

MINUTES OF MEETING

Title/Subject: Diamond User Committee Meeting #7

Venue:

Diamond House, G59

Chairman:

Prof. Bill Clegg

Time/Date:

Tuesday 18th September 2012

Secretary:

Kathryn Poulter

PARTICIPANTS

ADDITIONAL DISTRIBUTION

DUC members

Bill Clegg (Chair)

David Dye

Karen Edler

David Lawson

Peter Lee

Malcolm McMahon

Keith Meek

Peter Moody

Josep Sulé-Suso

Institution

University of Newcastle

Imperial College London

University of Bath

John Innes Centre

University of Manchester

University of Edinburgh

University of Cardiff

University of Leicester

Keele University

**Diamond Light Source
representatives:**

Isabelle Boscaro-Clarke

Steve Collins

Andy Dent

Sarnjeet Dhesi

Gwyndaf Evans

Sarah Boundy

Susan Judge

Fred Mosselmans

Kathryn Poulter

Trevor Rayment

Dave Stuart

Chiu Tang

Nick Terrill

Richard Walker

Martin Walsh

Head of Communications

Materials Village Coordinator

Physical Sciences Coordinator

Surfaces & Interfaces Village
Coordinator

MX Village Coordinator

Scientific Communications
Co-ordinator

User Office Manager

Spectroscopy Village
Coordinator

Operations Programme
Manager

Director, Physical Sciences

Director, Life Sciences

Engineering & Environmental
Science Village Coordinator

Soft Condensed Matter Village
Coordinator

Technical Director

Life Sciences Coordinator

APOLOGIES

Karen Hudson-Edwards

Birkbeck College

Pagona Papakonstantinou

University of Ulster

Joanna Collingwood

University of Warwick

1. INTRODUCTIONS AND OPENING REMARKS

Bill Clegg welcomed everyone to the meeting, in particular Peter Lee as the new Materials Village representative.

Apologies were received from Joanna Collingwood, Pagona Papakonstantinou and Karen Hudson-Edwards.

2. MINUTES AND ACTIONS

The Minutes of the meeting held on 20th March 2012 were approved.

Action: 5.4: Action ongoing. The new MX web pages are not ready yet, but are expected to be released to the User Working Group in the first instance at the end of October. Gwyndaf will also show the current content to DUC reps in the break out session.

Action: 6.7: Fred agreed to follow up for discussion later in the meeting.

Action: 6.8: The review of the Soft Condensed Matter village labs is ongoing.

All other actions were completed.

3. HEALTH & SAFETY

There were no issues raised.

4. ESUO

Bill Clegg reported that effort over the last year had been put into submitting a request for EU funding for transnational access for Physical Sciences into the latest funding call. The proposal (CALYPSO) has been successful, however the allocation has been reduced substantially from that requested. The next ESUO meeting is due to be held in October at Alba, and Bill will send on any details that are confirmed there.

Action: Bill Clegg

Biostruct-X, the equivalent for Life Sciences (MX & SAXS and x-ray microscopy) started on the 1st Sept 2011, and the AGM is due to be held 25-6th Sept-12.

5. USER REPRESENTATIVES REPORT

i) Spectroscopy

No feedback from Spectroscopy users.

ii) Surfaces & Interfaces

No issues were raised, however there were favourable comments especially regarding the ongoing improvements on I07.

iii) Engineering

I15 - The comment was made that the beamline needs to have laser heating functionality available to be competitive. A PDRA is now in place to drive this forward.

It was requested that Diamond Anvil Cells be made available for users. Trevor replied that the intention was to provide them, but Diamond needed to investigate the optimum solution. Once a decision is made, the information would be made available on the website.

Action: Trevor Rayment & Sue Judge

It was likely that help would also be needed loading the cells until Users were more experienced in the process.

I11 – The point was made that the upgrade to the beamline is welcomed, however the announcement that the beamline would not be available in the next AP was made quite late.

