

## Minutes of The ISIS User Committee

Friday 5 June 2015, 10:00

The Cosener's House  
Abingdon, Seminar 1

### Attending:

IUG1 Crystallography:	Anthony Powell, Peter Slater
IUG2 Liquids & amorphous:	John Holbrey, Beau Webber
IUG3 Large Scale Structures:	Aiden Hindmarsh
IUG4 Excitations:	Jon Goff (IUC Chair), Phil Salmon
IUG5 Molecular Spectroscopy:	Sylvia McLain, Christoph Salzmann
IUG6 Muons:	Alan Drew
IUG7 Engineering:	David Dye, Michael Preuss

Robert McGreevy	ISIS Director
Philip King	Head, ISIS Spectroscopy and Support Division
Sean Langridge	Head, ISIS Diffraction Division
Steve Wakefield	Head, ISIS Experiment Operations Division
Andrew Kaye	ISIS User Programme Manager
Christy Kinane	Recording Secretary
David Lawson	John Innes Centre, Norwich; Chair, Diamond User Group
Jörg Zegenhagen	Experimental Coordinator, Diamond Light Source

### Apologies:

Jeremy Lakey, Don Paul, Zoë Bowden, Debbie Greenfield

### 1 Welcome:

**Jon Goff**

The Chairman welcomed everyone and asked them make brief introductions for new members and visitors from the Diamond User Committee.

### 2 Minutes (Dec 2014 IUC Meeting):

The minutes of the December 2014 meeting of the ISIS User Committee were accepted.

### 3 Matters Arising (Dec 14):

Action: Re polarised neutrons. ISIS has appointed a new technician on the polarised neutron side together with additional scientific expertise, in order to develop this area further.

Action: Andrew Kaye to consider further how user feedback will be gathered.  
This is ongoing.

**Action 1: Andrew to consider further how user feedback is gathered.**

## 4 Chairman's report

Jon Goff

The Chairman reported on changes to the Large Facilities Funding Model. He highlighted the fact that the current membership of the steering group now includes the Facility Directors.

As part of the facility funding process, the research councils have prepared a Science Requirements Document (SRD) through a process involving a wide user consultation. STFC have produced various funding scenarios for facilities on the basis of different financial settlements. The Large Facilities Subgroup of STFC's Science Board has been asked to consider the scientific consequences of these scenarios in relation to the SRD.

STFC is currently developing a computing strategy, requesting input from both the ISIS and Diamond user committees. A web-based consultation with the user community with input from the IUC formed the ISIS submission to this.

UK-ESS Project: A UK project office is being set up to co-ordinate the UK contribution to the ESS. Following on from the UK-ESS Interactions and Opportunities meeting at RAL in December 2014, a lot of academics have indicated they would like to get more involved with ESS.

## 5 Reports from User Groups

### Crystallography:

From the discussion session at the NMUM meeting last month, there was a good deal of satisfaction with the ISIS instruments and staff. Staffing levels are still a concern, and people are very happy that there are adverts out for HRPD and Polaris scientists. The sample environment at ISIS was acknowledged as excellent; more equipment for in-situ experiments is needed.

The user community would like development of PDF (Pair Distribution Function) techniques at ISIS. This has been discussed as spanning both ISIS and Diamond, and there is a joint ISIS-Diamond scientist in this area. It was noted that there will be a weeklong PDF workshop at ILL next year.

The crystallography community welcomes the facility development studentships and would like to see more training for students on data analysis.

### Disordered Materials:

This community had a user meeting to mark 25 years of operation of SANDALS. Ideas for a third beamline of this type for the future were also discussed.

The new instrument scientist recently appointed on NIMROD was welcomed. New data analysis software is good but needs documentation.

Concern was expressed over the delay in distributing the panel results from proposal round 15-1.

**Post-meeting note:** Award letters were sent out by ISIS within two weeks of the FAP meetings for the 15/2 round.

### Large Scale Structures:

There has been a shift in the focus of this user community, particularly in the use of reflectivity, to more 'casual' users for whom neutron scattering is a smaller part of their research. New users are a good thing, but this increases the time needed from instrument scientists to support experiments.

It was noted that data fitting software used for reflectivity analysis needs an ongoing plan for support. Related to this is the need to train users and students in data fitting.

### **Excitations:**

Whilst there had been no specific user group meeting since the last IUC meeting, the group will support the Theoretical and Experimental Magnetism Meeting in July 2015, which will include a user session.

There has been some progress on instruments, with the LET detector bank almost fully complete. The oscillating collimator and  $^3\text{He}$  insert for LET are being commissioned.

The MAPS guide project will massively increase flux and a similar guide project is also being assessed for MARI.

A new Linux data analysis cluster has been set up to allow data analysis from MERLIN and LET. However, there are still issues for users in accessing data from offsite after an experiment.

New instrument scientists, Manh Duc Le and David Voneshan, have been recruited to work on MARI and LET, and a polarised neutron specialist, Goran Nilsen, will be joining the group in the near future.

