



# MAGiC STAP Meeting

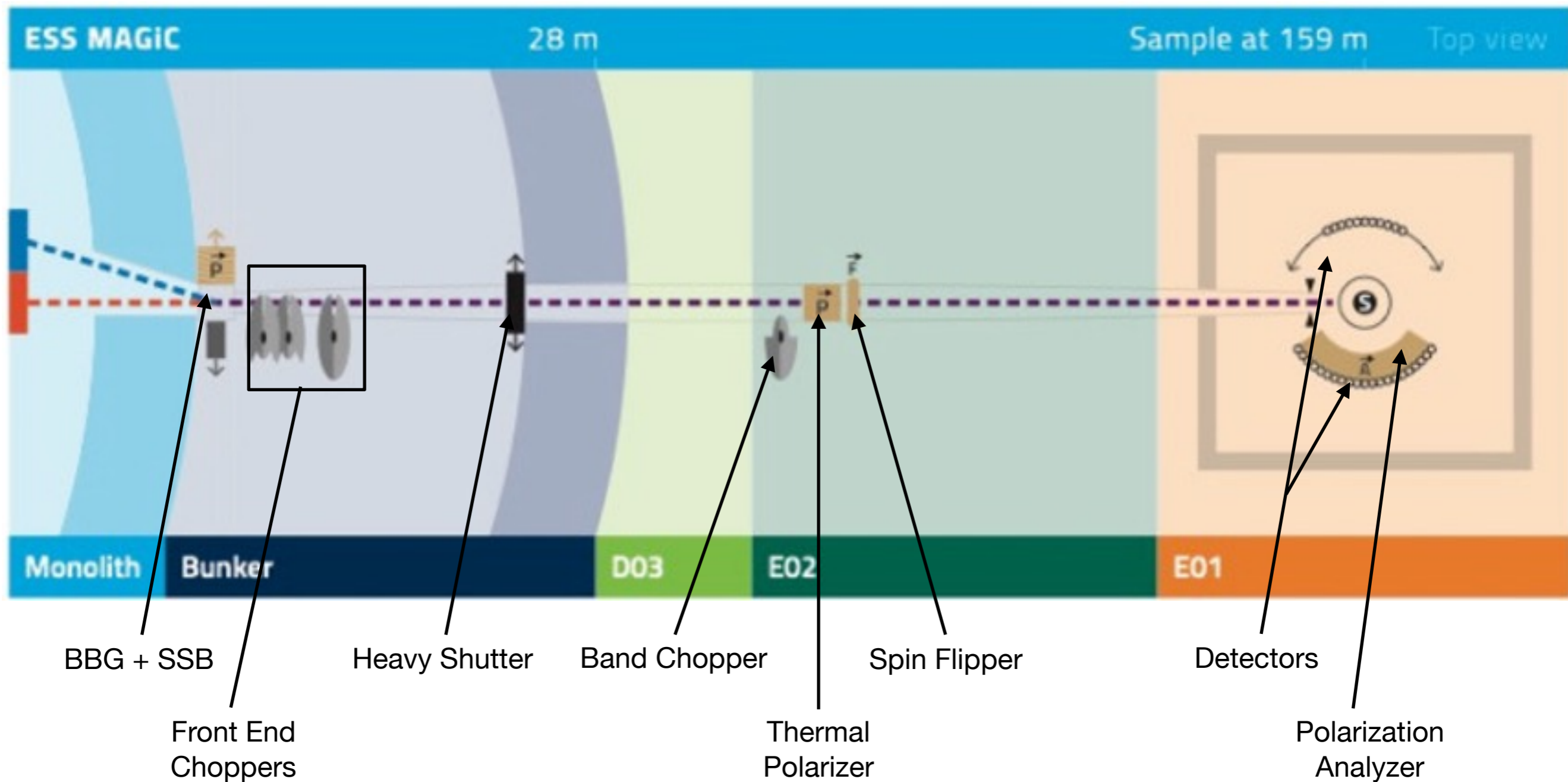
April 2021



# MAGiC

## Polarized diffractometer

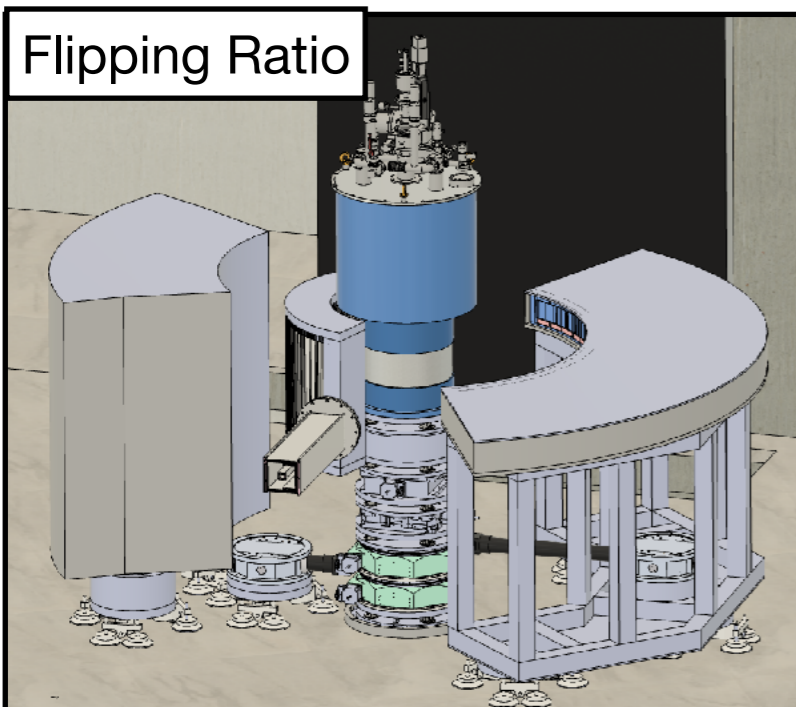
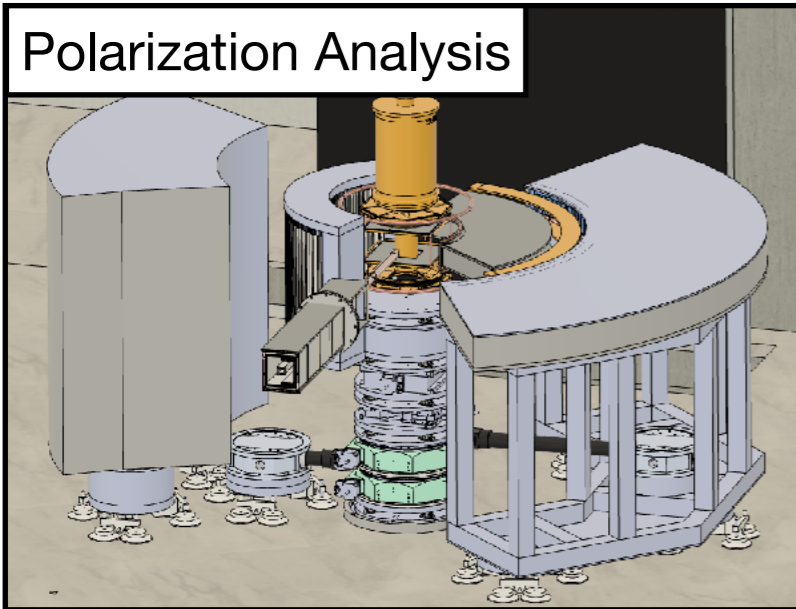
13.1 M€ CBV  
LLB = 7.8 M€ (59%)  
FZJ = 3.1 M€ (24%)  
PSI = 2.2 M€ (17%)



# MAGiC

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## Polarized diffractometer



### Main characteristics

- Permanently polarised (0.6-6 Å)
