

LS2 planning meeting

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CERN is in Level 4 - Red

- CERN's COVID scale determining conditions for on-site access, telework and other measures based on a 4 levels scale
- Transition between levels according to
 - the incidence rate in the local area (Geneva and neighbouring French departments),
 - but also takes vaccination, stratified testing, host state rules, new variants and CERN's qualitative assessment into account
- The level is defined on a weekly or bi-weekly basis.
- **CERN is in level 4 – Red as from Monday 10 January**
- Applicable to all ages categories i.e. no more difference for the 65+.

COVID-19 <https://hse.cern>
Coronavirus Information

CERN'S COVID-19 SCALE AND MEASURES

The COVID-19 level in place reflects the prevailing epidemiological situation, and determines corresponding measures across the Laboratory.

TRANSITION BETWEEN LEVELS

Determined via a combination of the incidence rate in the local area and a qualitative assessment by CERN.



	High	Medium	Low	Negligible
Weekly virus circulation in local area	Over 100 cases per 100 000	Over 10-25 cases per 100 000	Fewer than 10-25 cases per 100 000	
Qualitative assessment	Based on number of confirmed cases at CERN, presence of new variants, vaccination, stratified testing can			

Telework (TW) measures*				
	▶ Members of personnel (MP) who can telework should telework, though one day per week on-site is possible.	▶ MP who can telework should telework, though two days per week on-site are possible.	▶ Normal working conditions apply. Telework may be exceptionally requested by the Organization.	▶ Normal working conditions apply

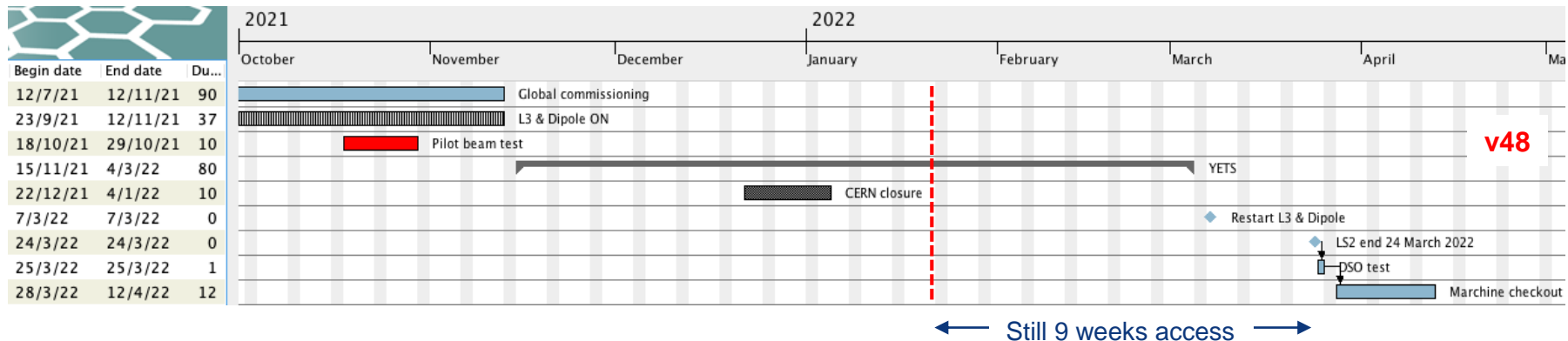
Access to CERN sites**				
	▶▶ MP and honorary members are authorised, only for professional reasons and in consultation with their supervisors	▶▶ Retirees can access on-site facilities, such as bank safe deposit boxes, the CHIS office or the pension fund, only if strictly necessary	▶▶ Relatives of CERN Members of Personnel are not authorised	▶▶ CERN club members are not authorised
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	▶▶ Standard Access	▶▶ Standard Access	▶▶ Standard Access	▶▶ Standard Access

