Contribution ID: **81** Type: **Talk (25 + 5 min)**

Endurance –Modernisation of the instrumentation suite at the Institut Laue-Langevin

Tuesday 21 March 2023 15:00 (30 minutes)

Endurance encompasses more than 30 new or upgraded instrument and infrastructure projects, rolled out over 8 years between 2016 and 2023 and with a financial envelope of nearly 60 M€. Many new or upgraded instruments have already been deployed and in user-operation including: the fission-fragment gamma ray spectrometer, FIPPS; the upgraded cold-neutron TOF spectrometer IN5; new thermal TOF spectrometer PANTHER; and a second protein crystallography station, DALI. The D3 hot-neutron diffractometer and thermal IN20 triple-axis spectrometer have been upgraded while new and additional detectors for the SANS instruments D11 and D22 have been installed. A fully modernised D16 cold-neutron diffractometer and new cold-neutron imaging instrument NeXT will be completed by the end of 2022.

Delivering a full suite of modernised instrumentation is critically dependent on the renewed in-pile beam extraction, H1-H2 and the H24 (thermal) and H15 (cold) neutron guides. H24 will bring dedicated guides to the upgraded D10+ single crystal diffractometer, IN13 backscattering instrument and the new XtremeD powder and single-crystal diffractometer. H15 will accommodate a substantially upgraded D(00)7 polarised diffuse scattering and spectroscopy instrument while D11 will be rebuilt and relocated with an optically cleaner collimation. Two additional end-of-guide positions are available for new instrumentation: The SHARP+ cold TOF spectrometer and a 4th SANS instrument, SAM.

Author: Dr DEWHURST, Charles D. (Institut Laue Langevin)

Co-author: Prof. MEYER, Andreas (Institut Laue Langevin)

Presenter: Prof. MEYER, Andreas (Institut Laue Langevin)

Session Classification: European Neutron Sources: Status and Upgrades

Track Classification: Neutron Sources and Facilities