

FAIR Control Center & Operational Models

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CERN-GSI Collaboration Steering Board Meeting - 26 Apr 2024

- Early Science – Overview & integrated Timeline
- FAIR Control Center
- Main Topics on the Way to first Beam
- Commissioning Workshop

Scope: FAIR Early – Science (ES)

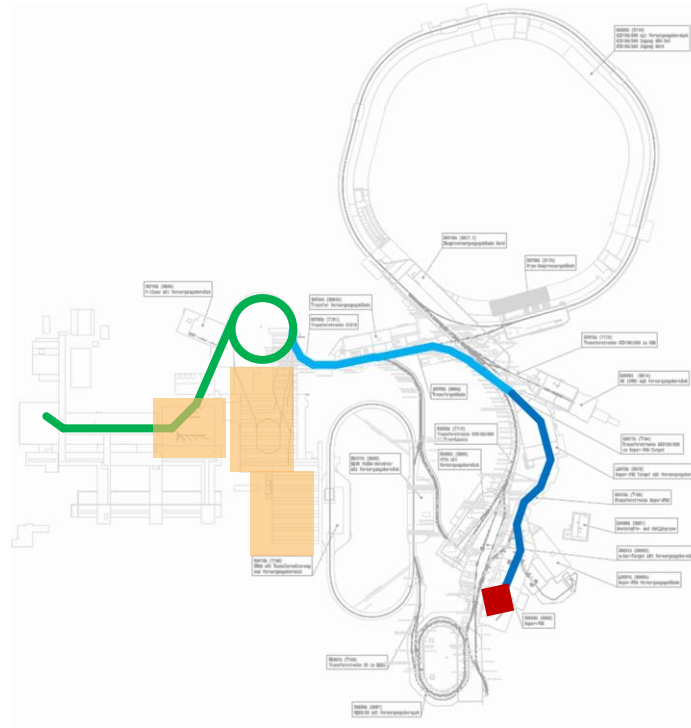
GSI Injector

- high current source
- high current injector
- UNILAC
- SIS18
- GSI HEBT

HEBT (ES)