- 160 m long with two detectors
- Single crystals + powder
- Two main setups:
  - Flipping ratio collection
  - XYZ polarization analysis

### Science: magnetism

- Molecular magnets, superconductors
- Exotic magnetism, QSL
- Thin films, interfaces

# MAGiC

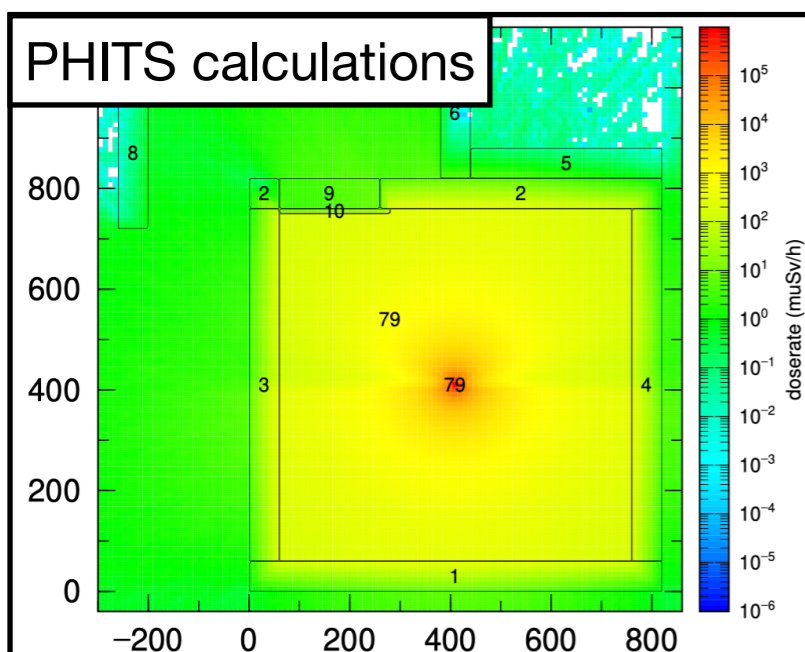
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## Polarized diffractometer



