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20th MEETING OF THE SNX COUNCIL

Grenoble (France)
Thursday 28th and Friday 29th November 2013

SNX Council Meeting

Mr. Chairman reported that Helmer FJELLVAG and Radovan CERNY apologized for their not being able to attend this meeting. Serena MARGADONNA has been appointed by the Norwegian Steering Group to be the Deputy of Helmer FJELLVAG.

1. Approvals and Review

[G. Chapuis]

1.1 Approval of the Agenda

After discussion, the Agenda will be treated in the following order, namely:

Point No. 6. On Thursday morning

Thursday afternoon will start with point No. 1.

Under point 4, the order will be point 4.2., then point 4.3. and point 4.1 will be treated last.

Under point No. 5, addition of three sub-points:

point 5.1. Signature of the mandate from Audict Fiduciaire,

point 5.2 SNX resolutions,

point 5.3. Collaboration with MaxLab.

It is decided to keep the numbering identical to previous meetings in order to have coherent minutes.

The order and addition to the Agenda, **Appendix No. 1**, were unanimously approved.

1.2. Approval of the minutes of the 19th SNX Council

The minutes of the 19th SNX council meeting were approved unanimously.

2. Financial Matters

2.1. Income and Spending 2013

[C. Heurtebise]

See presentation and documents e-mailed to SNX participants in **Appendix No. 2.**

2.2. Budget 2014

[V. Dmitriev]

See presentation and documents e-mailed to SNX participants in **Appendix No. 3.**

3. Report of the SNX Chairman

There was no report from the SNX Chairman.

4. Report of the SNX Operations

4.1. SNX and A-SNG operations (News on B/L transfer etc.)

[V. Dmitriev]

See Vladimir DMITRIEV's presentation in **Appendix No. 4.**

- Beam Time Statistics

Regarding BM1A, Vladimir DMITRIEV suggested to have, as an experimental procedure, proposals submitted 3 to 4 times a year as data is now collected in a very short time.

20.4.1. SNBL team to come with a precise documentation on submitting proposals to BM1A outside the submitting dates of 1st March and 1st September. Vladimir DMITRIEV. Deadline 21st SNX Meeting.

- Beam Line Review by ESRF (2009-2013)

The review took place on 6th and 7th November 2013. ESRF Beamline Review Report, see **Appendix No. 5.**

- Increase the visibility of the SNBL

- Transferring BM01B to vacant BM18

Vladimir DMITRIEV explained that the ESRF machine upgrade is highly likely to happen. In this case, SNBL will not be able to continue running both beamlines on the same port. The following possibilities should be considered:

- BM01B is to be transferred to BM18, BM01A and / B will continue as 2 beamlines
- BM01A / B will be operating on the same port, this is the equivalent of one beamline
- one beamline is to be closed.

Magnus RONNING informed the committee that the project is under discussion, but this procedure is quite complex because of the different groups involved in Norway. The financial participation from each funding party is delaying the decision. The overall opinion is that BM18 is considered as necessary. Bjorn HAUBACK confirmed Magnus RONNING's explanations.

Cecilie MATHIESEN asked what would the consequence be if the decision is not taken in the near future. Vladimir DMITRIEV reported that ESRF should have an answer before next ESRF Council in May 2014.

Gervais CHAPUIS stated that the committee supports the transfer to BM18 .

Martin STEINACHER proposed that during the next SNX meeting should be discussed how to address the medium to long-term future of SNBL.

4.2. Beamline A: Operations

[P. Pattison]

See Philip PATTISON's presentation in **Appendix No. 6.**

- Diffraction platform BM01A

- Experiments which exploit Pilatus@SNBL

- Collaborative projects

Collaborative projects with user groups :

1. Observation and modelling of diffuse scattering
2. Improved capabilities for X-ray / Optical / Raman spectroscopy
3. Development of combined diffraction & X-ray fluorescence
4. X-ray scattering from thin films & reconstruction software
5. Combined neutron and x-ray single crystal diffraction

Collaborating projects with other institutes

1. Development of 3D reconstruction for diffuse scattering
2. Joint development of cryogenics for experiments at 10K
3. Sharing of beamtime and other resources
4. Joint projects for developing direction techniques
5. Measurement of diffuse scattering under electric field

- Long term developments

4.3. Beamline B: Operations

[H. Emerich]

See Hermann EMERICH's presentation in **Appendix No.7.**

Last 6 months of operation

- No major breakdowns of beamline components
- Failure of some detector (components)

Solid State Detector Status

Detector was / is out of operation due to a failure of our old acquisition hardware. The replacement cost is over EUR 40,000, included in the emergency maintenance budget.

PDF Present Situation

Two official exploratory PDF experiment took place, one involving a project with Helmer FJELLVAG and one with Magnus RRONNING. The preliminary results look positive.

The ESRF 2D integration software PyFai is now ready to be used.

First results indicate that we may be able to do PDF fast measurements.

Current Status of the PDF on SNBL:

Both hard and software improvements are needed – New Acquisition of Software

- . calibration procedures (currently around 1.5 days) → Widely improved
- . easier installation of the set-up → Done
- . Shielding (to reduce background) → Still to be done
- . Beamstop → Improved
- . Harmonics → Not a problem at 40KeV
- . Shutter → Done
- . Focusing → Working
- . Detector cooling → Under discussion
- . PyFai → Done
- . Signal to noise → Investigation underway
- . Reduce time per sample → Done
- . In-situ possibilities → → To be done in practice

The aim is to build up know-how and make a streamlined setup with well documented capabilities and limitations.

