

# East Area Renovation Project Project Team meeting #37

*News*

*S. Evrard, Project Leader,*

*EN-EA 03 July 2020*



ENGINEERING  
DEPARTMENT



**EAST AREA RENOVATION**



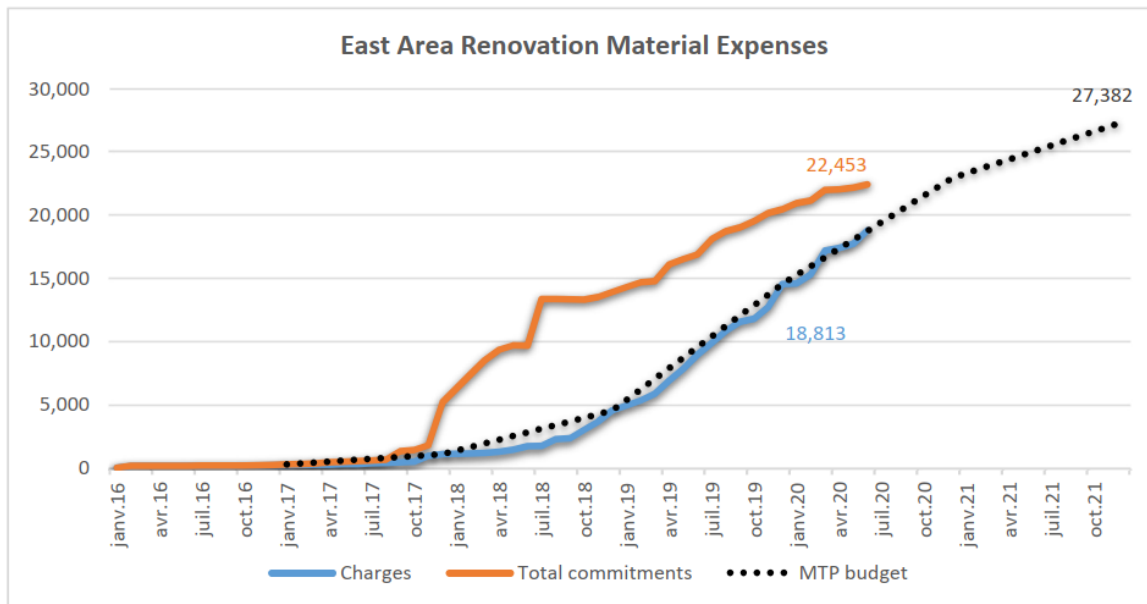
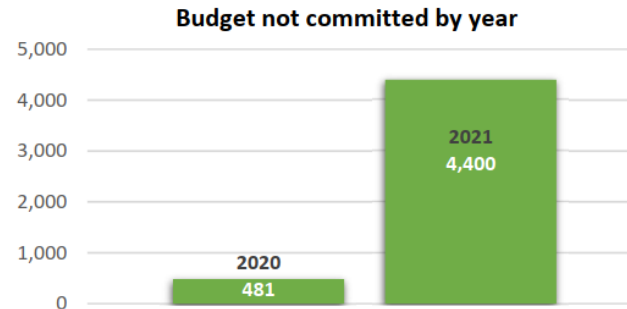
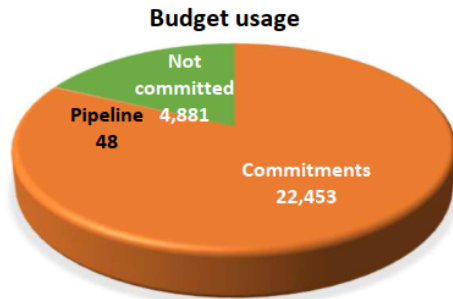
# Agenda

- Budget
- Schedule
  - LS2C on June 12th
- News:
  - PS CSAP on June 4th
  - Cloud area modifications
  - Ground loads: survey results
  - Individual system tests

# Budget situation as of July 1st, 2020

Material Budget

in kCHF 27,382



- Medium Term Plan to be approved in September' 20
- Includes Additional request of 1,4 MCHF to cover unfunded activities
- Material CtC: 26 → 27.4 MCHF
- Committed: 82 %
- Charged: 69 %
- No actual effect of COVID up to now