Main changes in going to Red

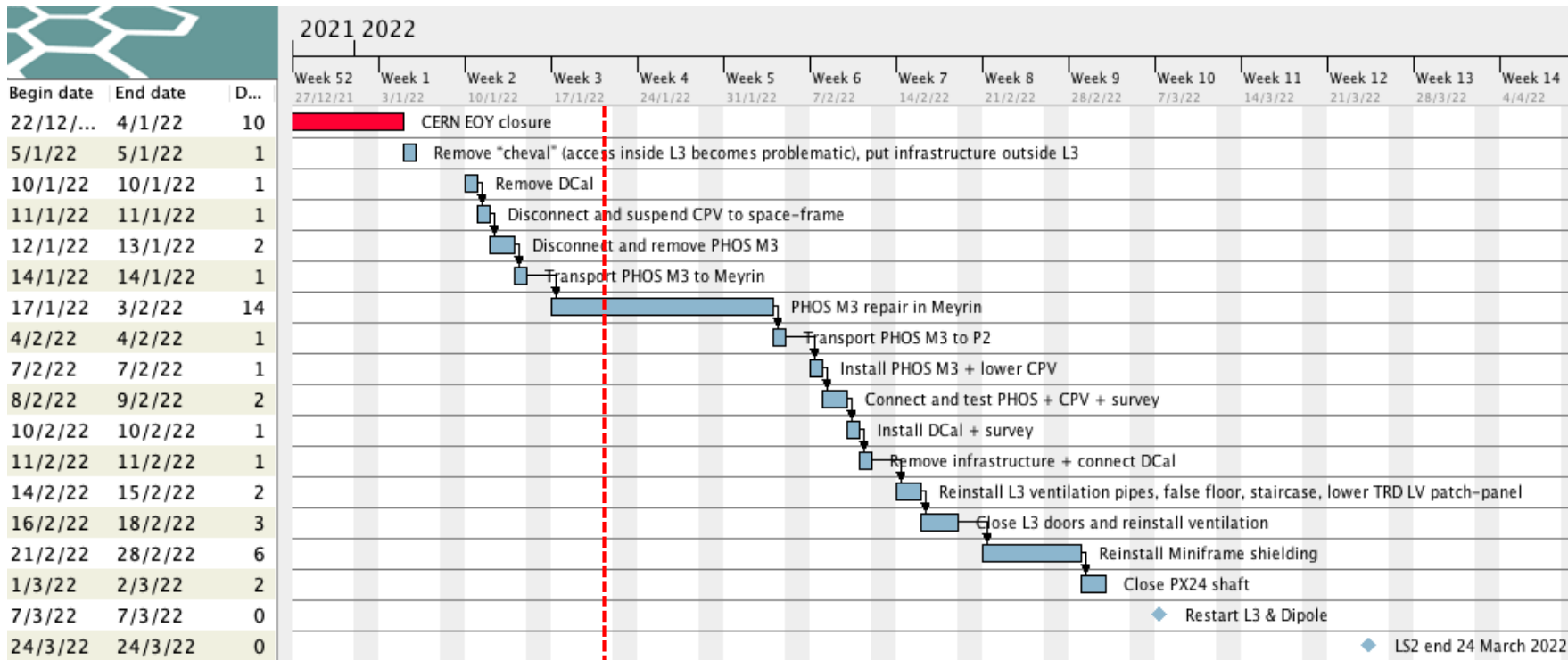
- **Main changes in going to RED as being:**
 - Access conditions: same as Orange
 - **Telework mandatory with access on-site possible one day per week**
 - Physical meetings: limited to 15 indoors and outdoors (50 in Orange)
 - Visits – see <https://hse.cern/content/access-cern-covid-19>

ALICE LS2 schedule

- **Global commissioning** until 12 November 2021
- **LHC pilot beam test** in weeks 42-43
- **YETS** started on 15 November 2021, right after the LHC pilot beam
- **Restart magnets in week 10 (March 7th)**, restart shifts in week 8 (MA) and week 9 (MAN)
- Underground access ends on **Thursday 24th March 2022 evening**. **DSO test on 25 March**, followed by 2 weeks machine checkout (punctual access possible). Machine commissioning with beam expected to start on April 13th.

