
Delivering the LOFAR2.0 Observing Capabilities

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LOFAR Family Meeting

23 September 2025

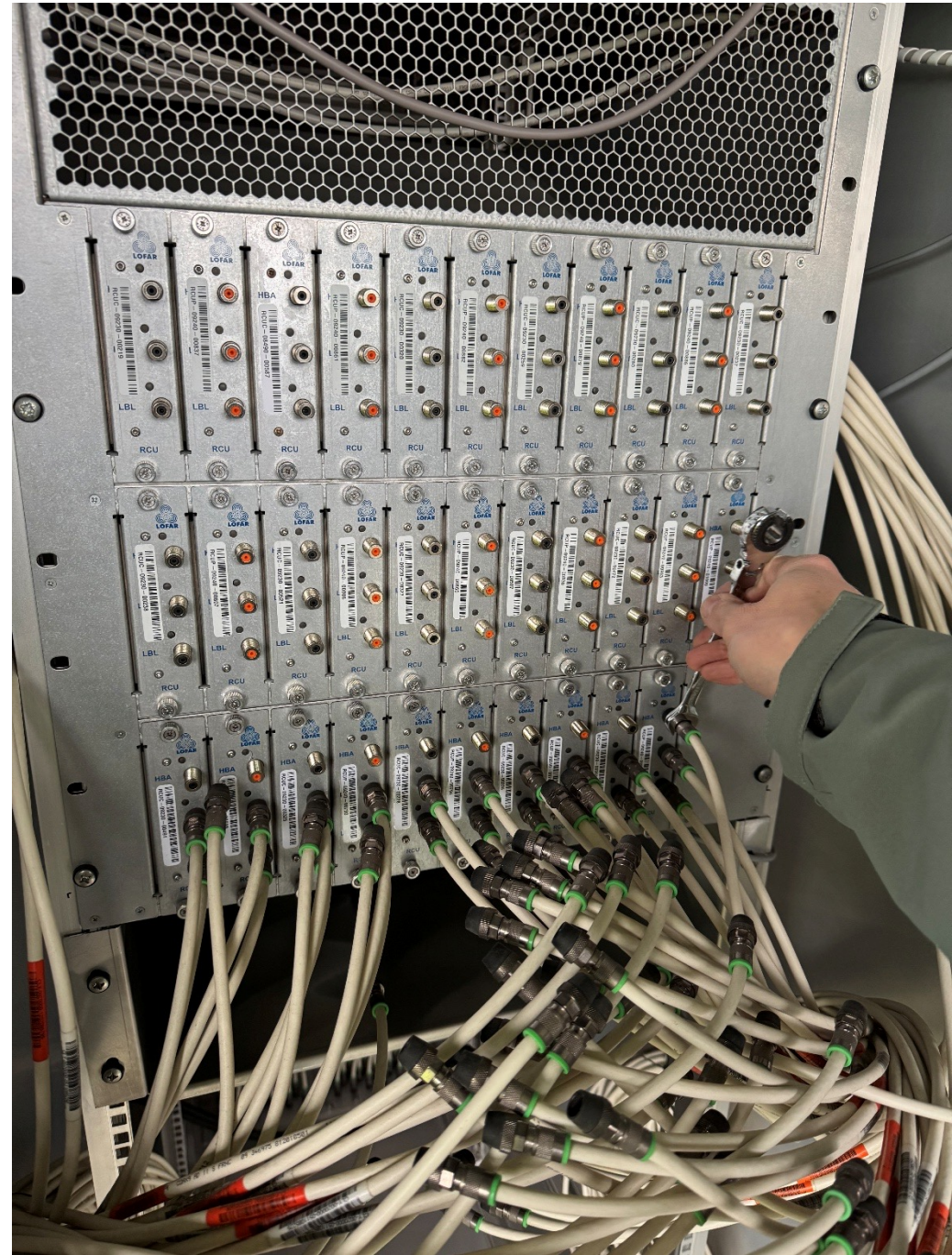


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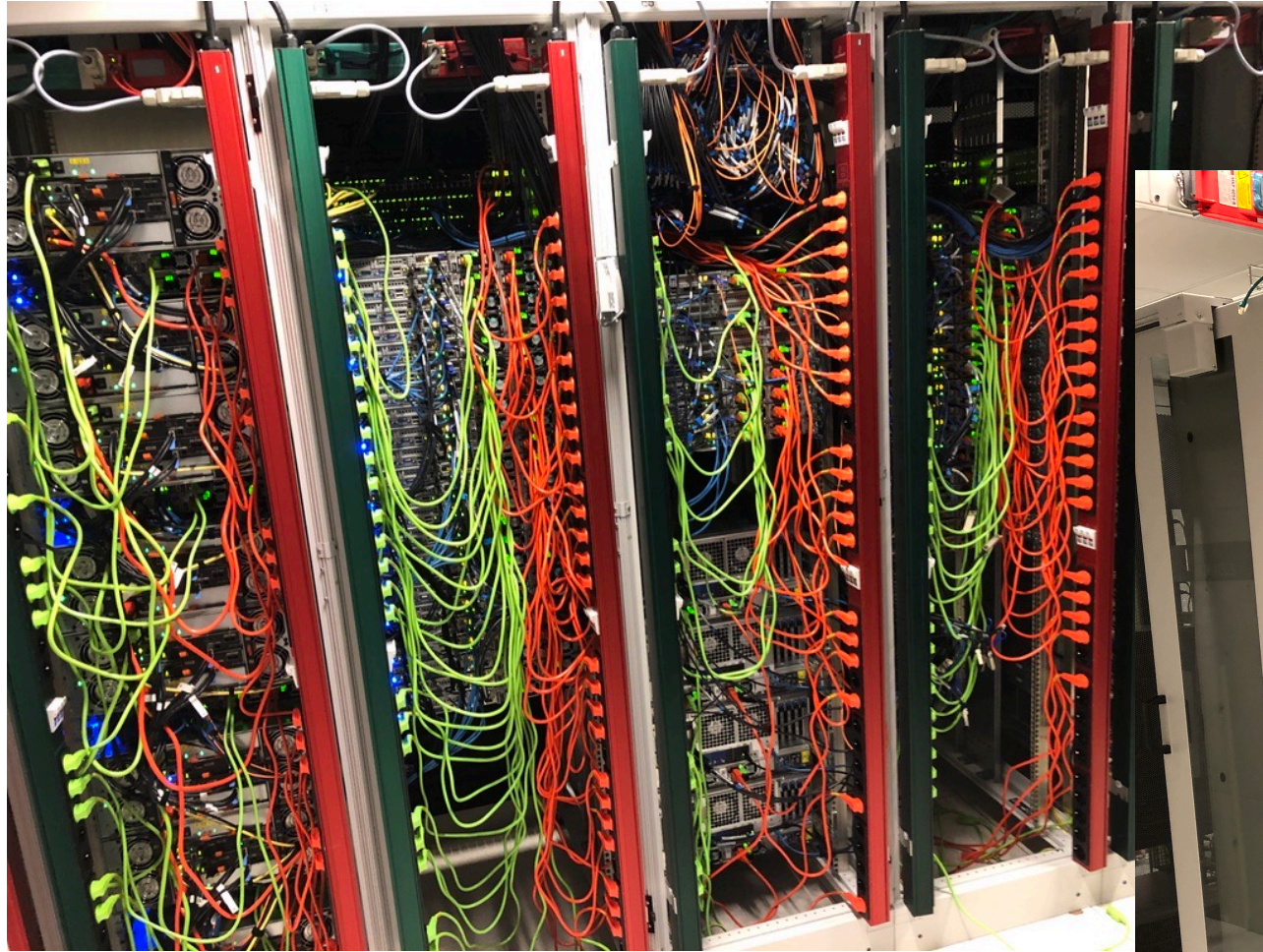