# LS2C on June 12th

## East Area

© J. Bernhard, S. Evrard, M. Lazzaroni, B. Rae

- Several critical path activities throughout 2020/21
- Initial focus on compatibility with PS closure -> **at risk / still ok with increased co-activities** (dedicated VIC with CV/EL/SMM and HSE)
- **Very dense planning throughout 2020/21** (details see backup slides)
- Early activities (**many started/on-going**), several on critical path
  - F61/352: magnet installation, cabling, vacuum
  - b251: power converters (EPC), CV, cabling
  - b157: CV
- **limited co-activities** currently drive late date for physics (**affecting CLOUD, urgent test-beam requests and IRRAD/CHARM**)
- T8 stand-alone options studied, but only minor gain possible
  - **early operation possible throughout 2021 beam commissioning period**
- **CLOUD** agree to run with and w/o beam (**SMM strong support**)

LS2C Approval  
(groups ok)  
tight critical path

Determines  
2021 Operation  
August - October

2021 Physics:  
October 17<sup>th</sup>



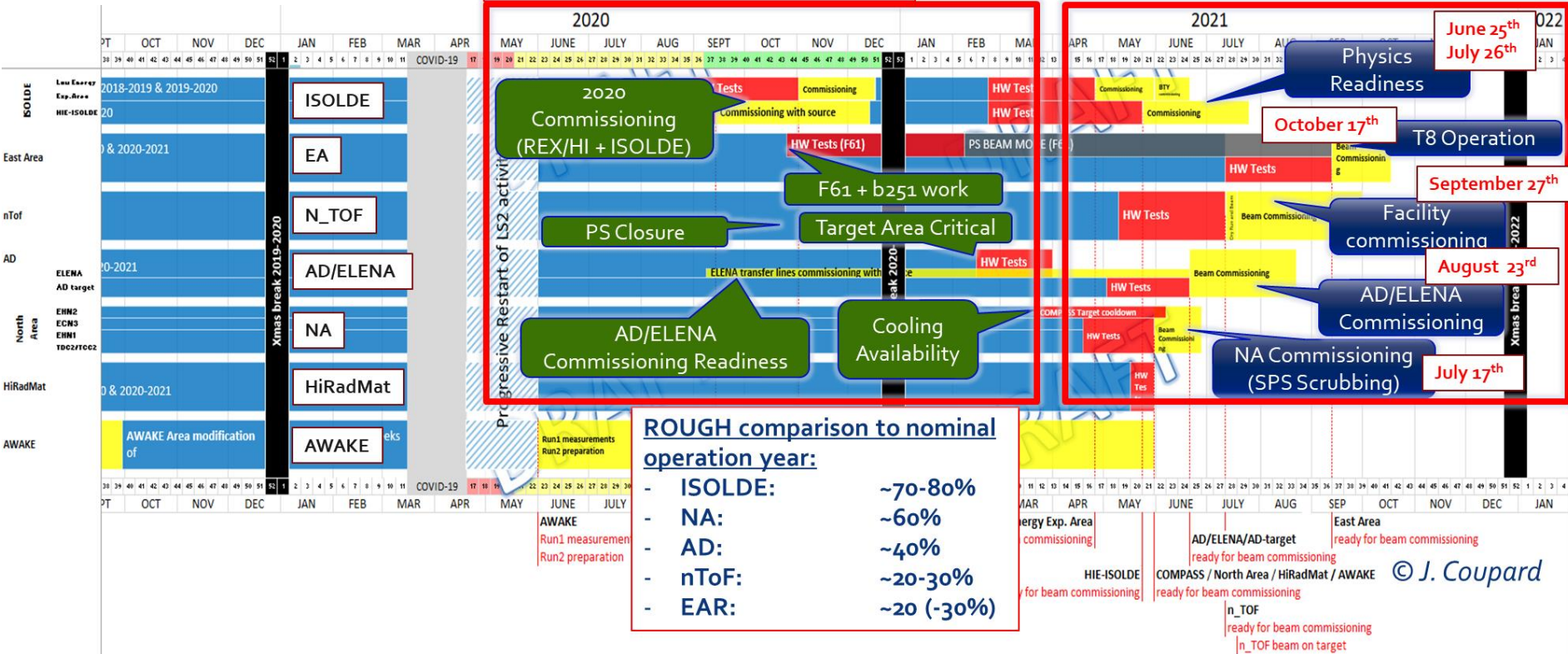
June 12th 2020

LS2 Day: Non-LHC Experiments & Facilities

- Green light for activities agreed upon with equipment and service groups, including further schedule optimizations
- Co-activity options shall be investigated in order to allow for executing work in a safe way and further optimize the remaining LS2 critical path activities

# LS2C on June 12th

## Important Schedule Constraints



# PS CSAP on June 4th

## Follow-up on the maximum ground load issue

- Load charge on different areas, floors, gradin and over galleries → RP shielding clearly is the design driver.
- Shielding configuration has been optimized according to RP recommendations.
- Slab condition had been analysed by coring and worst conditions scenarios identified.
- **As conclusion, some property risk remains still HSE will give a safety authorization for this specific shielding configuration with mitigation measures applied**

