Jülich Centre for Neutron Science

Heinz Maier-Leibnitz Zentrum

JÜLICH FORSCHUNGSZENTRUM

EUROPEAN SPALLATION SOURCE

Instrument Update

6th ESS Instruments Collaboration Board Meeting
22 June 2016 | Andreas Wischnewski
Jülich Centre for Neutron Science

SKADI: SANS @ ESS

Updates since last ICB

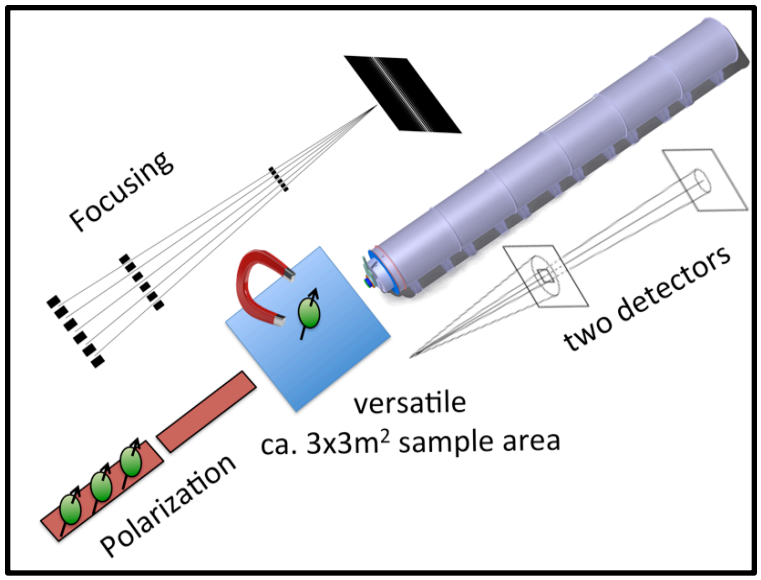
- Official start of Phase 1
- STAP Meeting (10.05.2016)
- Scope Setting Meeting (20.06.2016)
- Date set for TG2: 29.09.2016

STAP

- Pleased by robust design decisions
- Good complementarity SKADI/Loki
- Timescale is ambitious
- Requested funding reasonable
  - ➢ Each reduction leads to sore backset in scientific performance

Technical

- Change of beamport to E5
- Removal of all active components from bunker area
- Improved chopper setup



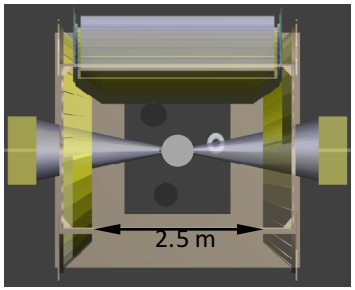
Instrument Team

Sebastian Jaksch, FZ Jülich, Germany
Henrich Frielinghaus, FZ Jülich, Germany
Romuald Hanslik, FZ Jülich, Germany
Jacues Jestin, LLB, France
Sylvain Désert, LLB, France

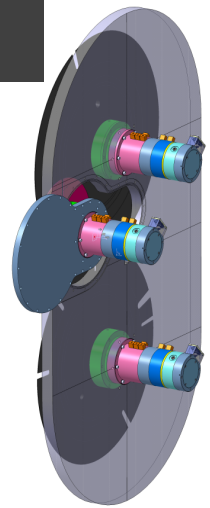
DREAM Diffraction Resolved by Energy and Angle Measurements

CORE TEAM

Lead scientist: Werner Schweika
Instrument scientist : Mikhail Feygenson
Lead engineers : Peter Harbott, Andreas Poque



Detector layout


Chopper systems

PROGRESS SINCE LAST ICB

- Beam port allocation change from port S4 to S3
- Concept of Operation sent STAP members
- Sample environment was defined with LLB
- Detector specification and costing done
- Report on T0 chopper concept given to ESS

