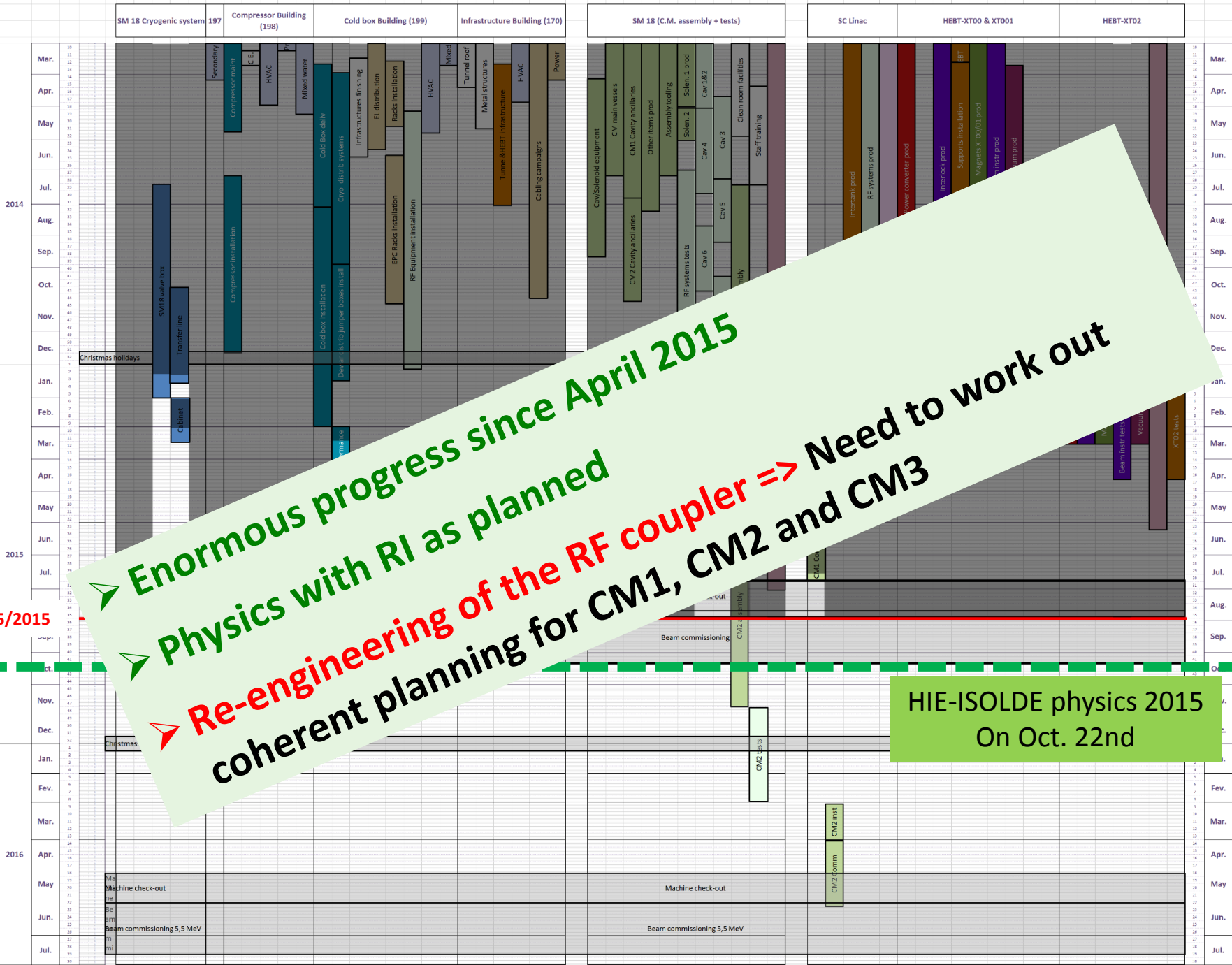




HIE-ISOLDE Project Status Report: Planning of Phase II

74th ISOLDE Collaboration Committee meeting
November 10th 2015

Y. Kadi



➤ Enormous progress since April 2015
 ➤ Physics with RI as planned
 ➤ Re-engineering of the RF coupler => Need to work out coherent planning for CM1, CM2 and CM3

