
- 
- 1 team of AI4030 -> Support to ARC activities & punctual mechanical work on the LSS
  - Punctual support from the Russian team for pumping straps installation in the ARCs



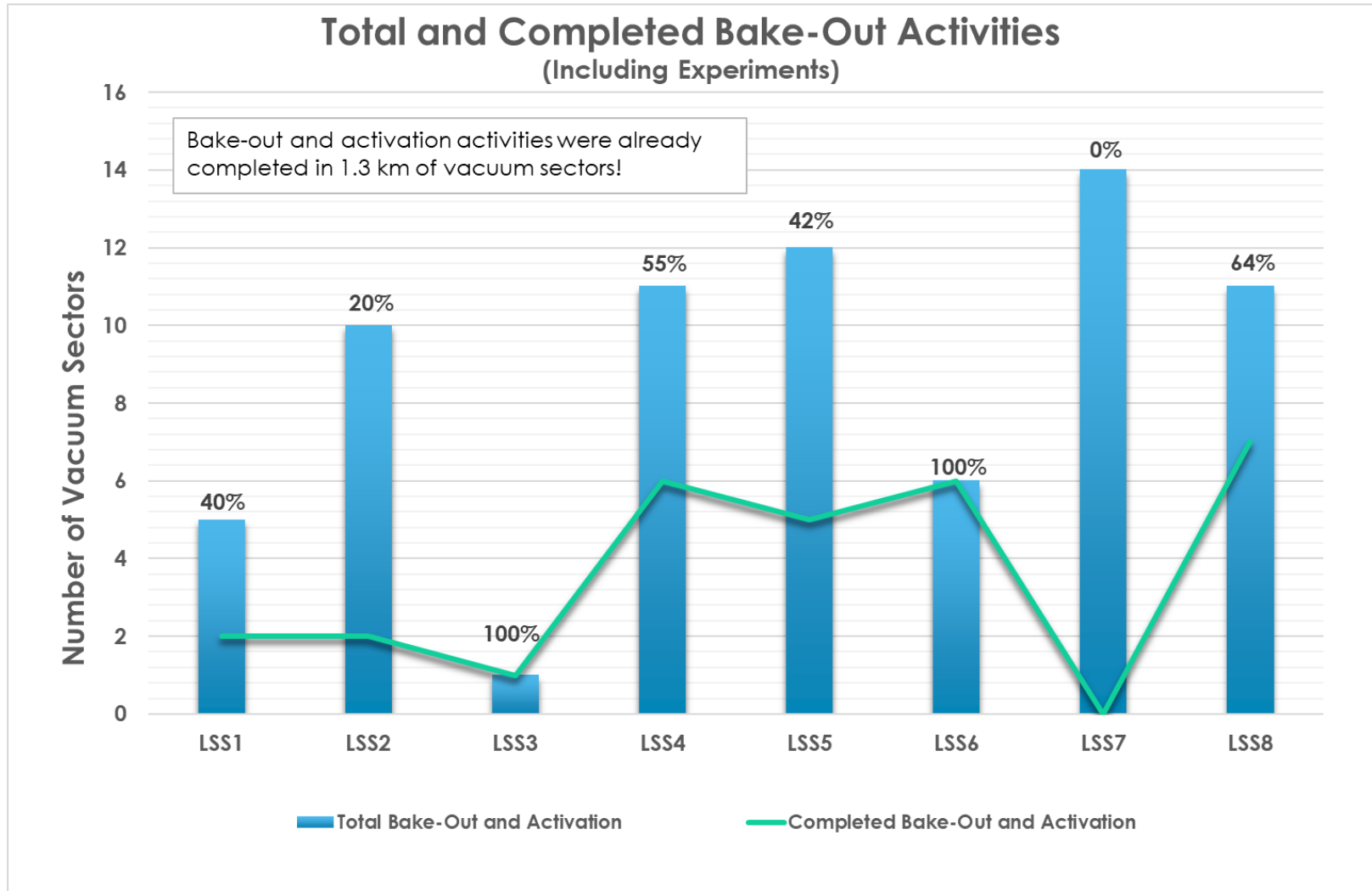
# LSS Progress Follow-up February 17<sup>th</sup> , 2020



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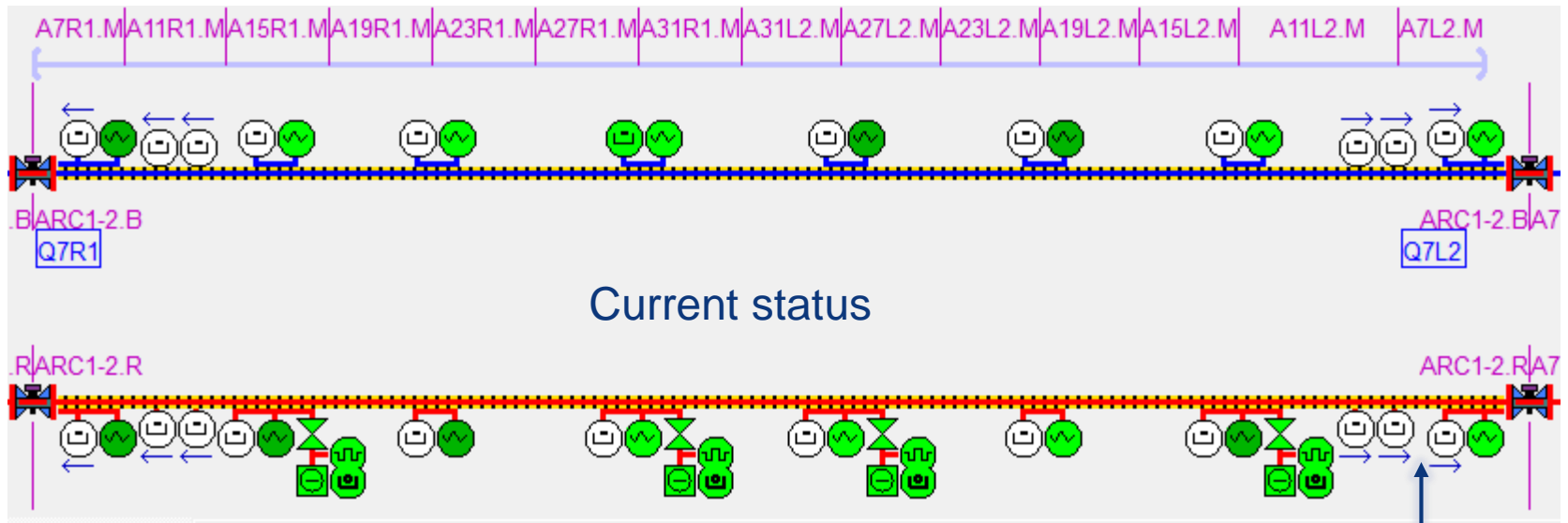


# LSS Progress Follow-up February 17<sup>th</sup> , 2020



# ARC12: TCLD what's next step?

- ARC12 is installed in ARC12. Need to decide if we go with this remote/control configuration or we postponed the bakeout and NEG activation



- No flange for the mobile group of the TCLD, missing 4 gauges, the sector valves, no ion pumps. The NEG cartridge will be in any case activated in local. Missing also the details for the new sector on the right side of the TCLD
- Same situation for ARC23, but there the TCLD will be installed not before April, so plenty of time to update the layout, hopefully.

TCLD

Do we have the green light to go on with the activities?

**Thank you !**



**LS2**