## Descriptive Safety file of the East Area

- Detailed layout of the hall and evacuation paths (with distances) from the different areas.
- Some particular chapters: Gas systems, Radiation aspects, PPS, Emergency systems with links to related documents.
- CSAP members to review and comment the document on EDMS.
- **The next steps will be to update the safety file of the satellite buildings (b. 251, b. 352, b. 817) as well as issue the demonstrative and the operational part of the Safety file.**

# Cloud area modifications

## Removal tasks:

- All done, except 'skewed' sections of the CLOUD platform (item 4) which is planned for 9-10 July (VIC was held 2 July).

## Installation tasks:

- T11 area walls installed (big thanks for Aboubakr and the crane team!). This is a really useful step forward.
- Painting of the T11 floor and walls planned for the week of 13 July.

## One additional task that had not been foreseen, and requires actions now:

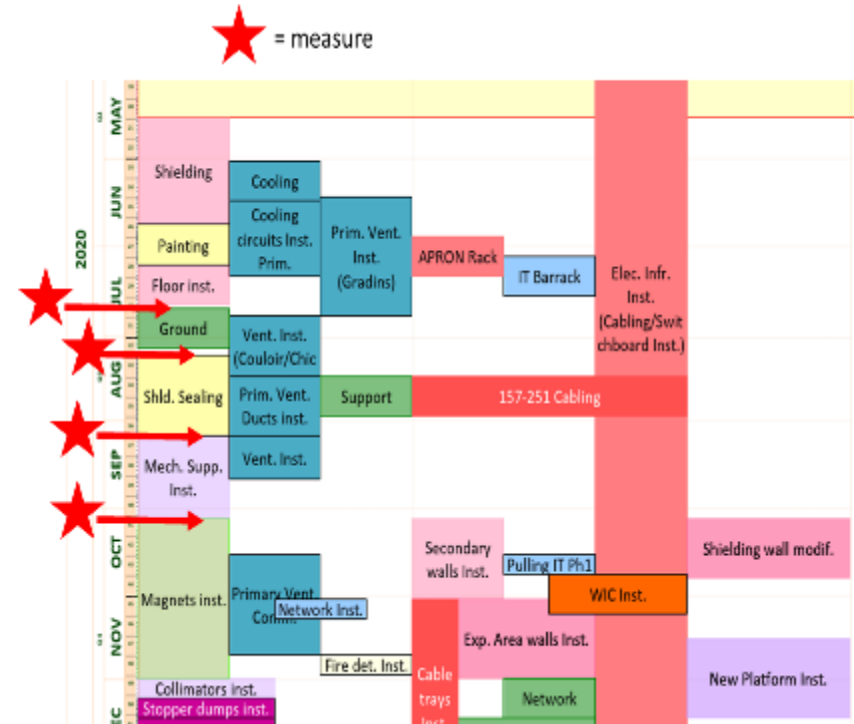
- Following a RP recommendation, a moving beam-shutter is to be designed to allow blocking the big entry hole to T11 when the beam is not used. Inputs from the T11 beam-geometry are expected (work on-going) to allow the mechanical design of that area of the T11 walls.



Courtesy of A. Onnela

# Ground loads: survey results

- The points are placed following the EDMS drawing 2373017. 3
- Additional points were installed on the ground of building 157 and 4 additional points (2 on the ceiling and 2 on the floor) were installed in the gallery.
- It was possible to compare the old installed points one month after their installation. A difference of 0.2 mm was found but a further analysis is needed since the value is really close to the error of the measure.
- Regarding the planning of monitoring the points 2 strategies will be applied:
  - There will be a systematic measurement done at the end of every month to monitor the possible ground deformation (even if no additional weight is installed)
  - In some particular cases a specific measure will be asked in accordance with a significant event of weight installation (shielding roof, magnets installation, ...)



Courtesy of G. Romagnoli



# Individual system tests

- IST by workpackages (Cf. EARP WBS) : <https://edms.cern.ch/document/1730966>)
- Prerequisite = What is needed before doing the tests?
- Needs = What is needed during the tests?
- Tests = What does the tests consist in?
- Template document prepared by Filipa
- IST preparation meetings to start soon.
- **Focus on B.352, highest priority**

# Next Project team meetings

- Meeting #38 on August 28th
- Meeting #39 on October 2nd
- Meeting #40 on November 13rd
- Meeting #41 on December 11th



# EAST AREA RENOVATION

**Thank you !**



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