HIE-ISOLDE physics 2015
On Oct. 22nd

WK10

WK35/2015

Machine check-out

Beam commissioning 5,5 MeV

Preparation for running w/ CM1 + CM2 (get new couplers, complete CM2, fix CM1)

Scenario 3: new type coupler proto fully qualified in wk51

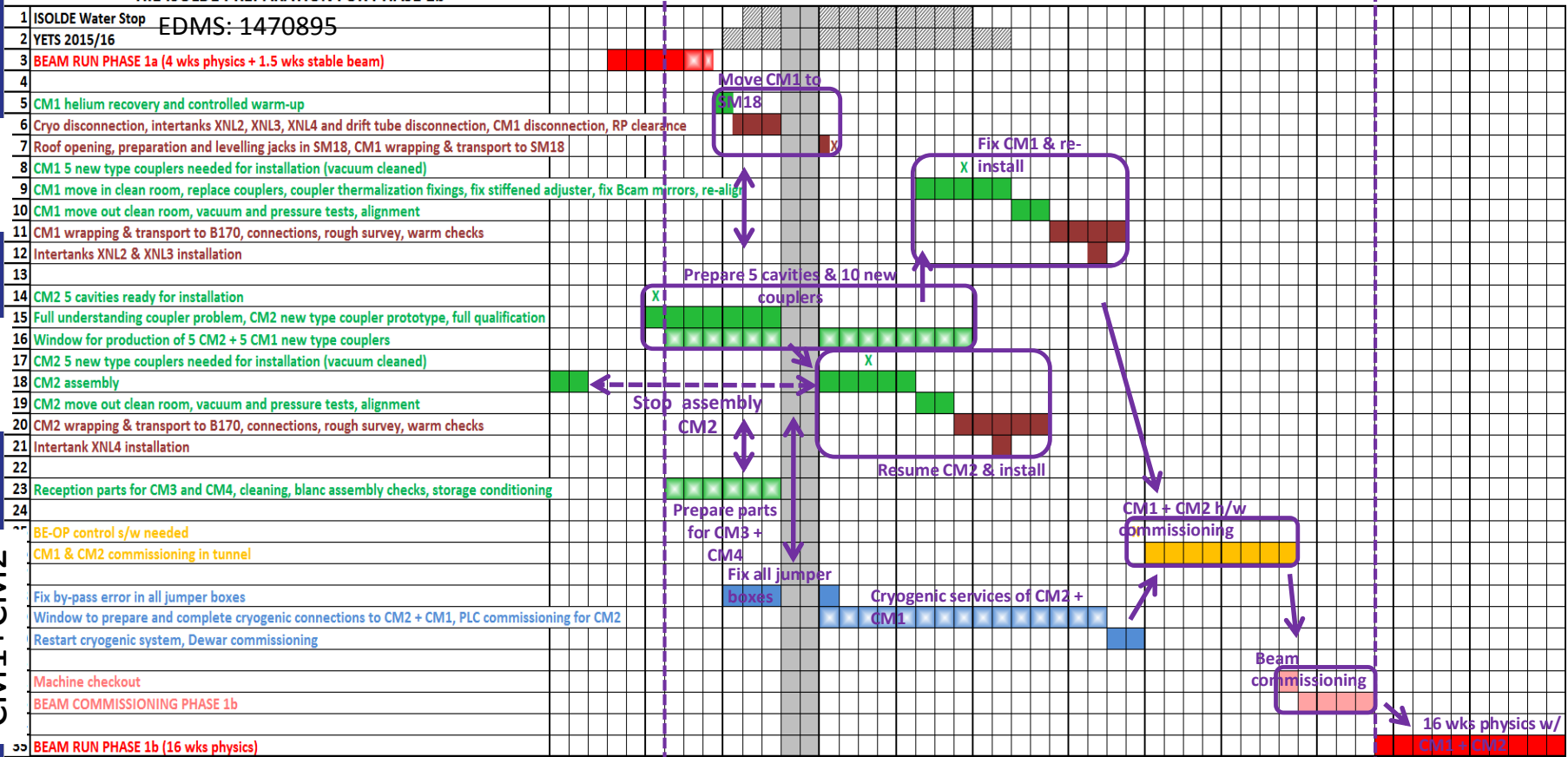
WEEKS	Oct-15	Nov-15	Dec-15	Jan-16	Feb-16	Mar-16	Apr-16	May-16	Jun-16	Jul-16	Aug-16	Sep-16																																									
	40	41	42	43	44	45	46	47	48	49	50	51	52	53	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39

