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## 23rd MEETING OF THE SNX COUNCIL

Grenoble (France)  
Tuesday 26<sup>th</sup> and Wednesday 27<sup>th</sup> May 2015

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### SNX Council Meeting

Mr. Chairman welcomed everyone. Helmer FJELLVAG could not attend the meeting, Gervais Chapuis chaired the meeting. Kenneth KNUDSEN is the substitute for Bjorn HAUBACK, Radovan CERNY is the substitute for Piero MACCHI

#### 1. Approvals and Review

[G. Chapuis]

##### 1.1. Approval of the Agenda

Points 5.1 and 5.3 will be dealt with before 4.2

After Discussion, the Agenda was unanimously approved, see Agenda, **Appendix No. 1.**

##### 1.2. Approval of the minutes of the 22nd SNX Council

The minutes of the 22nd SNX Council were approved unanimously.

#### 2. Financial Matters

##### 2.1. Income and Spending 2014, audit accounts 2014

[C. Heurtebise]

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

Documents e-mailed :

- Administrative report – Year 2014
- Income 2014 – Baseline and outside Baseline
- Income 2014 – Outside Contract
- Reserves as of 31<sup>st</sup> December 2014
- Spending “compte d’exploitation as of 31<sup>st</sup> December 2014”
- Orders as of 31<sup>st</sup> December 2014
- Maintenance and Running Expenses – Budget 2014
- Auditor’s accounts + report

The accounts for year 2014 were approved unanimously.

## 2.2. Income and spending 2015

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

Documents e-mailed :

- Administrative report as of 30<sup>th</sup> April 2015
- Income 2015
- Spending "Compte d'exploitation as of 30<sup>th</sup> April 2015
- Orders as of 30<sup>th</sup> April 2015
- Maintenance and Running Expenses – Budget 2015
- Reserves as of 30<sup>th</sup> April 2015

## 2.3. Updated table income/spending (transfer of beamline) [V.Dmitriev/C. Heurtebise]

See document e-mailed, in **Appendix No. 4**.

- Follow-up Income/Spending transfer of beamline.

## 2.4. Board Meetings SNX Foundation + A SNG + A SNX

The meetings took place and the Minutes were all signed.

## 3. Report of the SNX Chairman

**Gervais CHAPUIS** reported that he approached the Faculty of Basic Sciences at EPFL that is providing one third of a position currently attributed to Philip Pattison. The role of Phil is important to promote the use of synchrotron among the EPFL scientists and this role should be continued after Phil's retirement. A series of documents were prepared for the Dean of Faculty including Phil's job description, a list of publications where EPFL participants are included in the list of authors and the latest Activity Report (2013/2014) in order to convince the Faculty to continue to support the SNBL's.

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## 4. Report of the SNX Operations

### 4.1. SNX and A-SNG operations

[V. Dmitriev]

See **Vladimir DMITRIEV's** presentation in **Appendix No.5**.

Presentation:

Beamtime statistics

Administrative Actions :

Workshops:

- a) Big Data For Small Molecule Crystallography (April 13-14 April 2015)
- b) « SNBL - Planning for the next decade » 28-29 May 2015

**4.2. Beamline A: Operations****[P. Pattison]**

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

Diffraction platform BM01A – Technical progress. (software, hardware)

Examples of publications from BM01A:

- ◆ Low-Temperature data collection 10K + laser excitation - University of Geneva group
- ◆ Developments in hydrogen storage : “*Tailoring the Properties of Ammine Metal Borohydrides for Solid-State Hydrogen Storage*”
- ◆ Hydride chemistry :  
“*Crystal structure and in-situ decomposition of Eu(BH<sub>4</sub>)<sub>2</sub> and Sm(BH<sub>4</sub>)<sub>2</sub>*”  
Synchrotron powder diffraction from Petra/DESY + MAXlab + SNBL  
Serial snapshot crystallography for materials science with SwissFEL  
Multi crystals + single shot = solved and refined structure

