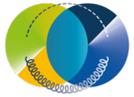


color meets flavor

TA1 (Instrumentation) objectives

- Setup a new worldwide unique experiment at ELSA
- R&D in the areas of microstructured detectors and microelectronics for next-generation particle physics experiments.
- Create new infrastructure: Intelligent Hardware Lab (IHL)
 - ASIC development (analog & digital), verification
 - FPGA development, embedded FPGA (eFPGA)
 - AI accelerated hardware



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TA1 status and news: IHL leadership

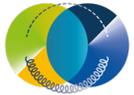
Kickoff meeting 14/11/25

<https://indico.hiskp.uni-bonn.de/event/1195/timetable/#20251114>

Selection process for the IHL leaders (Dec 25)

Result: Team of two IHL leaders endorsed by CB:





TA1 status and news: INSIGHT positions allocated

INSIGHT HARDWARE POSITIONS FUNDED BY CmF

INSIGHT positions for first 3 years (2026-2028): **2 postdoc, 5 PhD**

Proposal from TA1 leaders:

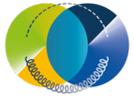
- Tagger (WG Hurck, Bonn) 1 PhD
- Pixel (WG Cristinziani/Hamer, Siegen) 1 PhD (*)
- GEM (WG Ketzer, Bonn) 1.5 PhD (**)
- Magnet (WG Neubert, Bonn) 1 postdoc
- Straw tracker (WG Albrecht, Dortmund) 1 PhD (***)
- TOF/DAQ (WG Thoma, Bonn) 1 PhD
- FWEC (WG Thoma, Bonn) 1 postdoc

(*) Pixel: Dortmund will additionally invest one postdoc TUDO-MKW funds
Bonn will invest one postdoc position from UBO-MKW funds.

(**) A second PhD position at Bonn is requested but can only be allocated to 50% at this point.
Also clarification is needed about the role of Siegen (WG Fleck).

(***) We leave it at the discretion of Dortmund whether this position is transferred to Pixels

Outcome of the CB vote (by circulation): Yes: 16, No: 0, Abstain: 0

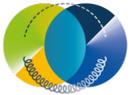


ELSA/INSIGHT timeline

Challenge: The **ELSA infrastructure** will be consolidated during a two-year shutdown from Q4/2025 to Q3/2027, including improvement of power efficiency through a new cooling scheme and an overhaul of the sources for both unpolarized and polarized beams. Beam time for INSIGHT will be made available from the end of 2027 on, as a first step of the structural development of the ELSA accelerator complex. Figure 4.5.5.7 shows the timeline for the ELSA accelerator and for the individual subdetectors of INSIGHT.

ELSA availability closely coupled to overall BLB planning of Nussallee 12 refurbishment in Bonn.

Significant slippage of schedule during the last two years.