### **Molecular Spectroscopy:**

It was noted on the staff front that Andrew Seal has moved on from VESUVIO, but that new staff had joined on OSIRIS/IRIS to bring operations on those instruments up to 100%.

IRIS/OSIRIS have been reviewed. The final report from this review had been completed and will be going to the facility board next Friday and then it will be released publicly. This followed the Maps/Mari/Tosca review last year; HRPD will be the next instrument to be reviewed.

### **Action 2: Andrew to pursue post-FAP award letter process.**

*Post-meeting note: the IRIS/OSIRIS review report can be [found on the ISIS website](#).*

NMUM provided a good opportunity for community discussion. The user community like being able to combine Raman and DSC (Differential Scanning Calorimetry) techniques. They would like to combine DSC and QENS (Quasielastic Neutron Scattering) in the future.

The idea of closer liaison between sample environment and visiting scientists was raised. It was noted that recruitment difficulties were aggravating sample environment support at present.

There was discussion of the merits of technique- vs science-based FAPs.

### **Muons:**

The long shutdown had allowed a beamline upgrade giving a muon flux increase, and further detector upgrades would enable this to be fully exploited, e.g. on MuSR, to provide significant data rate increases. A pulse slicer could then be used to increase the frequency response.

The request noted earlier for more rapid FAP results was noted again, and the quality of food provision in the evenings and over the weekends was also raised: the vegetarian selection and quality were particularly disappointing.

Although progress has been made, further work is needed to develop Mantid for Muon data analysis (in addition to reduction). James Lord's Quantum program was highlighted as a good example of this.

Further support for gas and pressure experiments was requested.

### **Engineering:**

Engin-X is still heavily oversubscribed, compounded by the shutter failure during the last cycle.

On the instrument itself, further slit and detector improvements would be welcomed. In terms of offering variable temperature facilities and a good overall user experience, Engin-x remains the best instrument in the world. There was discussion on the use of GEM for engineering proposals.

## **6 Introduction to the diamond user committee**

**David Lawson**

Professor David Lawson presented an overview of the Diamond user community, the 24 operational Diamond beamlines and Diamond access mechanisms.

Diamond have an annual user meeting which has a student day followed by a main meeting which is two days long with parallel workshops and the chance to discuss issues with beamline scientists. The Diamond User Committee (DUC) meets twice per year after the user meeting.

DUC committee struggles to get feedback from users, with end of experiment forms seeming to provide the best mechanism.

There is a need to address on-site accommodation for longer-term visitors. There are also not enough rooms available when all facilities are running. The ISIS Director noted that the accommodation issue is known about and that it is being progressed.

The Diamond User Community has expressed an interest in single sign-on across site for access into various online systems, and the European Umbrella project, which both ISIS and Diamond are part of, was discussed.

The two Diamond proposal deadlines (1/4 and 1/10 each year) are close to the ISIS ones, but there was no appetite from either community to make them coincide. The potential of double jeopardy was of more concern to the user community and ISIS and Diamond had recently put in place a mechanism to deal with proposals requiring access to both facilities.

It was suggested that ISIS should send a representation at the next DUC meeting.

***Action 3: Areas for common interaction / working of the IUC and DUC to continue to be explored (Philip / Jon).***

***Action 4: Jon to consider an IUC representation at the next DUC meeting (Jon/Philip to explore).***

## **7 Update from the ISIS Director and discussion**

**Robert McGreevy**

The Director gave an overview of ISIS operations and the 30 birthday events.

He noted the remarkably smooth start-up which had been delivered after the long shutdown and the extensive work undertaken during it, including replacement of proton beam magnets and the strip-out and refurbishment of the main control room. The muon front end upgrade had gone well. Changes to the TS2 reflector assembly had been made to allow LAMOR and ChipIR beamlines optimised views of the moderators. The ChipIR instrument is a new beamline design. It has opened its shutter for the first time and is in commissioning.

## **8 Update on ISIS Machine Operations**

**Steve Wakefield**

Steve Wakefield provided the Committee with an overview of the 3 cycles that had been undertaken during the previous year, and some of the work undertaken during the long shutdown.

## **9 ISIS Facility Development Studentships**

**Sean Langridge**

The first open call for studentships had been made at the end of 2014, and ISIS had received 54 applications. Of these, 14 studentship places had been funded. There was discussion regarding support for students from Doctoral Training Centres. The studentship call will be repeated by ISIS in 2015, and there was discussion around some of the call details.

## **10 NMUM 2015**

**Philip King**

The three day format of NMUM was well received this year. Participants were very positive and they expressed a desire to keep this format for future meetings. The first day was primarily for students, with the second focusing on the scientific activities of the user community. The final morning consisted of summaries of the science sessions and updates from ILL, ISIS, Diamond and the ESS.

## **11 AoB and Date of next meeting**

The next meeting of the ISIS User Committee will be held on Friday, the 4<sup>th</sup> of December.

IUC webpage: <http://www.isis.stfc.ac.uk/user-office/user-committee/user-committee-9230.html>