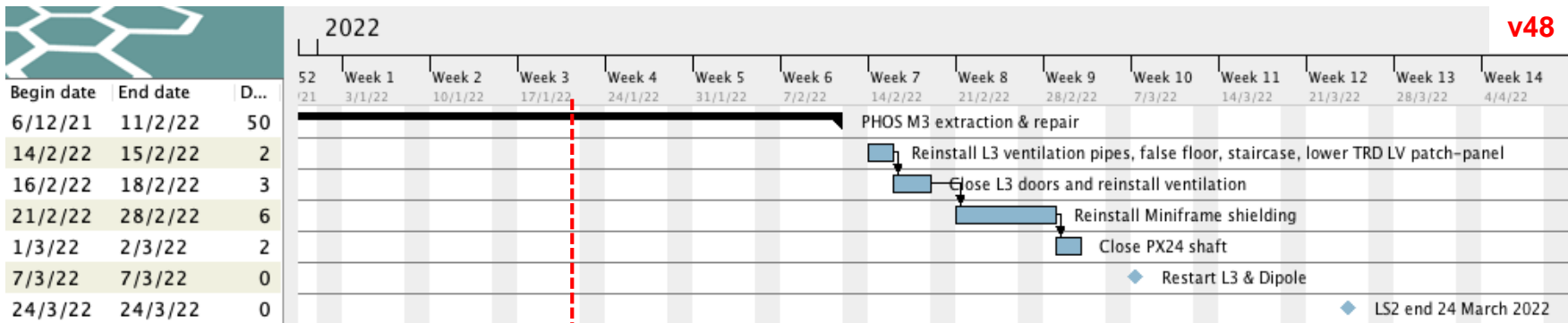
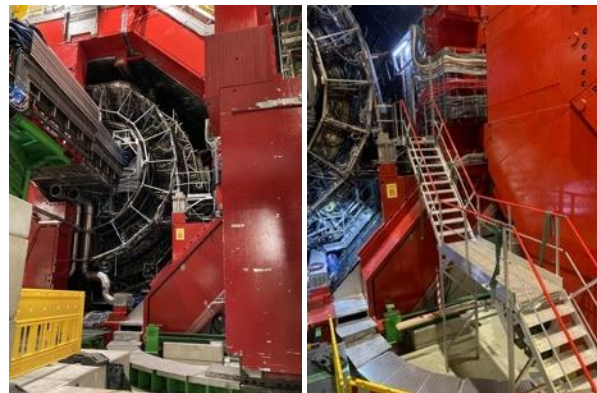


PHOS/DCal extraction schedule



L3 doors & shieldings

- L3 doors opened on 15-16 November
- Close **L3 doors**: 16-18 February 2022
- Close **Miniframe shielding** → 21-28 February → **various access perturbations UX25 cavern**
- Close **PX24 shaft** → 1-2 March → **various access perturbations UX25 cavern, CRs and Exhibition**



YETS activities – detectors

1/2

- **PHOS:**

- Module 3 transported to Meyrin last Friday, top cover removed and C6F14 leak localised in proximity of a bellow. One cannot touch or see this place directly because there is no gap between the crystal matrix and the sarcophagus lateral wall. The module was rotated yesterday and Lee opened a window in the 3mm module's lateral wall.
- Next update by Yuri today at 11:00

- **TOF:**

- Lock baby-frame rails 8 sectors done this week (Philippe + Cedric)
- Installation 21 DCDC, replace DRM69 measurement of the flow in SM8 (flowmeter + fittings EN-CV) + measurement P of the different loops → start next week (2 people, on Monday, than 4 people from Tuesday)