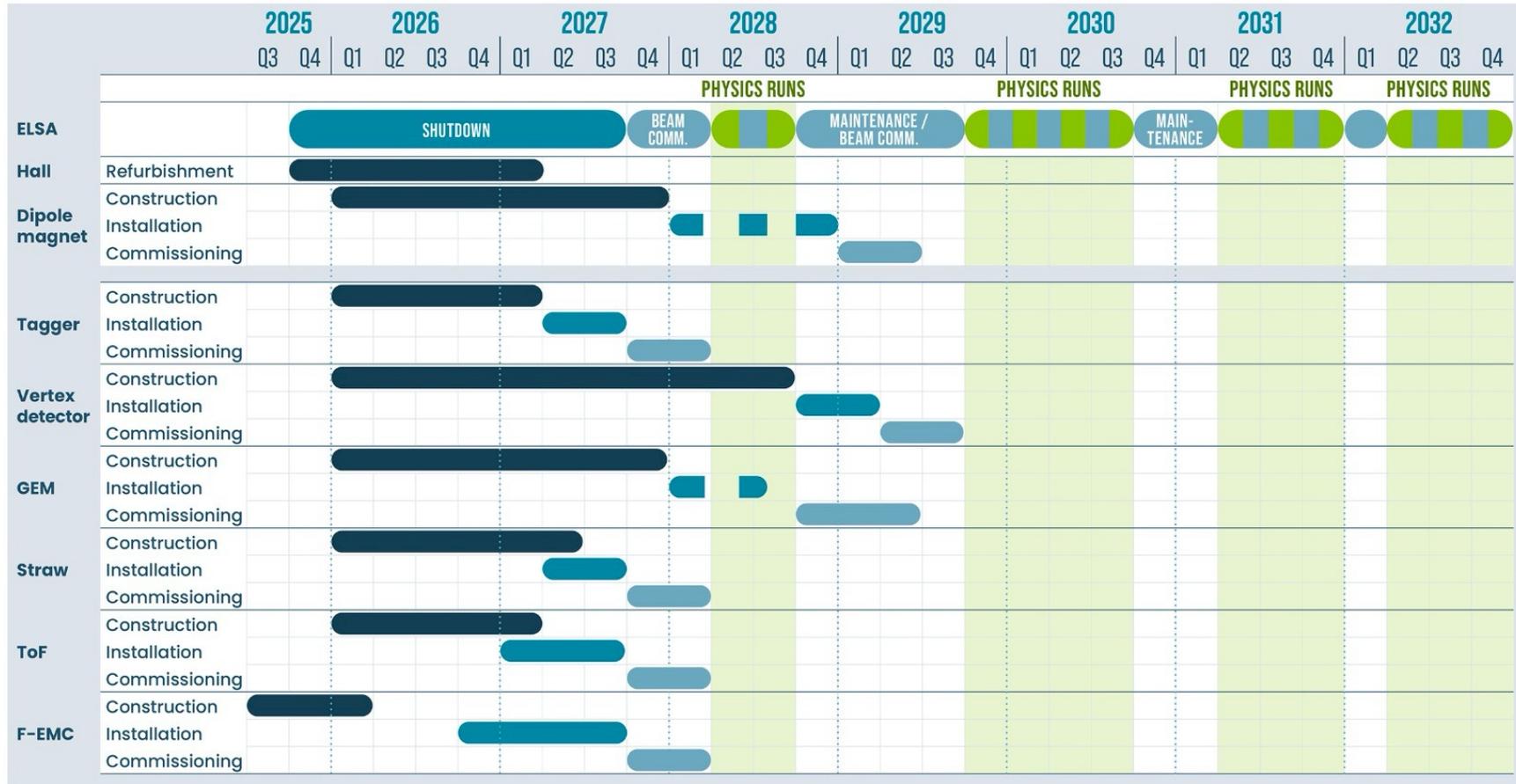


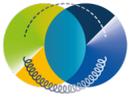
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ELSA/INSIGHT timeline

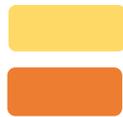
TIMELINE FOR INSIGHT @ ELSA

from proposal





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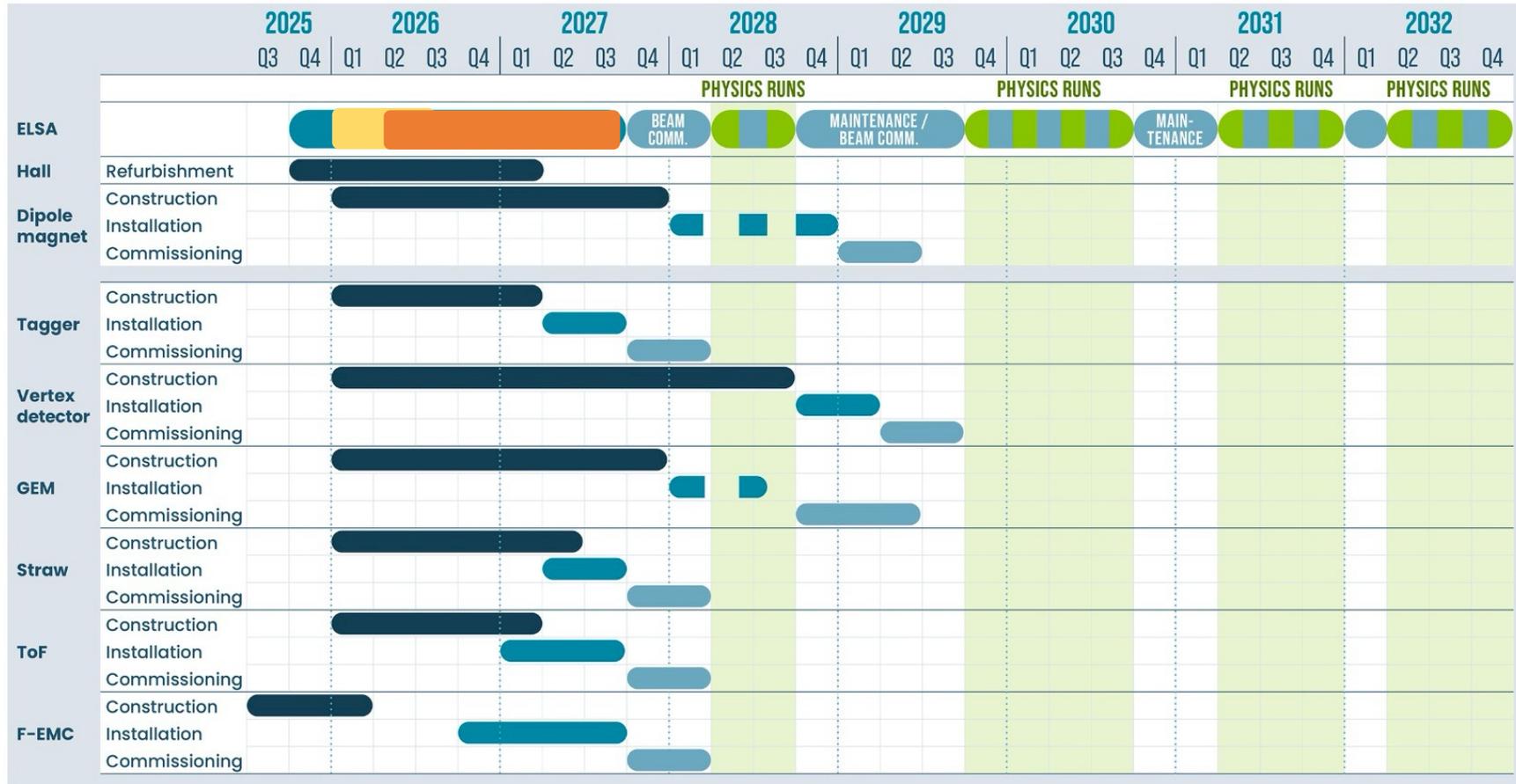
Synchrotron capacitors replacement (done by ELSA team)