HIE ISOLDE PREPARATION FOR PHASE 1b

CM1

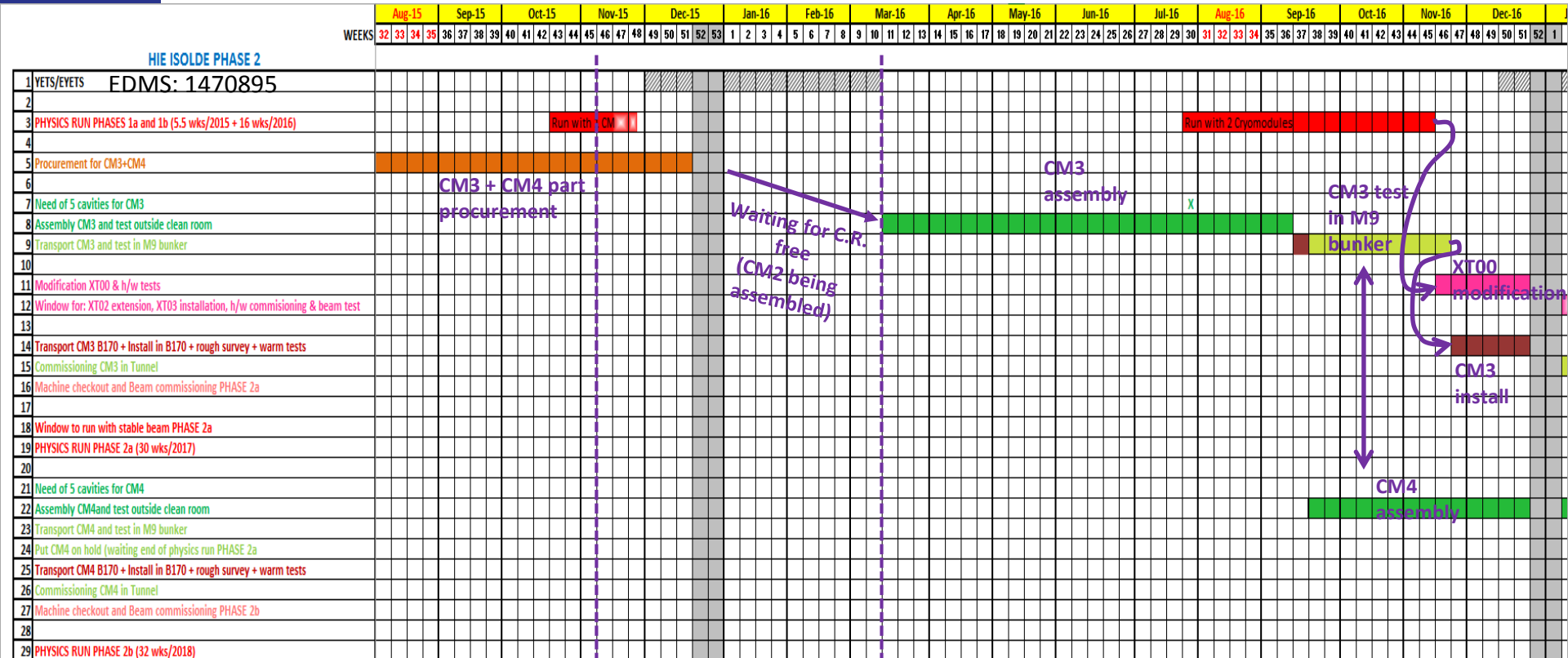
CM2

CM1+CM2



Today