LOFAR 2.0





All systems needed to be removed



- We had 24 systems over 100kg.
- Some had not been moved since 2008



- New systems do not fit in the old racks

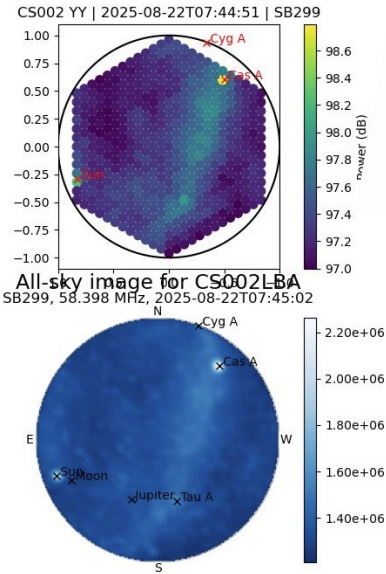
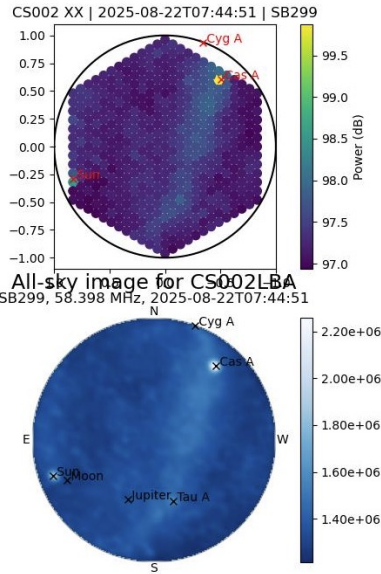


Automated verification test detects issues (such as swapped cables) and delivers a full report per station.

When all initial checks are done in advance, 3 stations can be verified in a single day.

5 Any other remarks

LBA 46 and LBA47 are swapped in position. This is already corrected in antenna database and also in ~~lofarantpos~~ database (done).
New station calibration is suggested for optimum use of LBA46 and LBA47.



2 Test Results

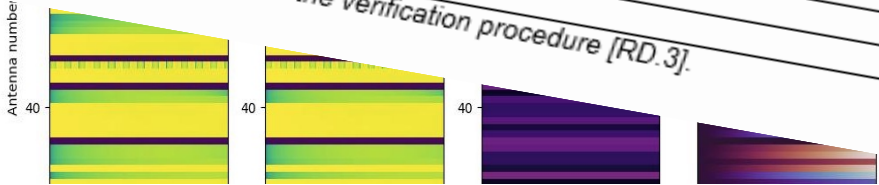
Station: CS002

Table 2: Compliance Summary of Verification Tests

Test Ref.*	Test Title*	Remarks (optional, e.g. conditional pass or fail condition)	Pass	Fail
2	Clock distribution system			
3	Power distribution system			
4	Configuration	APSCT PCB number H0 and L1 failed		
5	RCU Control			
6	Crosslet statistics (XSTs)	LBA46 and LBA47 swapped position (solved)		
7	Beamformer performance	DAB filter only Y pol HBA (fix in software)		
8	All sky imaging			

*Test reference and title as in the verification procedure [RD.3].