Collaborating projects with user groups

- ◆ Routine combination of X-ray / optical / Raman spectroscopy  
SNBL / Uni Oslo – Coordinator – K.K. Andersson
- ◆ Software development for kappa-goniometer on PILATUS@SNBL  
SNBL / Uni Stavanger – Coordinator – H.B. Larsen
- ◆ Simulation of FEL beam characteristics using SNBL  
SNBL / ETHZ / PSI
- ◆ Software development for 3D display of diffuse scattering  
SNBL / NTNU Trondheim – Coordinator – R. Mathiesen

Collaborating projects with other institutes

- ◆ Sharing of beamtime and other resources  
Collaboration agreement with DUBBLE CRG
- ◆ Joint projects for developing diffraction and EXAFS techniques  
MoU with MaxIV laboratory
- ◆ Measurement of diffuse scattering under electric field

## XMAS CRG at ESRF and University of Manchester

- ◆ How to handle BIG DATA  
SNBL & ESRF

### Long Term Developments

Planning for operation of BM01A after BM01B moves in 2016

### BIG DATA

What needs to be done :

- ◆ Computation tools for analysis, data reduction and feature recognition *next to the experiment*
- ◆ Post-processing *reconstruction, simulation and visualization*
- ◆ Proper *data storage*, including file format, image type and metadata

Philip PATTISON was thanked for his presentation.

### **4.3. Beamline B: Operations**

**[H. Emerich]**

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

Beamline Status

SNB Overall Performance

Detector Stability

PDF Status

Improvements and Changes

BM 31

Status of Planning and Timetable

Outstanding Issues

Hermann Emerich was thanked for his presentation.

## **5. Any other business**

### **5.1. SNBL - MAX IV see request from Martin Steinacher point 5.1. from 22nd SNX Meeting**

(see Martin's comments in 22<sup>nd</sup> SNX Minutes : **Martin STEINACHER** asked this item of the Agenda to be included at our next SNX Meeting. In view of the next SNBL funding period 2017-2020, it is important to get a clear picture what the possible additional costs would be to execute SNBL experiments at MAX IV during the ESRF long shutdown.)

Shutdown period of ESRF : The user programme will be put on hold from end 2018 to June 2020 while the accelerator is dismantled and the new source installed and commissioned.

**Vladimir DMITRIEV** reported as follows :

It is not known how many shifts MAX IV will be willing to grant SNBL. It is not known how many users will be interested by the possibility of carrying out experiments at MAX IV during the period of shutdown at the ESRF.

However, an estimation of the costs to execute SNBL experiments at MAX IV would be as follows : for the visit of 2 staff members to MAX IV (travelling, transport of SNBL equipment to MAX IV, hotel and so on) this could represent around EUR 4'000 to 5'000 per visit for 2 to 3 projects. Moving equipment from SNBL to MAX IV presents the risk of damaging the equipment.

The ideal would be to have the users cumulating data before the ESRF shutdown and then carry out the analysis during the period of shutdown.

The savings for SNBL will be mainly on energy and consumables and there will be no post-docs during that period.

Some experiments might be carried out at the SLS. Users will have to submit their proposals directly to SLS.

## **5.2. COF 2 – Report No. 2 + Prioritized list**

**[G. Chapuis]**

Final Report COF2 meeting, see in **Appendix No. 8**.

The participants of the COF2 meeting were warmly thanked for the work done. The prioritized list has been included in that report (see pages 4 and 5).