SFRS

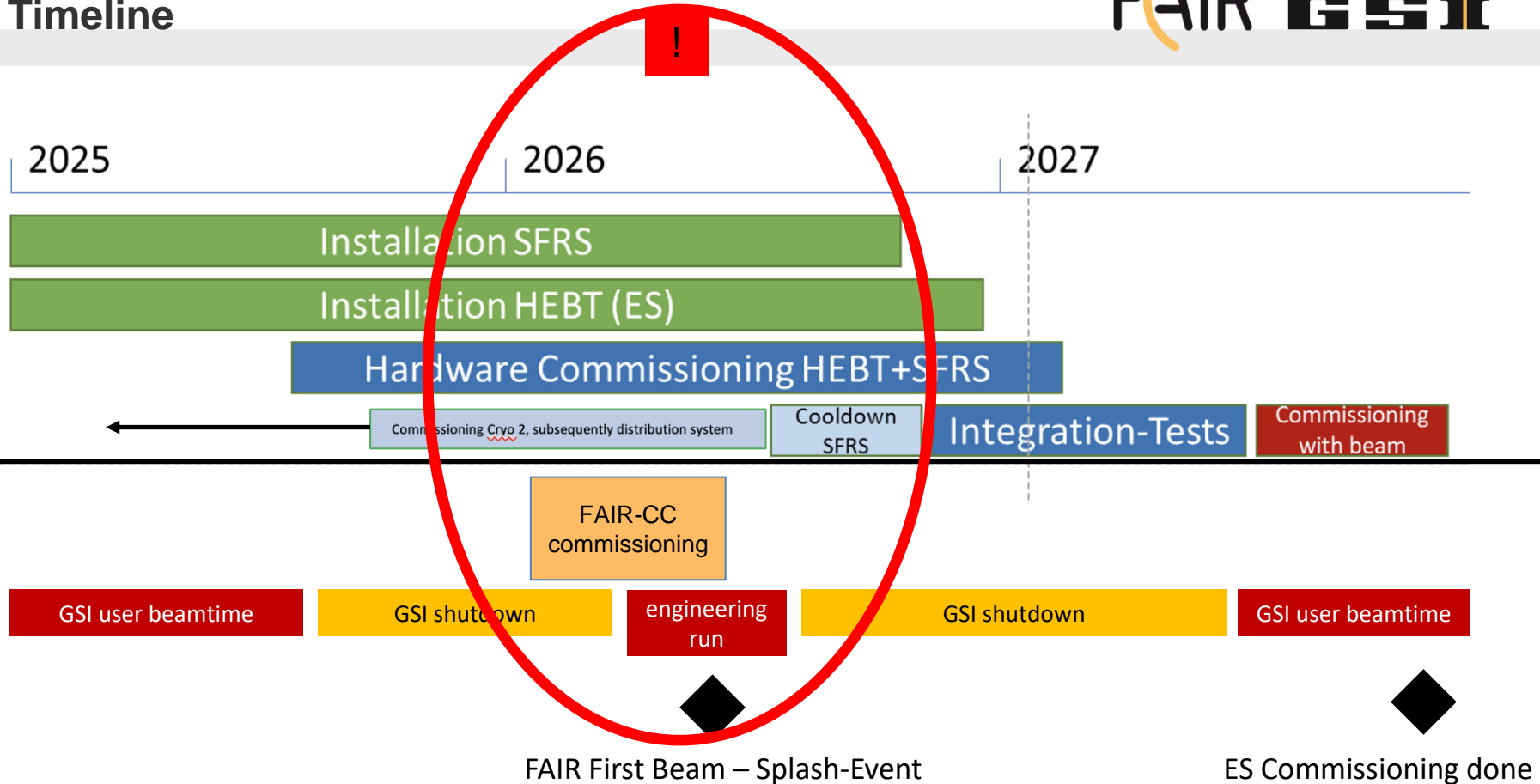
NUSTAR



GSI Experiment Areas

- UNILAC Target
- SIS18 Targets
- ESR
- FRS
- Crying

Timeline



FAIR Control Center

fully digital central control room for all GSI&FAIR accelerators
25 freely configurable work stations @ 643m²+ visitors gallery,
kitchen, conference room, meeting room on same level



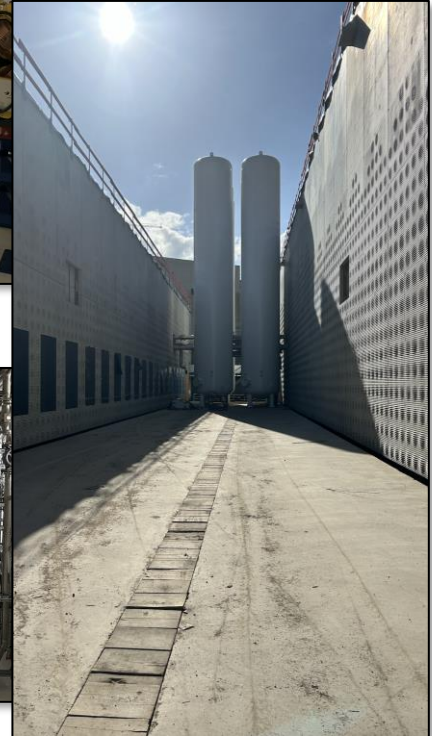
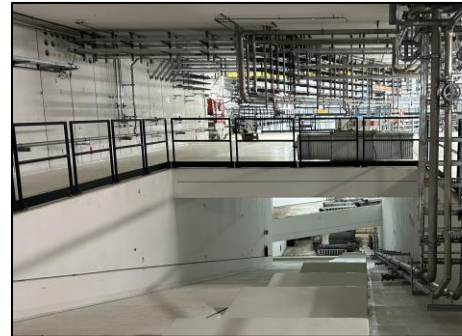
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construction ongoing
2025: installation of equipment
2026: commissioning
2027: regular use in user beam time

Main Topics on the Way to first Beam

- Commissioning concept and schedule
- TBI commissioning
- Commissioning Cryo-Distribution
- Hardware Commissioning & Test Automation HEBT & SFRS
- Safety organization during commissioning
- **Commissioning FAIR Control Center**
- **Re-Commissioning UNILAC with FAIR control system**

- 1st beam event
- Strategy for beam commissioning (HEBT & SFRS)
- **Operational organization, processes in the FAIR-CC**
- **Coordination FAIR commissioning/GSI user operation**
- Commissioning targets
- parameters for project completion



Dedicated Commissioning Workshop 11/2024

Format:

2-day workshop, to be organized annually with a scope and group of participants appropriate to the current commissioning phase

Participants: (tech. Director + Head of Accelerator Division + 25 internal, 3 external)

Scope 2024:

- Commissioning FCC in 2026
- „FAIR First Beam Event“ towards T1S1 in 2026
- Start HW-Commissioning HEBT & SFRS for Early Science (up to 2027)

Goals and Deliverables of 2024 Edition

- **Agreement** on steps towards full operation from FCC: to be done until 12/2025, teams, responsibilities
- Plan on a **first FAIR beam event from FCC**: 2026 date, concept (“splash events”), roles, responsibilities
- **Alignment** of the understanding of objectives and procedures in the preparation and implementation of FAIR commissioning up to first beam on target
- **Commitment** to a common schedule.
- **Review** of the processes and schedules developed to date. Identification of gaps and risks.