- **TRD:**

- Remove gas backup system (access in baby-frame) → will start next week (check access with TOF). Access platform for the baby-frame to be looked at next week with Philippe and Cedric

- **TPC:**

- Leak fixed last week
- CR4 doors installed this week (Philippe + Cedric)
- Noise investigation on the C-side → additional tests to be done
- Replacement 4 faulty FEC on the A-side → 2 FEC replaced this week. Activity will continue for the 2 next weeks
- Laser alignment: 1-3 February

- **EMCal/DCal:**

- Replacing/fixing few FECs and TRUs on EMCAL and DCAL → ongoing, will continue next week (or the week after, depending on the access conditions)

- **HMPID:**

- Inspection liquid system inside L3 towards beginning of February (Cosimo, Mimmo)

- **MFT:**

- Replace filters cooling plant next Monday (Philippe + Cedric)

- **MCH:**

- LV checks after backplane modification still ongoing. One damaged cable found on CH8R, two additional LV faults on CH1 and CH7 still under investigation
- ST1 readout commissioning completed this week, only marginal errors on few DS boards remaining
- Work on readout tests and noise suppression on ST45 to be continued next week

PHOS M3 leak investigation



PHOS M3 leak investigation

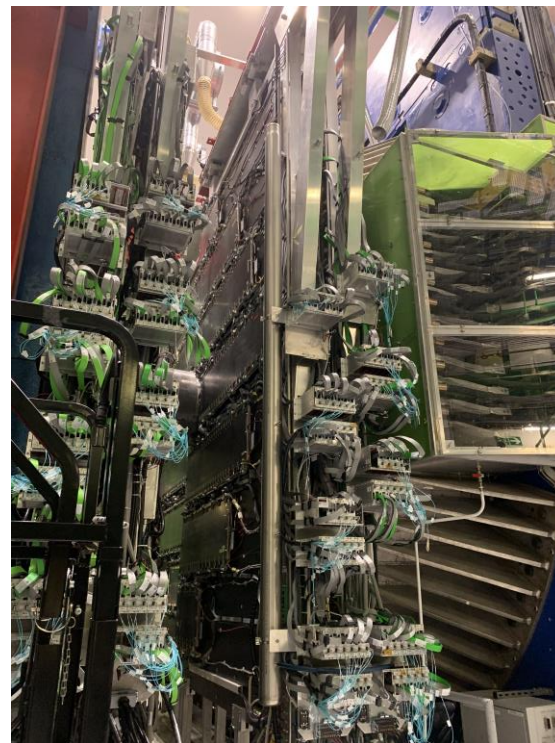
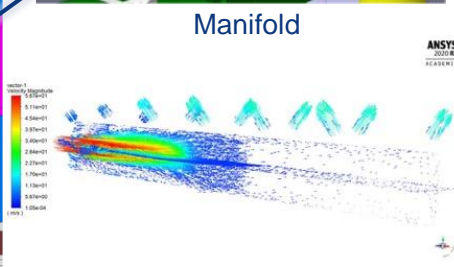
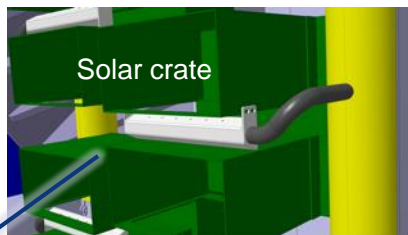
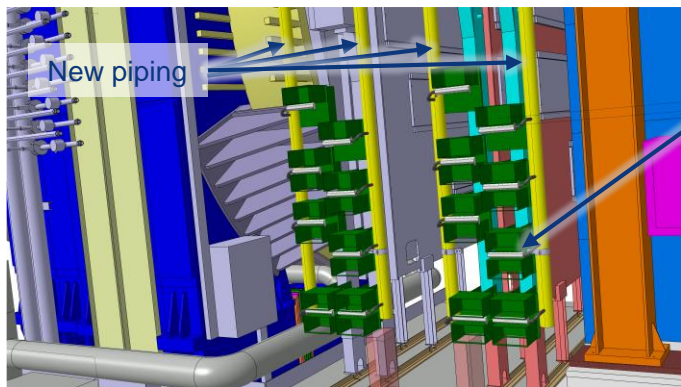