## **5.3. Follow-up on the transfer of beamline BM01B**

**[V. Dmitriev]**

Reminder (see Minutes 22<sup>nd</sup> SNX Meeting) :

Human resources estimate:

*Administrative actions: Vladimir DMITRIEV*

*Optics responsible: Philip PATTISON*

*Infrastructure and move, responsible: Wouter VAN BEEK*

*Reliability BM01B: Hermann EMERICH*

*Project coordinator CRG office: Eric DETTONA*

*Technical drawings of beamline components : Instrument Design Technology*

Time Table:

<i>Conceptual Design Report</i>	<i>End October 2014</i>
<i>Technical Design Report</i>	<i>January 2015</i>
<i>Implementation TDR</i>	<i>1st half 2015</i>
<i>Ordering new beamline components</i>	<i>Spring 2015</i>
<i>Construction works</i>	<i>2nd half 2015</i>
<i>Move from BM01B to BM31</i>	<i>Winter/Spring 2015/2016</i>
<i>3 months commissioning</i>	<i>Winter/Spring 2016</i>
<i>Start USM</i>	<i>Mid 2016</i>

The above schedule is still valid.

The contract with ESRF has been signed in January 2015.

Lead hutches should be ready in July this year (week 35 / 36)

The total cost given by ESRF technical services : EUR 745'800

Overall cost estimation of the BM31 project = total CHF 1'399'470 (including VAT and ESRF top over).

**Gervais CHAPUIS** raised the possibility of submitting a joint request to the National Science Foundations of Switzerland and Norway to get additional funds to renew some of the equipment.

#### 5.4. Exchange shifts SNBL / DUBBLE

[C. Heurtebise]

See document e-mailed in **Appendix No. 9**.

## 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 :	216
Shifts for ESRF	- 72

Shifts available for discussion :	144
Shifts reserved (LTP+misc backlog)	- 36

Shifts for discussion : **108**

Total shifts requested: 143 in 12 proposals from Swiss (8) and Norwegian (4) Institutes.

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

#### BM1B

Total number of shifts available :	216
Shifts for ESRF	- 72

Shifts available for discussion :	144
Shifts for LTP	- 15

Shifts for discussion : **129**

Total shifts requested: 153 in 10 proposals from Swiss (4) and Norwegian (6) Institutes.

Proposal with Grade 1, 2, 3, 4, 5 and 6 are allocated beamtime.

Allocation of beamtime, see **Appendix No.10**.

## 7. Summary of actions to be taken

[C. Heurtebise]

No actions.



## 8. Concluding remarks

**24th SNX Meeting.** This meeting will take place on Tuesday 24th and Wednesday 25th November 2015, in Grenoble. To be organized by **Chantal HEURTEBISE**.

**25<sup>th</sup> SNX Meeting.** This meeting will take place in May / June 2016. Dates to be fixed by e-mail exchanges. (**Chantal HEURTEBISE**). Suggested dates : Wednesday 25th to Friday 27th May 2016, place to be decided at the next meeting at the latest. **Gervais CHAPUIS and Helmer FJELLVAG to suggest a place in Norway.**

**26th SNX Meeting.** This meeting will take place in Grenoble, in November 2016 (suggestions = week 47, from Tuesday 22 to Friday 25th November). Dates to be decided once the dates of the ESRF council are known.

**Gervais CHAPUIS** thanked all the SNX participants for their very helpful contributions to this meeting. SNBL staff is warmly thanked for the social program organized for this meeting in addition to their continuing professional activities and support.

## 9. SNX Delegates Meeting

Resolution 20/5 amended.

See Resolutions and Delegates Meeting in **Appendix No.11**.

**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.2.	Income and spending 2014 – Audit Accounts 2014
Appendix No.3.A	P.3.	Income and spending 2015
Appendix No.4 A	P.3.	Follow-up income/spending transfer of beamline
Appendix No.5.B.	P.3.	SNX and A.SNG operations
Appendix No.6.B.	P.4.	Beamline A: operations
Appendix No.7.B.	P.5.	Beamline B: operations
Appendix No.8.B.	P.6.	COF2 Report – Final version
Appendix No 9.B.	P.7.	Exchange shifts SNBL / DUBBLE
Appendix No.10.B.	P.8.	Allocation of beamtime
Appendix No.11 A	P.9	Resolution and Delegate Meeting
Appendix No.12.A.		Duration and modalities SNX Members Mandate