I12 – There was a suggestion, that due to the broad nature of the science, I12 should have its own review panel. Trevor responded that I12 had a good number of representatives on the panel, however suggestions for representatives were always welcomed.

It was also noted that I12 was highly oversubscribed, and the question was raised whether options could be pursued for a new beamline or sidestation?

Trevor replied that another beamline was unlikely due to the cost (c. £8M) however Diamond was pursuing the construction of DIAD which may help, however this is a slightly different science area. It was agreed that Diamond would look at ways to improve the set up time on I12 and look at ways to make scheduling more efficient.

Action: Trevor Rayment

Tomography data size, storage and analysis are a challenge for this beamline. Trevor replied that work is continuing to develop the software and the period of employment of a contractor has been extended to help with this aspect.

The question was raised if Diamond could interact with other facilities to benefit from open sources developments. It was suggested that this is reviewed with the beamline scientist in the first instance. Additionally a review of the Data acquisition and analysis systems by an external panel is being held in the next month. It was agreed that a summary presentation should be given at the next DUC.

Action: Trevor Rayment/Bill Pulford

As part of this review, a user questionnaire will be circulated. It was requested that DUC representatives completed the questionnaire and encourage others to as well.

iv) Materials

The comment was made that the controls side was going well, and it would be great if this could continue. There have been efficiencies by using common software on Imaging/I12 beamlines, and this will also be used on B16 if appropriate.

v) Soft condensed matter

Overall feedback was that the beamlines were working well. Josep Sule-Suso made a request that it would be helpful to have access to Raman equipment whilst using B22. There are

facilities at Diamond for Raman, e.g. I18 lab, however co-scheduling of the eqpt with beamtime would be difficult.

Karen Edler suggested that the link to the lab eqpt page could be included in the proposal call, to encourage people to ask for both.

Action: Sue Judge

Keith Meek raised some issues regarding the software on I22 being temperamental, particularly SDA. The preview version of the software was not very user friendly, making it difficult to extract/reduce data, and consequently delaying publication.

Nick replied that Dawn 1.0 is now functional, and many of these issues have been improved. However further effort was needed to improve the software, and this was in progress.

vi) MX

In general feedback from users had been positive. There was some discussion around extending beamtime if it becomes available at short notice. Diamond's process is first to go the reserve list, however if they are not able to attend, then beamtime can be extended, but there may not be a lot of notice.

6. MACHINE UPDATE REPORT

Richard Walker gave a presentation to update the DUC on developments and performance of the machine.

Some discussion followed on the cause of the recent increase in trips, however no pattern has been found.

7. PHYSICAL SCIENCES REPORT

Trevor Rayment gave a presentation to update progress on the Physical Sciences beamlines.

The comment was made that Laser heating needs to be a priority for I15. Additionally Diamond was encouraged to consider the long term plan, as beamlines are likely to have a 10-15 year lifetime.

Trevor replied that options are being considered where appropriate e.g. new IDs as well as improvements to the Machine. Developments that make existing beamlines e.g. I11 or I19 more productive are also being pursued.

8. LIFE SCIENCES UPDATE

Dave Stuart gave a presentation to update progress on the Life Sciences beamlines.

9. FEEDBACK FROM VILLAGE COORDINATOR BREAKOUT SESSIONS

i) Macromolecular Crystallography MX

To simplify the dewar shipping process and remove the need for user claims, the suggestion was raised that DLS could have an account with a courier that users could directly charge their shipping costs to. Gwyndaf agreed to discuss this with Sue and determine a way forward.

Action: Gwyndaf Evans

BAG training could be utilised to make users more aware of hardware and software developments on the beamline. Potentially these could be increased to 3/yr.

At the SR User meeting, minutes were made of the MX discussion session. It would be helpful if this could be repeated at subsequent meetings and distributed to the PIs.

Clarification was requested if totally remote access was possible on all scheduled beamtime? Gwyndaf replied that yes this was the case, but it needs to be announced. Additionally procedures need to be reviewed to ensure that it is clear between the User Office and the EHCs whether the beamtime is remote or not.

