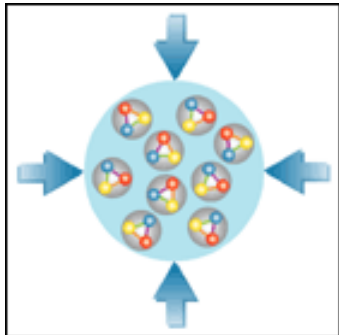


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# Status of the CBM Experiment

## – Key Dates for CBM Magnet

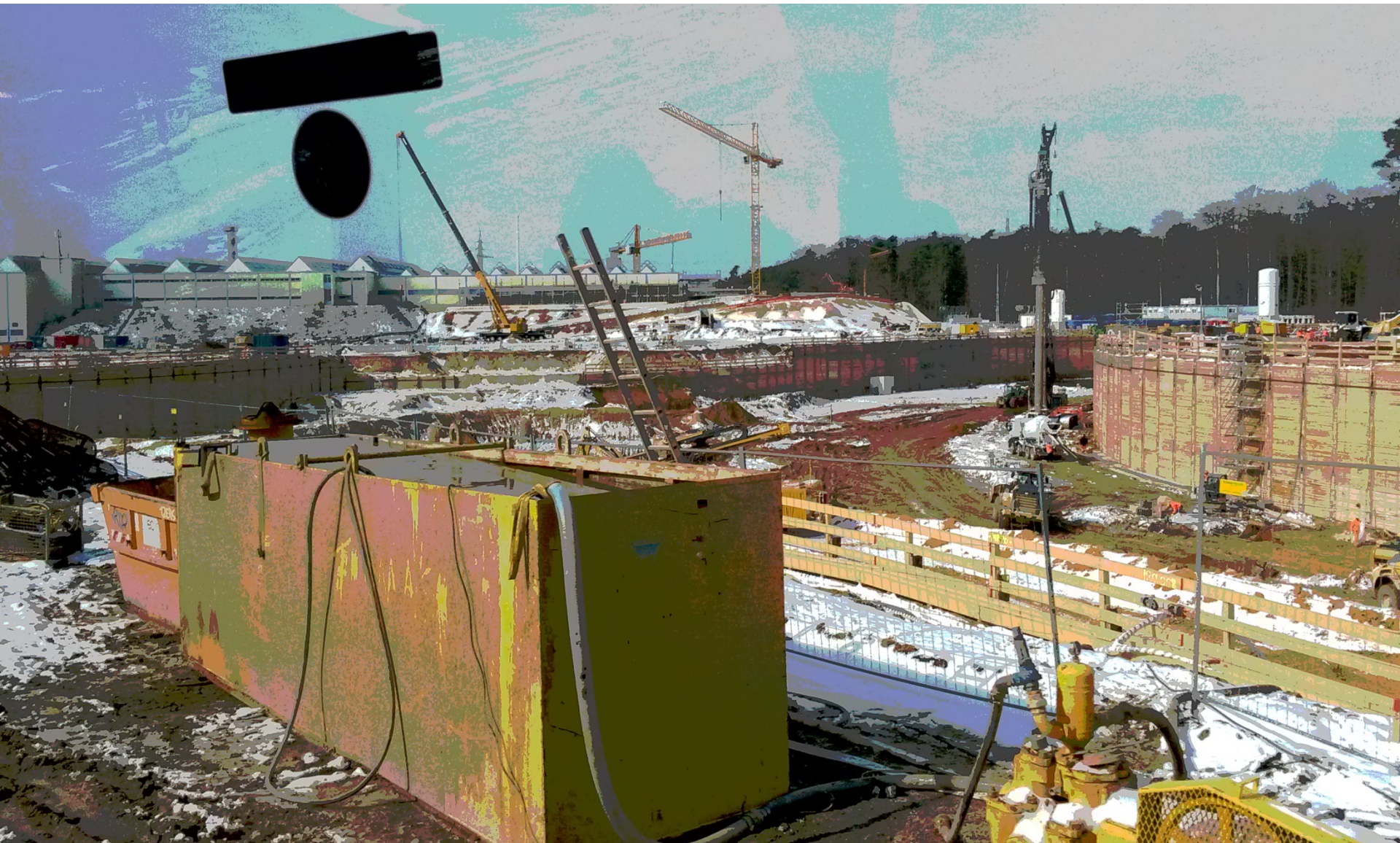
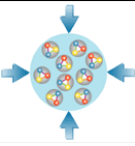
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Walter F.J. Müller, FAIR, Darmstadt

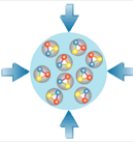
CBM Magnet CDR Round 2, GSI  
24-25 April 2018

# FAIR Construction on Track



picture taken March 19<sup>th</sup>, 2018

# Major External Milestones for CBM



## ■ G014 (CBM building)

- shell completed Dec '20
- installation window Dec '21 to Mar '22
- transition to 'user mode' Dec '22

### Notes:

- during 'installation window' building is still in 'construction site' mode
- only very basic ventilation and power services available
- mainly useful for bringing in robust mechanical structures

## ■ Cryogenics and Accelerator

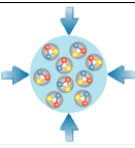
- Cryogenics ready in G014 Mar '23
- SIS-100 ready for beam Jun '24
- HEBT ready for beam Aug '24
- SIS-100 pilot beam Nov '24
- SIS-100 '1 user, low intensity' Feb' 25

Cryo plant still on commissioning

Depending on whom one asks first opportunistic test beam (few hours parasitic to SIS-100 commissioning) might start between Jul and Nov '24.