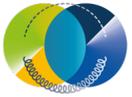
Cooling plant, hall fire protection, move power supply, reconnect E3 (BLB)

ELSA timeline

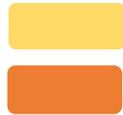
TIMELINE FOR INSIGHT @ ELSA

from proposal





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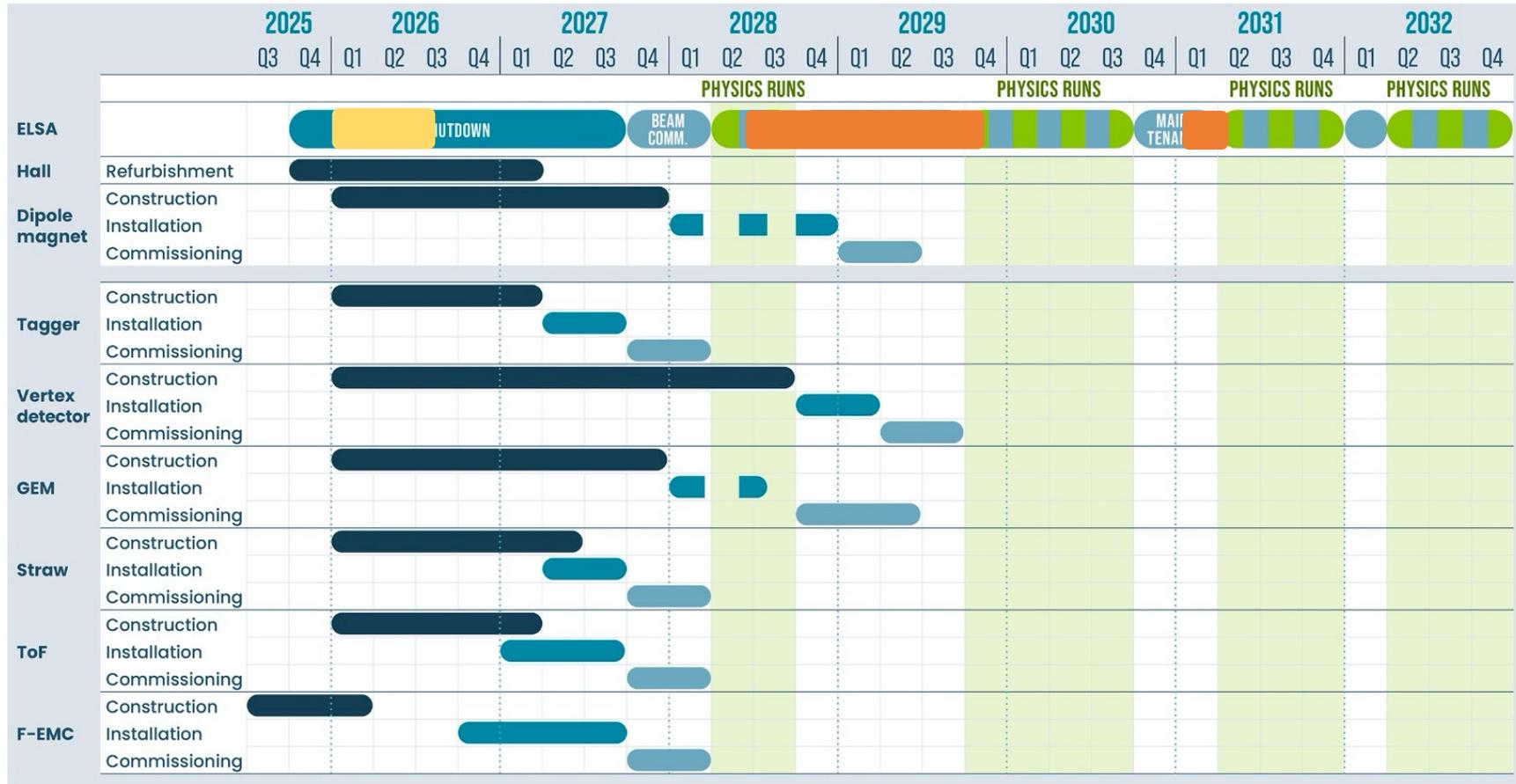