Action: Gwyndaf Evans

- ii) Materials
- iii) Engineering

A suggestion was made that a YouTube training video could be made demonstrating how to load the Diamond Anvil Cells. This could be viewed before coming for beamtime. Additionally it could be extended to other things like adjusting the mono on I12.

It was suggested that USB3 interface for the Data dispenser would be helpful. Fred reported that there was currently a hardware issue regarding use of USB3 with the data dispenser and it also required an upgrade to Redhat 6. Both issues are being investigated, and upgrades would be made.

iv) Soft Condensed Matter

Nick reported that there had been more discussion on lab eqpt and the use of Raman facilities. In order to plan the layout of the labs, more info is needed on I21. The CDR is currently scheduled for Oct which should help.

The software issues raised earlier would be discussed offline between Keith/Nick. There had been no issues raised about the software on B22/23.

v) Surfaces and Interfaces

Both Pagona and Karen had e-mailed the users, with positive comments returned but no issues raised. They will put a poster on the operational beamlines with their contact details to see if more feedback is raised by users during their beamtime.



A discussion followed on eLog. Currently it is not used uniformly across the beamlines, and is mainly used by beamline scientists. Karen said it would be useful for users but then they need to be able to access the system from offsite, otherwise they can't do anything with the information. Andy agreed that it was time to review the current use and functionality of eLog.

Action: Andy Dent.

Dave gave a demonstration of the recent app developed for IspyB. This could be extended to other beamlines e.g. SAXS. The point was raised that an Android app would also be needed.

vi) Spectroscopy.

Spectroscopy – no issues to report.

10. USER OFFICE REPORT

Sue Judge gave a presentation to update progress in the User Office.

Bill reported a comment from a collaborator that they were pleasantly surprised at the quality of service compared to other facilities for hostel/catering etc.

There appear to be a number of false fire alarms at Ridgeway house e.g. caused by Steam from kettles. Sue agreed to obtain some statistics on the incidence. **Action: Sue Judge**

Dave Lawson raised the point that the BAG PI is put down as the team leader, even if they are a remote user for the expt. It would be preferable if someone who will be on site for the expt is the team leader. Sue replied that you can add an alternative contact to be team leader and they will consequently fill in the end of expt form, just contact the User Office with the details.

The New User Administration System (UAS) Project was discussed. More Users had volunteered at the SRUM to be involved in the project. There was some discussion as to whether a sample was a component or a system. This needs to have clarification in the software and also needs to have some context specific help.

Samples can be saved at any point without the system declaring the content "invalid". To minimise repetition, samples can be copied, and previous ones retrieved.

Sue agreed to set up the access for DUC members to view the software developed so far, and feedback would be welcomed via the link at the top of the screens

Action: Sue Judge and DUC members

11. SR User Meeting

Attendance at the recent SRUM increased to 246 people of which 150 were external. There were 7 delegates and also 9 speakers from outside the UK. At this point we are reaching capacity for holding such an event on site. There are no plans for the lecture theatre to grow (currently 197 capacity). Additionally the range of satellite meeting rooms is reaching



capacity. We should be able to hold next year's meeting on site, but will have to rethink for 2014.

Feedback on the meeting was generally positive, however there was some criticism over the timing of the first session, and that contingency should be built in to the timetable. It was felt that the Young investigator presentation was a good idea.

Isabelle requested feedback from the DUC on two areas:-

- 1- Considerations regarding space and future location
- 2- More input on the science programme and possible key note speakers.

Action: DUC Members

There was a suggestion that topics for the MX discussion session could be requested at registration.

The 2013 meeting will be held 4-5th Sept. Organisation will start in Nov. Isabelle will issue a call for workshop topics, and ask users to send ideas in. These will then be circulated to the DUC for comment.

12. AOB

Membership of the DUC was discussed, in that turnover needs to be 4 people /year. As some members were not present at the meeting, Bill agreed to discuss this offline and confirm which DUC members will be stepping down after this meeting.