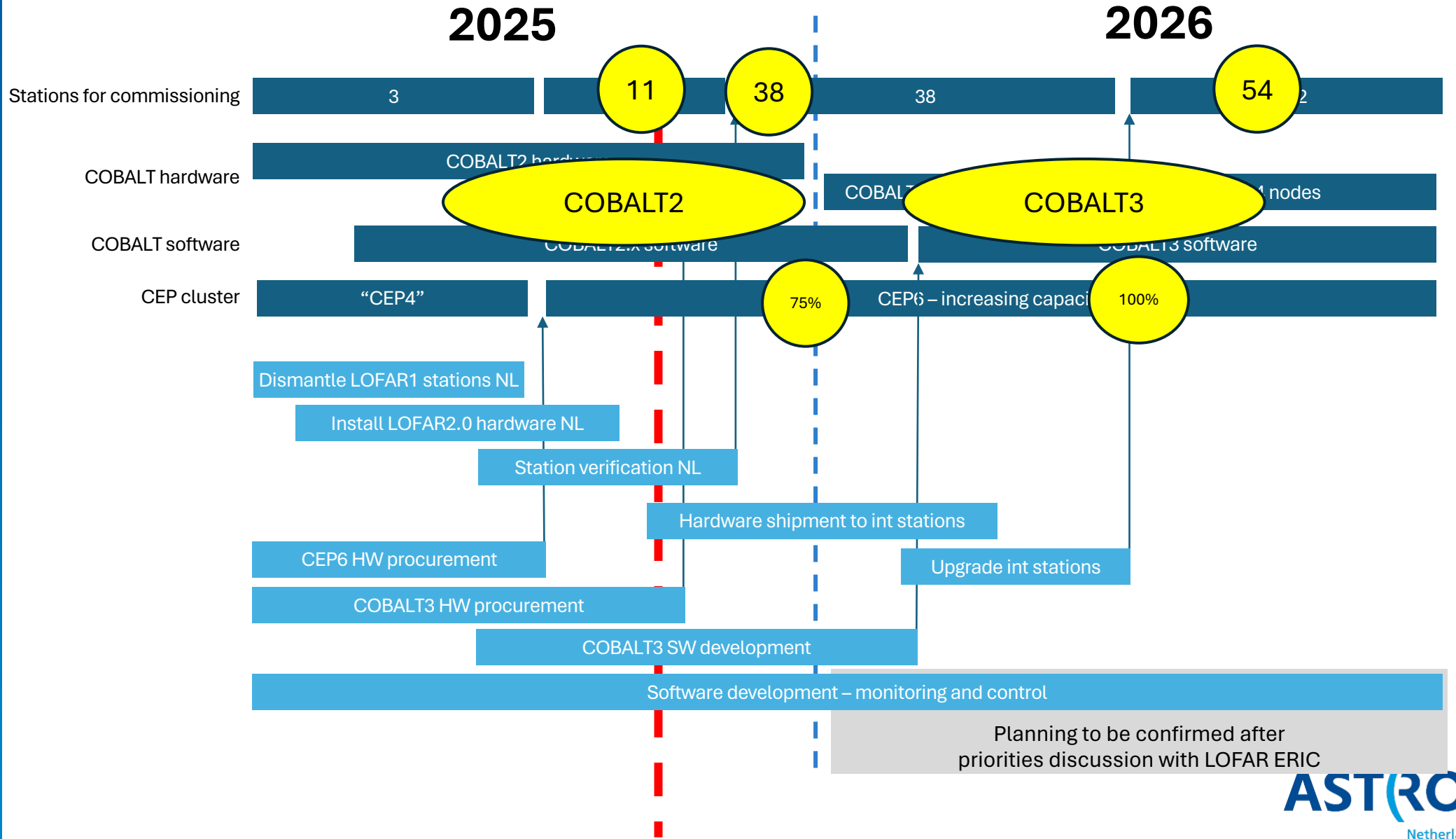
ALL TESTS PASSED



Chapter 2: test_2_3_6_check_APSCT_PCB_NUMBER

stat/apsc/h0: FAILED APSCT_PCB_NUMBER_R no match with APSC-202503-00056	stat/apsc/l0: PASSED	stat/apsc/l1: FAILED APSCT_PCB_NUMBER_R no match with APSC202503-00057
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LOFAR2.0 rollout overview



Observatory capabilities

End of 2025

- End-to-end operations
- Dutch stations only
- LBA **or** HBA observing
- BF mode for PST
- HBA-NL imaging
- Calibration
- HBA-NL pre-processing, LINC, Rapthor, PST
- Delivery of data products

2026 and beyond

(to be prioritized H2 2025)

- Dual LBA / dual HBA
- ILT mode
- LBA + HBA observing
- NenuFAR super station
- Simultaneous IM + BF
- Station stand alone
- Transient buffer

LOFAR2.0 delivery of observing modes

including pipelines!

LOFAR ERIC prioritization
pending