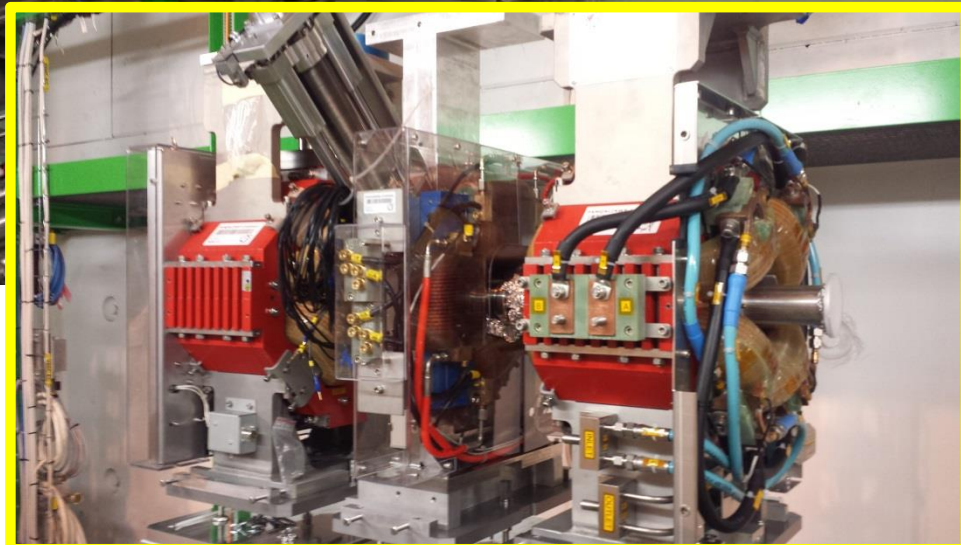
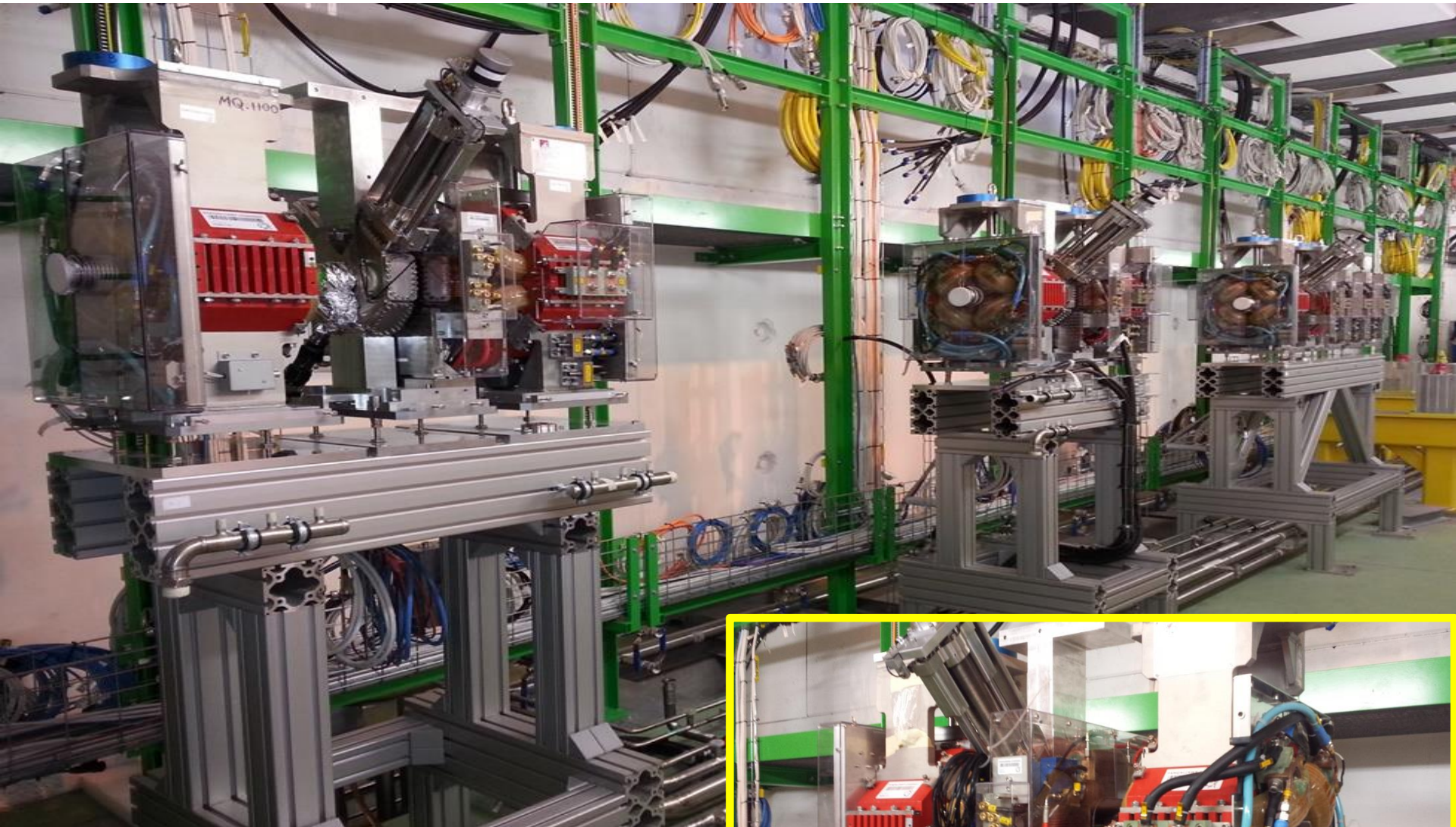
Forecast for HIE-ISOLDE Phase 2 (years 2015- 2016)