Action: Bill Clegg.

An election will then be held.

Action: Kathryn Poulter

Bill thanked everyone for their contributions if they were not present at the next meeting. Martin asked if everyone was happy with the election process. There were no issues raised.

Bill thanked the presenters for making their presentation available in advance of the DUC. The next meetings of the DUC will be in March and Sept 2013, and possible dates will be established by Doodle Poll.

Annex A: New Actions

Number	Action	Actionee	Target Completion Date / Status
5.4	To restructure the MX village web pages – Beta release end Oct-12.	Gwyndaf Evans	End Oct
6.8	To circulate a plan for the Soft Condensed Matter village labs, and request input from the user community	Nick Terrill	Next meeting
7.1	To update the DUC on the details of CALYPSO following the October ESUO meeting.	Bill Clegg	End Nov
7.2	To make Diamond Anvil Cells available to users of I15.	Trevor Rayment & Sue Judge	Next meeting
7.3	To review the scheduling on I12 to improve efficiency in set up time.	Trevor Rayment	Next meeting
7.4	To give an update on the Data acquisition and analysis systems at the next meeting.	Bill Pulford	Next meeting
7.5	To include the link to the lab equipment page with the proposal call, to encourage users to apply for both.	Sue Judge	End October
7.6	To review the method of shipping dewars and agree way forward.	Gwyndaf Evans	Next meeting
7.7	To confirm to users whether totally remote access is possible on all scheduled beamtime.	Gwyndaf Evans	End October
7.8	To review the use and functionality of eLog	Andy Dent	Next meeting
7.9	To obtain statistics on the number and nature of false alarms at Ridgeway house.	Sue Judge	Next meeting
7.10	To set up access for DUC members to the New UAS software developed so far so that they can provide feedback.	Sue Judge	End Oct.
7.11	To provide feedback to Isabelle on considerations for future SRUMs regarding space and location, and provide input on the science programme and possible key note speakers.	DUC members	End Dec
7.12	To agree membership of the DUC for the next meeting	Bill Clegg	End Nov
7.13	To organise an election for DUC members	Kathryn Poulter	Next meeting

Annex B: Completed Actions

Number	Action	Actionee	Status
5.4	To restructure the MX village web pages for the next DUC in Sept -12.	Gwyndaf Evans	Next meeting
6.1	To clarify to users that the details of publications entered into the Publications database, which are not yet in the public domain, are not visible externally.	Sue Judge	This will be in the User Guide on the website, and additionally in the “latest news” section.
6.2	To contact Bill to volunteer to be listed as a country rep for the ESUO.	DUC Reps	Complete. Pagona has volunteered.
6.3	To highlight the details for ordering pucks from the supplier on the website.	Sue Judge	Complete. MX website has been updated. Will also be mentioned in the “Latest News” section as in 6.1.
6.4	To review the protocol for linking into the water cooling system.	Andy Dent	We now have a heat exchanger in EH1 and EH2, capable up to 8kW. It separates the user circuit from the raw cooling water circuit.
6.5	To review the status of recording commands and motor positions functionality, and ensure that this is documented and communicated.	Steve Collins	Complete
6.6	To publish the guidelines for the PRP on the website.	Sue Judge	Now published on the web.
6.7	To review the status of the data dispenser and report back to the next DUC meeting.	Gwyndaf Evans	Next meeting
6.8	To circulate a plan for the Soft Condensed Matter village labs, and request input from the user community	Nick Terrill	Ongoing - Information gathering in progress, no firm plans as yet to discuss. Will keep DUC reps informed.
6.9	To review whether the secretary to the PRP should be changed to a support scientist from the relevant village.	Trevor Rayment	Complete for May-12 meeting.

6.10	To provide a report on the new User Administration System project.	Sue Judge	To be updated in the meeting.
6.11	To review whether the online safety test can be taken when using the offline facilities only.	Sue Judge	Process has been revised so that the UO deals with registration for offline facilities too, i.e. similar to beamline process.