### Major Work Packages

- Neutron Guide System (offers on 03/05)
- Experimental Cave (Installation in Q1/22)
  - Detectors/Monitors (sub-TG3 done)
  - Analyser (redesign in progress)
  - Collimator/Sample station (OK)



### Transferred to ESS

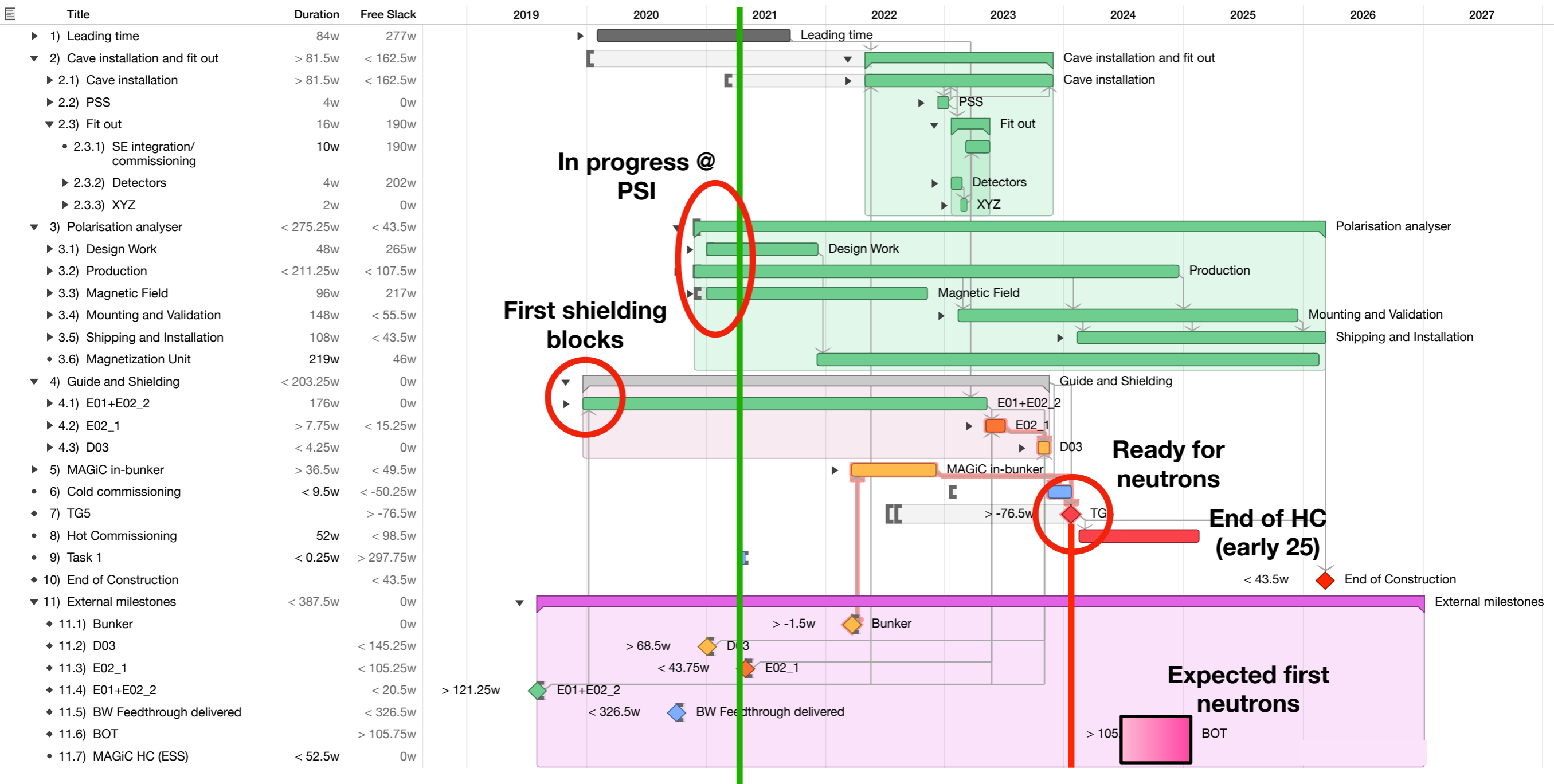
- Beamline shielding
- Choppers
- Electrical + Utilities
- PSS = Safety