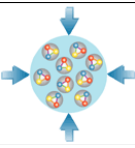
**Go for CBM M11 Mar'24**

# Installation Options for Magnet



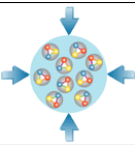
- Use installation window
  - install magnet in Dec'21 to Mar'22 window
    - Note 1: window will most likely be longer !
    - Note 2: only basic construction site services available
    - Note 3: other installation work in parallel (e.g mounting structs)
  - do bring-up starting when Cryo is ready, earliest Mar'23
- After building acceptance
  - install magnet starting Dec'22
    - Note 1: now full services available, except Cryo
    - Note 2: many parties in the cave !
  - bring-up when Cryo is ready, earliest Mar'23

# Time required for commissioning



- Many other activities depend on the milestone  
Magnet ready for operation [M11]  
the most notable ones are
  - magnet upstream remap with MUCH absorber
  - installation STS in magnet
  - commissioning STS
  
- It is essential to understand the time required for
  - cold-commissioning
  - quench testing
  - etc.

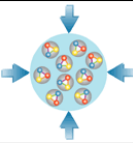
The End



Thanks for  
your attention

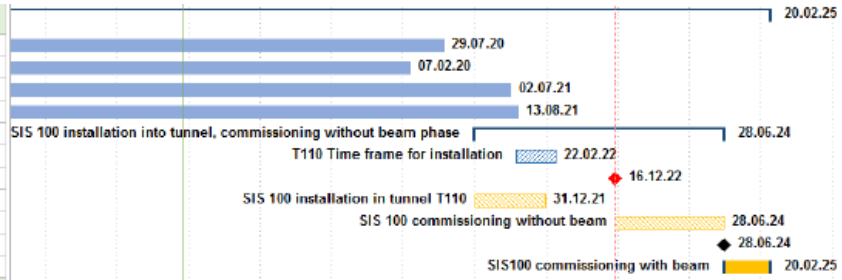


# FAIR Schedule: SIS100 and CBM

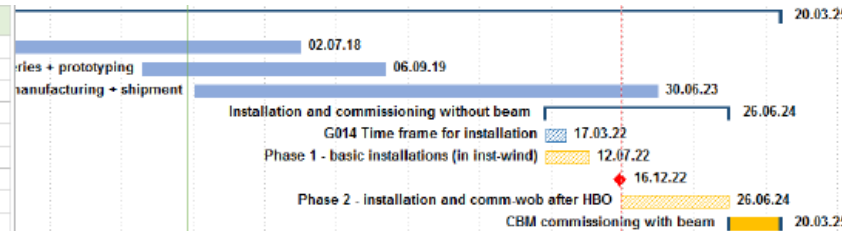


Slide shown on Spring 17 CBM Week in plenary on 23<sup>rd</sup> March 2017

SIS100		174,17 mons	17.10.2011	20.02.2025
120	SIS 100 planning phase	114,6 mons	17.10.2011	29.07.2020
121	SIS 100 manufacturing of pre-series phase	99,25 mons	02.07.2012	07.02.2020
122	SIS 100 manufacturing of series phase	97,2 mons	21.01.2014	02.07.2021
123	SIS 100 shipment, SAT A phase	101,1 mons	14.11.2013	13.08.2021
124	SIS 100 installation into tunnel, commissioning without beam phase	45,6 mons	31.12.2020	28.06.2024
125	T110 Time frame for installation	6,75 mons	29.07.2021	22.02.2022
126	Acceptance by HBO	0 mons	16.12.2022	16.12.2022
127	SIS 100 installation in tunnel T110	13,06 mons	31.12.2020	31.12.2021
128	SIS 100 commissioning without beam	20 mons	19.12.2022	28.06.2024
129	SIS 100 ready for beam	0 mons	28.06.2024	28.06.2024
130	SIS100 commissioning with beam	8,42 mons	28.06.2024	20.02.2025



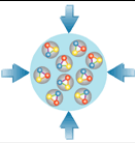
CBM		152,67 mons	08.07.2013	20.03.2025
233	Phase 2: design and planning	65 mons	08.07.2013	02.07.2018
234	Phase 4: pre-series + prototyping	44,5 mons	11.04.2016	06.09.2019
235	Phase 5+6: manufacturing + shipment	84,6 mons	05.01.2017	30.06.2023
236	Installation and commissioning without beam	33,55 mons	01.12.2021	26.06.2024
237	G014 Time frame for installation	3,1 mons	02.12.2021	17.03.2022
238	Phase 1 - basic installations (in inst-wind)	160 dys	01.12.2021	12.07.2022
239	Acceptance by HBO	0 mons	16.12.2022	16.12.2022
240	Phase 2 - installation and comm-wob after HBO	398 dys	19.12.2022	26.06.2024
241	CBM commissioning with beam	9,52 mons	26.06.2024	20.03.2025



## ■ The CBM bottom line:

- Dec 2021 to Jul 2022      1<sup>st</sup> installation window
- Dec 2022                      Building acceptance
- Dec 2022 to Jun 2024      Installation & commissioning w/o beam
- Jun 2024 to Mar 2025      **Commissioning beam** from SIS100

→ **Schedule Quite Stable**



# Backup Slides