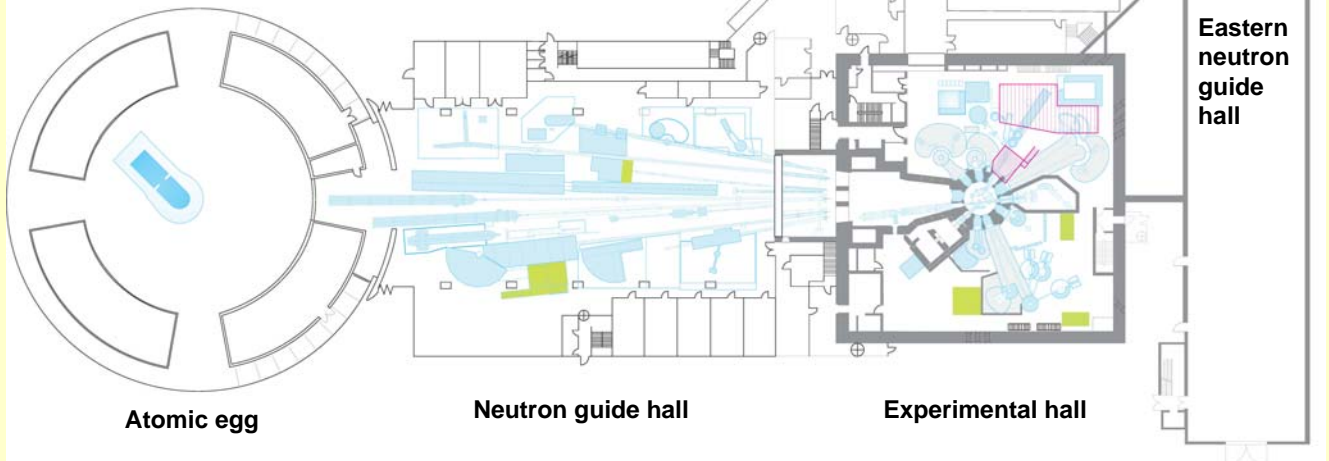


New places for experiments in the field of fundamental neutron physics at the FRM-II

FRM-II beam tube layout



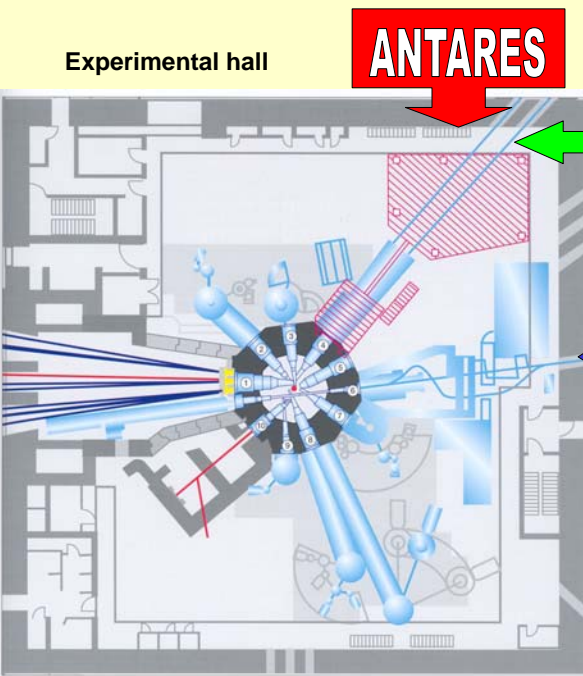
New locations for three experiments:

- ANTARES (Advanced Neutron Tomography And Radiography Experimental System) currently working at beam tube SR4b moves to SR4a.
- MEPHISTO (a MEasuring facility for particle PHYSics with cold neuTRons) currently working on NL1 (neutron guide hall) moves to SR4b.
- UCN-Source Mini-D₂ (planned at SR4a) moves to throughgoing beam tube SR6.

Impacts on the experiments:

- UCN-Source Mini-D₂:
 - New cold premoderator necessary
 - UCN density of $1 \cdot 10^4$ UCN/cm³ reachable
 - More space for experiments with UCN: Lifetime experiment, EDM experiment
- MEPHISTO:
 - Building up a dedicated neutron guide with Cold Neutron Flux $\sim 5 \cdot 10^9$ CN/(cm²·s)
 - Much more space than at NL1 for polarization and experiments

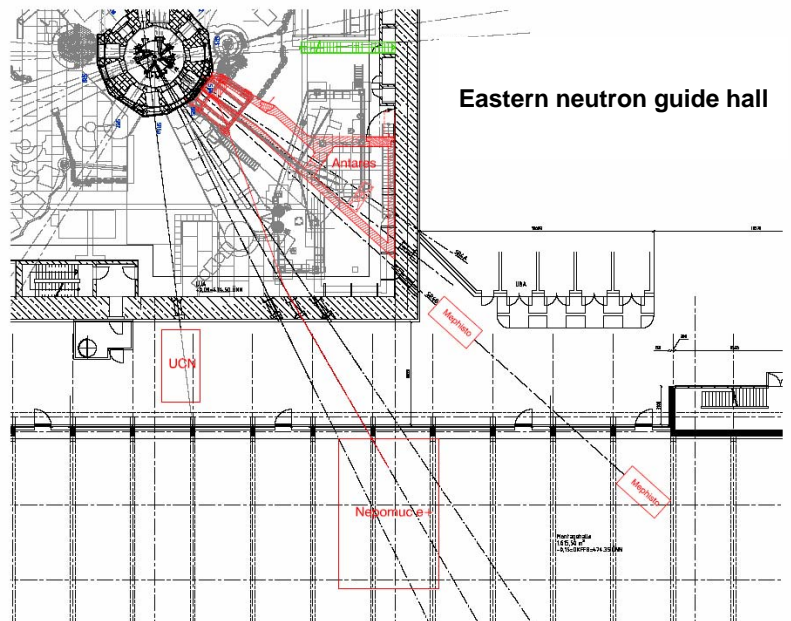
Experimental hall



MEPHISTO

UCN

Eastern neutron guide hall



UCN (Ultra Cold Neutron) Source Mini-D₂ at SR-6