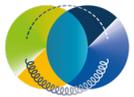
Synchrotron capacitors replacement (done by ELSA team)

Cooling plant, hall fire protection, move power supply, reconnect E3 (BLB)

ELSA timeline

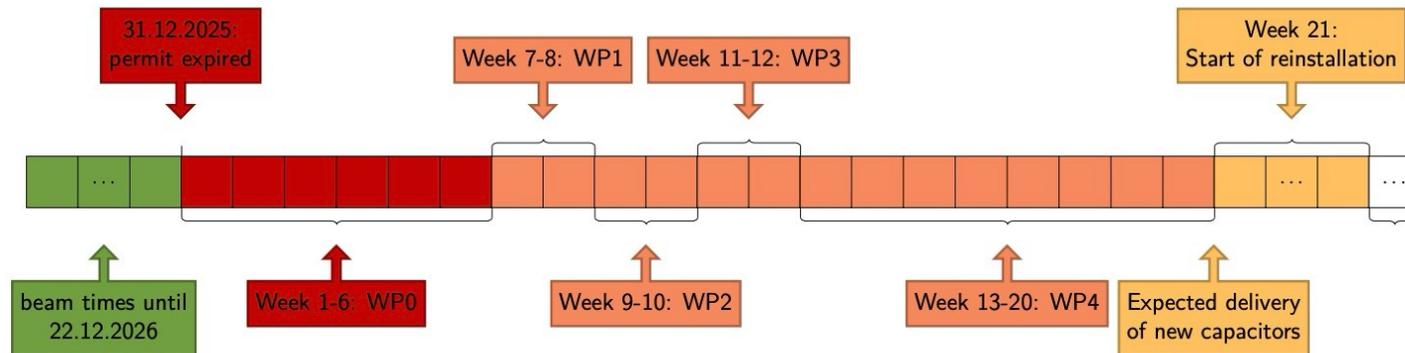
TIMELINE FOR INSIGHT @ ELSA



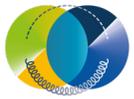


ELSA: capacitor replacement started

Project Progress & Plan „Exchange of Synchrotron Capacitors“ D. Proft



- WP0: Finishing measurements of resonance circuit
- WP1: Site setup (**completed**)
- WP2: Dismantling I: I&C cabling, cabinets, first 10% of capacitors (**90% completed**)
- WP3: Dismantling II: Crane removal of the transformers (**planned begin in week 11**)
- WP4: Dismantling III: Removal of the ≈ 600 remaining capacitors (remaining 90%)
- Start of re-installation in week 21 \rightarrow new capacitors, transformers, HV switches
- Begin of commissioning \geq Q3/2026:
cold (external excitation of res. circuit) / warm (with PS) / hot (with electrons)