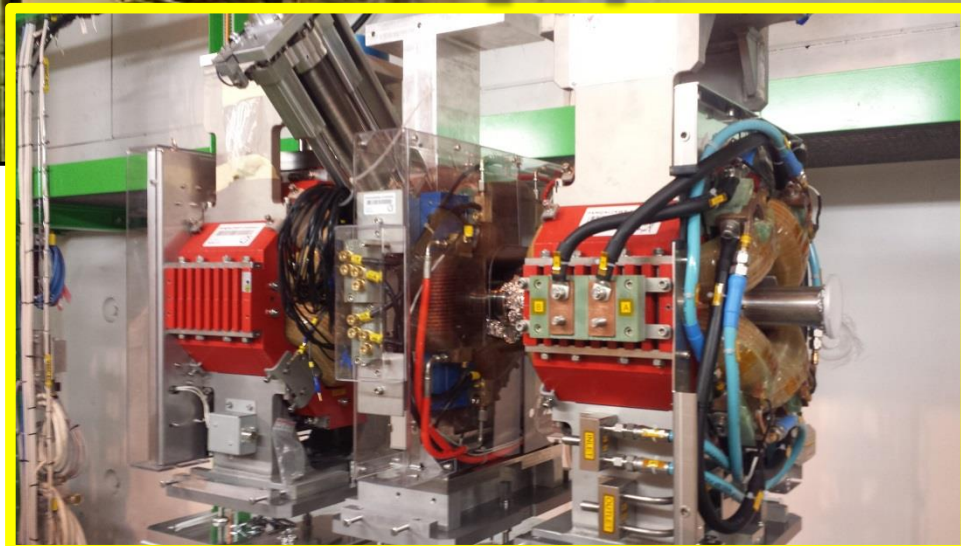