PHOS M1 (photo 2013)



MCH VTRx ventilation

- Implementation of a **new air cooling system** aiming at cooling down the MCH VTRx to 32C
- **Piping** will restart next Tuesday, completion by 8-10 February (Sades)
- **Manifolds** → see next slide
- **All HW installed by mid February**



MCH VTRx ventilation – manifold production



New version 3D printed to reduce cost and manufacturing for qt. 64: from 22kCHF-60 days to 7kCHF-10 days



Prototype verified with his support to the crate and with the inlet pipe → small modifications (v9)



Prototype tested at P2 to check the flow distribution: **4 new prototypes** with the final resin ACCURA25 to be done at CERN and tested in the MCH ventilation system next week; full production (64 pieces) launched afterwards, expected **delivery by mid February**.



EN-CV: detector cooling maintenance

- **TRD:**
 - Replacement of the pump + maintenance, replacement of the 2 TA valves of the loop 20 → done this week
 - Replacement of the electrical cubicle (under reserve of material reception + control team availability) → next YETS
- **ITS:** replace main pump and install manual valves on return lines
 - Installation of the stronger flow pumps + connection to the chilled water: 3-4 February
 - Installation of the valves in the crate return lines: 7 February
 - Installation of the valves in the detector return lines: 7-8 March
 - Finalisation of the tuning of the valves: 9-11 March

YETS activities: other groups

- TE-VSC: alignment of the central beampipe next Tuesday, January 25th
- BE-GM (survey): survey central beampipe after the alignment on Tuesday 25 January
- Maintenance LED lights UP25 door (Marimils) → 7-8 February
- EN-EL: maintenance SU2 electrical switchboards → 22 Feb to 25 Feb 2022 (date tbc) will stop CR air cooling for 1 day
- EP-DT + BE-EA: pull P sensor cable from MID detector to gas distribution rack (C-area) → to be organised in January
- EP-DT: install new MID rack in CR5
- Rinse and clean L3 cooling tank 20'000l (Philippe/Cedric): **done**
- Clean filters L3 cooling system (Philippe/Cedric): next week
- EN-ACE: modify CR5 fences in week 10

Primary gas cost increase – follow up from BE-EA

- The price of R134a is x2.13 higher than last year (instead of 2.5 – 5):
 - Price 2022: 6'547 CHF/405kg, will be revised in March 2022 (tbc)
- The 2nd Chinese source is operational again (more product available):
 - Our supplier will receive ISO container from CHINA by end of January, so seem **no risk of shortage** for the coming weeks/months
- For the other gas references:
 - The “potential” cost increase of ~ 7% is currently limited to a factor 1.02.
 - Excepted for some rare and refrigerant gases.

Summary access restrictions until end of LS2

- **From Thursday 30/9 18:00 to Monday 4/10 9:30:** transfer line test (TI2) – no access UX25
- **From Thursday 7/10 17:00 to Monday 11/10 9:30:** transfer line test (TI2) – no access UX25
- **From Monday 1/11 8:30 to Wednesday 3/11 17:00:** opening PX24 shaft — no access UX25, CRs and Exhibition
- **Weeks 42-43:** LHC pilot beam test – no access UX25; CRs access with dosimeter (supervised radiation area)
- **Wednesday 24/11:** AUG test – no access whole P2 site (both underground and surface)
- **21-28 February 2022:** close miniframe shielding – various access perturbations UX25 cavern
- **1-2 March 2022:** close PX24 shaft – various access perturbations UX25 cavern, CRs and Exhibition