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ELSA – dismantling of capacitors started

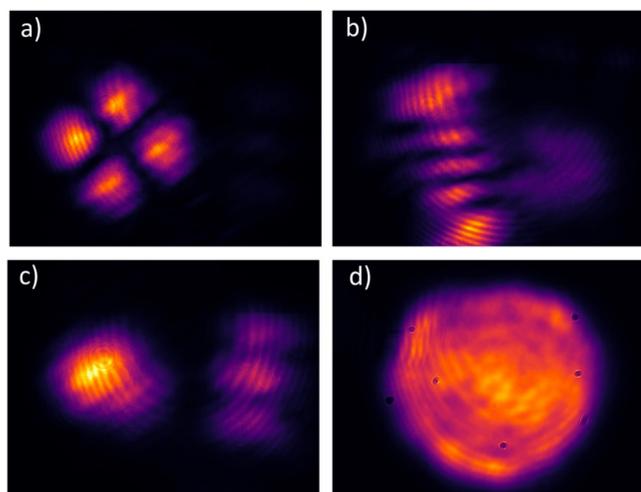


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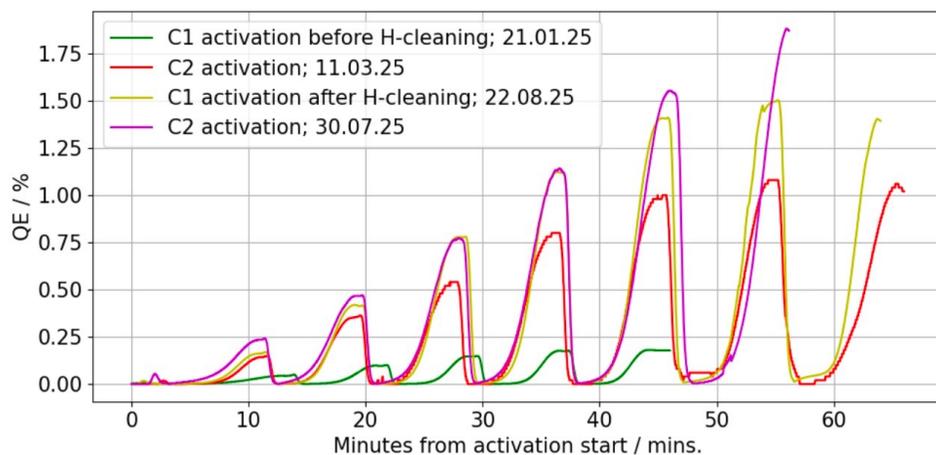
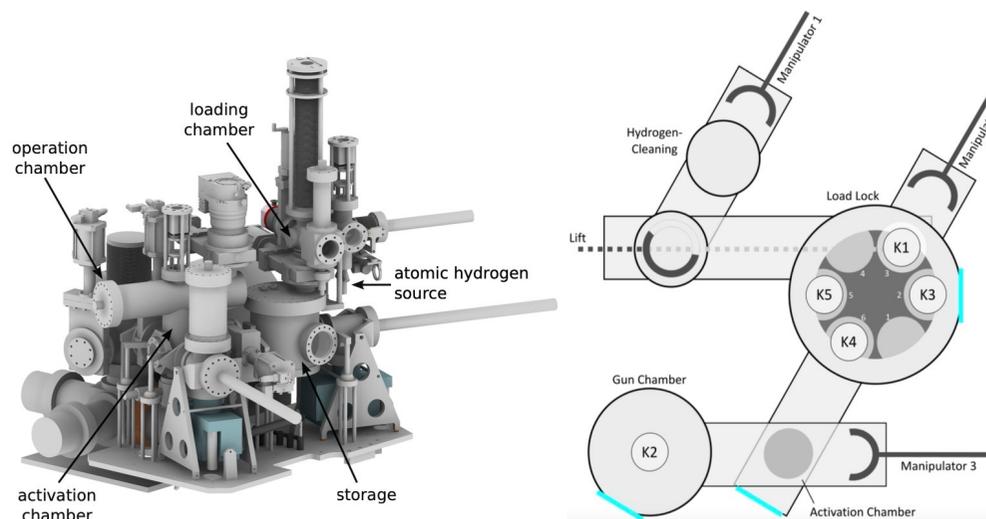
CmF Retreat Schwelm

9

Polarized electron source reworked



TiSa laser reworked



Measured polarization
 $P = 82.6 \pm 0.5\%$