Excellent progress + Communication

No cost estimate  
No timeline

# MAGiC

## Installation plan (LLB)

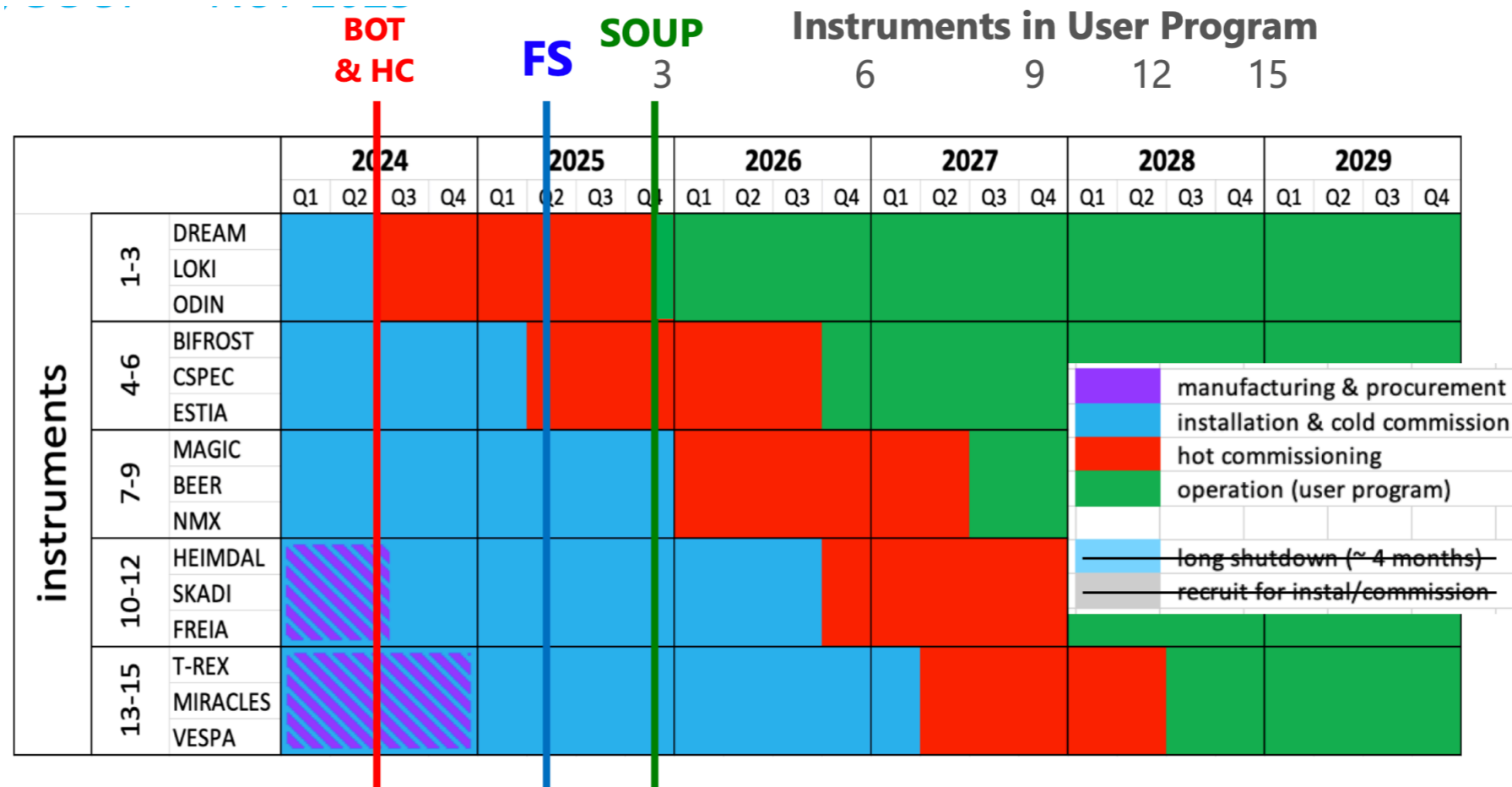


# ESS roadmap

- 4 scenarios presented
  1. ~~No additional funding = BoT 2028 with 3 instruments~~
  2. Funding 1 = BoT end-2024 with 3 instruments
  3. Funding 2 = BoT mid-2024 with 3 instruments
  4. ~~Full funding = current timeline holds~~
- MAGiC construction is on time for BoT (2 & 3)
- MAGiC switch to HC and SOUP controlled by ESS. Not IK project anymore => depends on HR and staging plan
- Plan for MAGiC:
  - Instrument #7 in queue
  - HC starts in early/mid-2026