CURRENT ISSUES

- Calculations for shielding and T0 choppers from ESS are delayed

STAP meeting June 22,23
Scope-setting: 2016-08-09
Tollgate 2: End of 2016

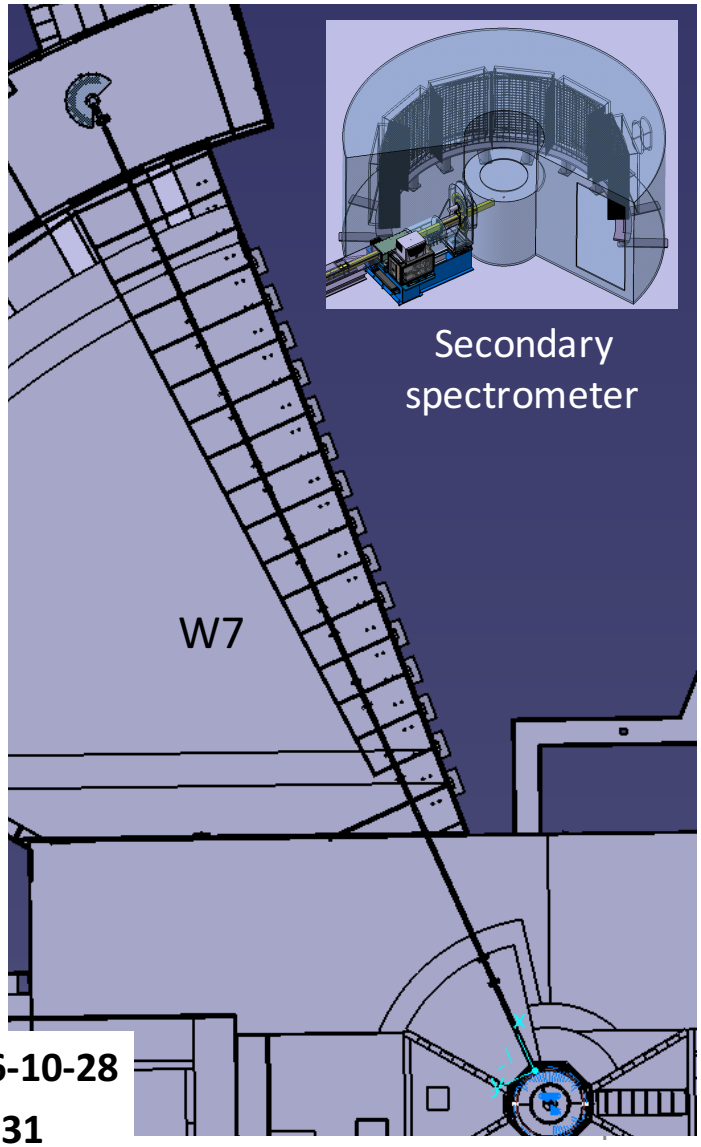
T-REX

CORE TEAM

Lead scientist: Nicolò Violini (FZJ)
Lead engineer: Hans Kämmerling (ZEA-1)
Partner: A. Orecchini (Perugia)

PROGRESS SINCE LAST ICB

- p1 funded
- dedicated WPs for detectors and shielding calc.
- neutron optics review (go for TOP moderator)
- integration problems and some solutions
- cost analysis component by component



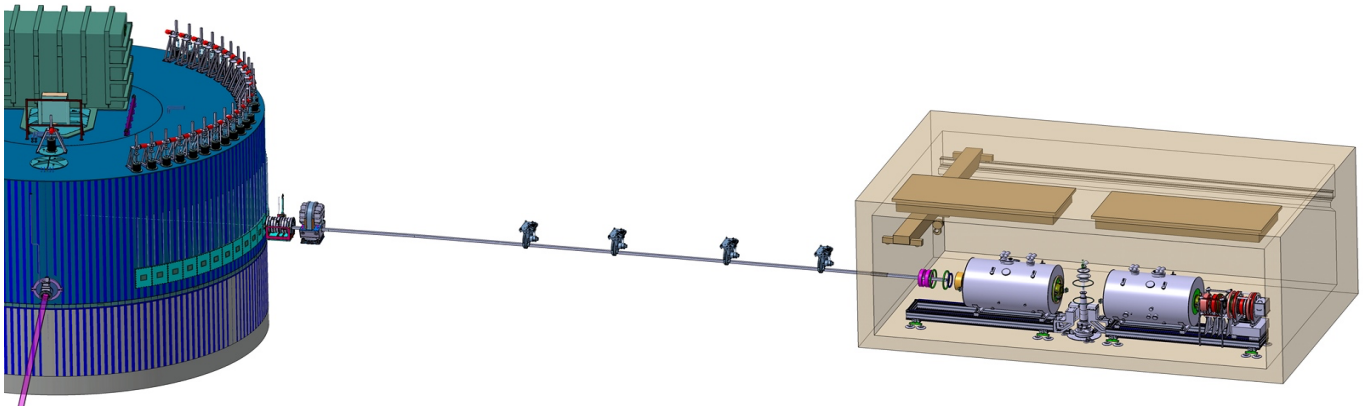
CURRENT ISSUES

- role of the ESS in the shielding design & calculations
- detectors cost is high/uncertain

Scope-setting: 2016-10-28

Tollgate 2: 2017-01-31

CONSENSE: Proposal for a High resolution NSE for ESS



TEAM: S. Pasini, T. Kozielewski, M. Monkenbusch (FZ Jülich)
R. Georgii, C. Pfleiderer, P. Böni (TU München)

DESIGN PHASE: Basic design study of a hybrid instrument (NSE + NRSE) pre-financed by TUM and FZJ

STAP MEETING September 16; decision on acceptance 2017

BUDGET: 30% TUM, 70% FZJ