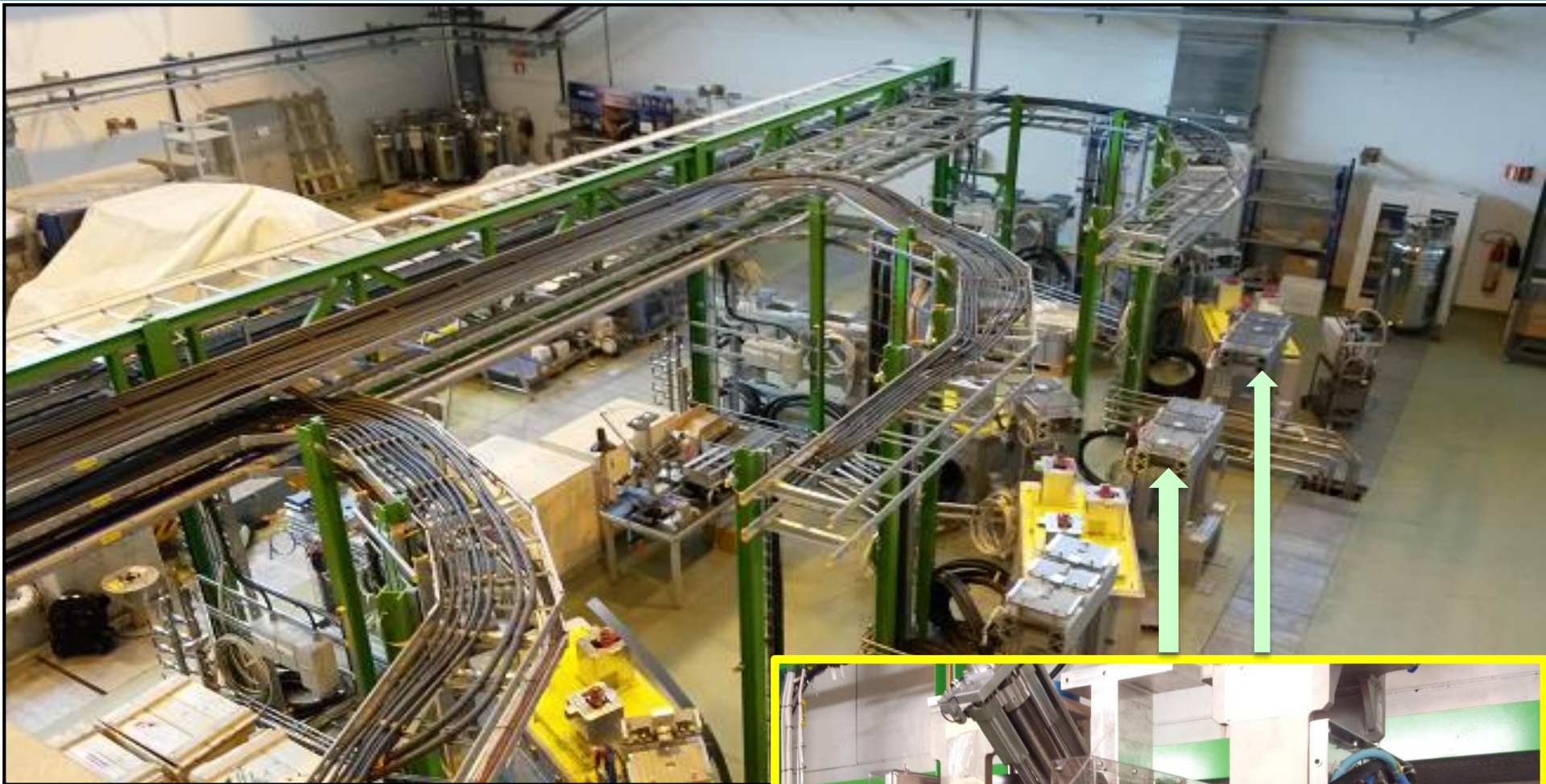
General remarks:

- ❖ Test in M9 bunker is now mandatory for CM3 and CM4 because the HIE-ISOLDE facility is running
- ❖ XT00 modification for PHASE 2: push forward the quadruplet and move 1 doublet to XT03

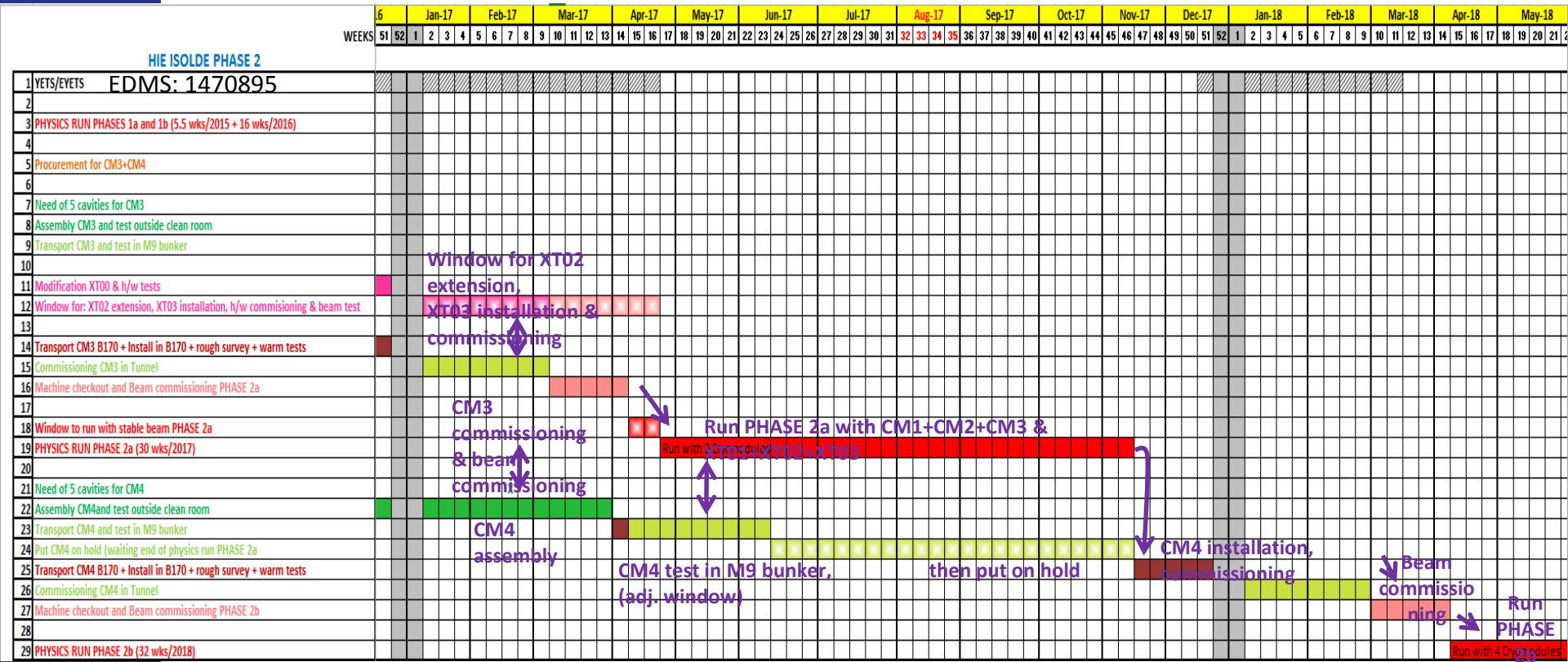
HEBT installation status (XT00 in Linac tunnel, B170)



HEBT installation status (XT00 / XT01 / XT02, B170)



Forecast for HIE-ISOLDE Phase 2 (years 2017- 2018)



General remarks:

- ❖ **NEW:** PHASE 2 run is split into PHASE 2a (2017) and PHASE 2b (2018)
- ❖ **NEW:** beam optics with 3 CMs: CM4 replaced by one doublet & replace first doublet XT03 with drift tube

Overall Summary

- Radioactive beam delivered to Miniball experiment on Oct. 22nd 2015 as initially planned.
- The results of the hardware tests highlighted that CM1 is not fully qualified for sustained operation (problem on RF couplers):
 - **De-install CM1 and re-work during winter shutdown;**
 - Re-engineer RF couplers;
 - Improve thermalisations of the RF power line.
- **New coherent planning is proposed for CM1, CM2 and CM3**
 - **Agree with Collaboration on a common scope for** Physics run 2 & 3 (2016-2017)
- **Procurement for the 3rd beam line and extension of XT02 for HELIOS has been launched:**
 - HELIOS solenoid magnet => TE/MSC & Isolde Coll.

Acknowledgments





Thank you for your attention