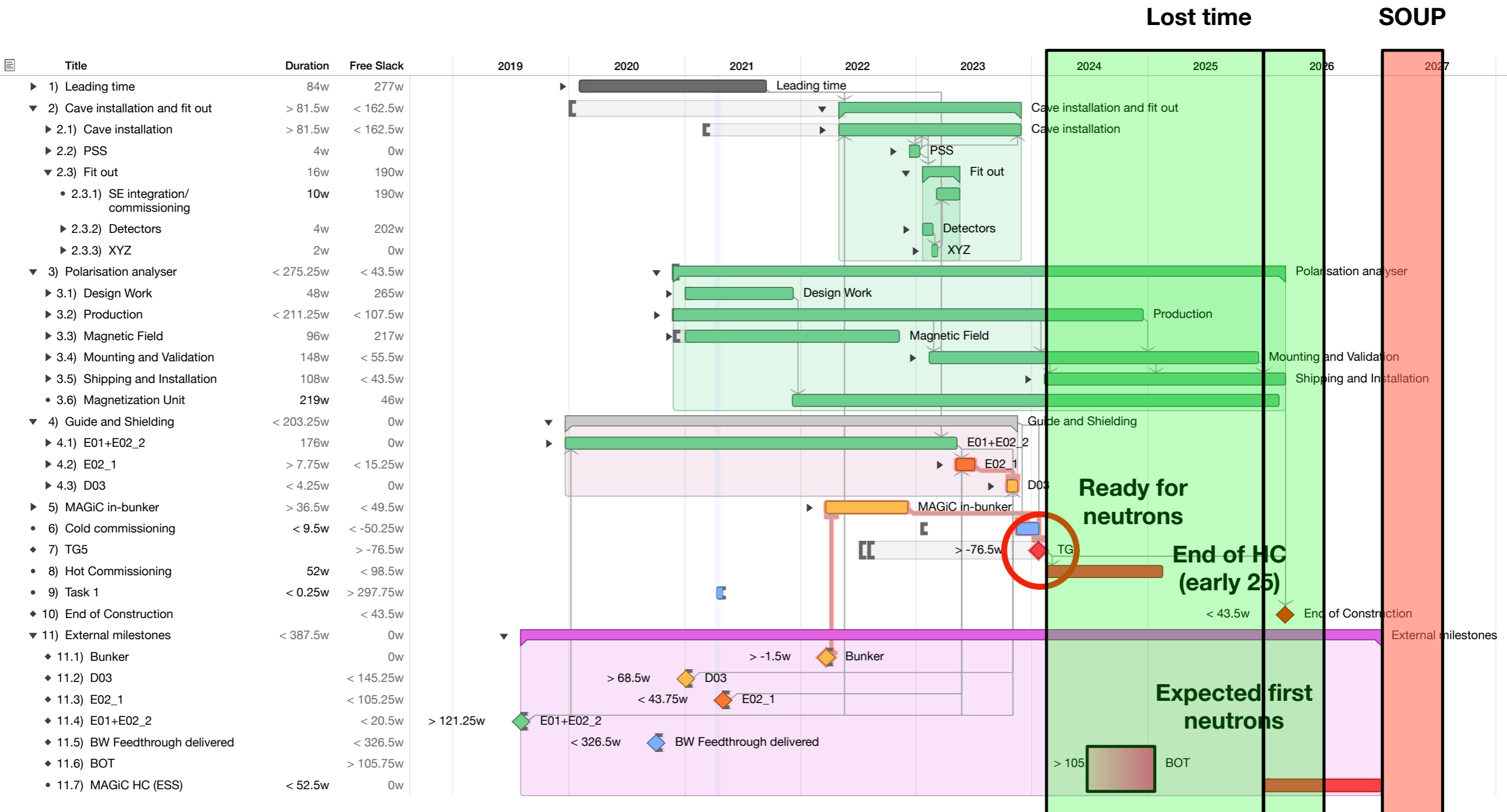
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# MAGiC

## Installation plan (LLB)





# ESS MAGiC roadmap

- What HR are needed:
  - 2 instrument scientists: what to do for 2 years ?
  - 1 engineer/technician
  - 1 data scientist
  - SE/Electrical/metrology/... support
- What is STAP PoV about ESS plan for HC ?
- Where to find required support ?