2D Dectector Status

Successive images show unreproducible (horizontal) stripes which lead to "Moiré pattern" like structure in final images, this issue has to be solved in collaboration with the company.

Some" Exotic" Experiments:

- "3 laser experiment" :
Embedding Azobenzene into MOFs to study their switching behaviour
- First Reflexafs Measurements
- Experiment on Sodium Batteries

Why do we need BM 18

Hermann EMERICH showed the actual state of BM18 and gave a list of the tasks/installations to prepare the move to that beamline.

Summary of the Arguments "for" BM18:

- ESRF (machine) upgrade will reduce horizontal beam spread to a point where BM1A and BM1B cannot co-exist anymore
- Present status still leads to breakdowns and instabilities which in some cases affect both stations
- Further beamline development is very limited in this present configuration
- Modern equipments need more (bigger) in-situ equipment for which we do not have the room anymore
- BM18 is the last free ESRF Port

Pending a decision by the Russian Federation to join the ESRF, Martin STEINACHER reported that the ESRF-Council decision on Phase II of the Upgrade Programme might take longer than originally planned. This "new" upgrade would impose a shutdown of around one year.

5. Any other business

5.1. Signature of the Mandate to Audict Fiduciaire

The mandate was presented together with its translation into English. The signature of this mandate is approved unanimously.

Mandate from Audict Fiduciaire, and translation into English, see **Appendix No. 8**.

5.2. New resolutions

Two new resolutions were added, namely resolution 20/5 Exceptional Reimbursements and 20/6 SNBL / DUBBLE

Resolutions from 12th to 20th SNX meeting, see **Appendix No. 9**.

Exchange shifts SNBL / DUBBLE, see **Appendix No. 10**.

5.3. Collaboration with MAX-Lab.

Christoph QUITMANN suggested to have a presentation of MAX-Lab during one of our next SNX Meetings.

SNX members approved this project. This could be done during next meeting in Lausanne in May 2014. Gervais CHAPUIS will fix the appropriate date together with Christoph QUITMANN.

6. Discussion of Proposals**[Shepherds]****6.1. Beamline Scientist's Technical Assessment of Proposals and Shepherd's Assessments****6.2. Assessment Committee –allocation of beamtime****BM1A**

Total number of shifts available :	201
Shifts for ESRF	66

<u>Shifts available for discussion :</u>	<u>135</u>
Shifts for LTP	- 15

Shifts for discussion : 120

Total Shifts requested : 155 in 12 proposals from Swiss (5) and Norwegian (7) Institutes.

All proposals with Grades 1,2,3,4 and 5 are allocated beamtime.

BM1B

Total number of shifts available :	202
Shifts for ESRF	67

<u>Shifts available for discussion :</u>	<u>135</u>
Shifts for LTP	- 15
DUBBLE (15 + 9)	

Shifts for discussion : 120

Total Shifts requested : 279 in 21 proposals from Swiss (7) and Norwegian (14) Institutes.

All proposals with Grades 1, 2, 3 and 4 are allocated beamtime.

Strong recommendation if given to and by the shepherds to use the full scale of grading.

Allocation of beamtime, see **Appendix No. 11.**

7. Summary of actions to be taken

[C. Heurtebise]

20.4.1. SNBL team to come with a precise documentation on submitting proposals to BM1A outside the submitting dates of 1st March and 1st September. Vladimir DMITRIEV. Deadline 21st SNX Meeting.

8. Concluding remarks

[G. Chapuis]

21st SNX Meeting. This meeting will take place on Monday 26th and Tuesday 27th May 2014, in Lausanne. To be organized by Gervais CHAPUIS.

22nd SNX Meeting. This meeting will take place on Monday 24th and Tuesday 25th November 2014, in Grenoble. To be organized by Chantal HEURTEBISE. **The dates can now be changed to Monday 17th and Tuesday 18th November 2014, or Tuesday 18th and Wednesday 19th November 2014. To be confirmed by participants.**

23rd SNX Meeting. This meeting will take place in May / June 2015, in Grenoble. Dates to be decided in May 2014. To be organized by Chantal HEURTEBISE (Monday 25th May 2015 : lundi de la Pentecôte)

Gervais CHAPUIS thanked everyone for this very nice and efficient meeting. Mr. Chairman thanked the Norwegian partners for their decision to come for BM18

At the occasion of a short meeting with Martin Steinacher, the outgoing ILL Director Andrew Harrison and the ILL Associate-Director for Science - Helmut Schober - congratulated the SNBL for its contributions to outstanding research and high-impact publications at the ESRF and wished the SNBL all the best for a bright future.

9. SNX Delegates Meeting

No delegate meeting took place

List of Appendices, showing the page number on which they appear in the minutes.

Appendix A available only to SNX Members and Observers

Appendix B available to all

Appendix No.1.B.	P. 2. Approved Agenda
Appendix No.2.A	P. 3. Income and spending 2013
Appendix No. 3.A	P. 3. Budget 2014
Appendix No.4.B.	P. 3. SNX and A.SNG operations
Appendix No. 5.A.	P. 3. Beamline Review by ESRF
Appendix No. 6.B.	P. 4. Beamline A: operations
Appendix No.7.B.	P. 5. Beamline B: operations
Appendix No.8.A.	P. 6. Mandate Audict Fiduciaire
Appendix No.9.A .	P. 6. Resolutions
Appendix No.10.A.	P. 6. Exchange of shifts SNBL / DUBBLE
Appendix No.11.B.	P. 7. Allocation of Beamtime