SPOTLIGHT ON

Library and SOLEIL User Office:
one group, three missions

With five permanent staff, four working full time and helped by two young apprentices, the so-called BBUS (Bibliothèque et Bureau des Utilisateurs de SOLEIL), run by the Experimental Division and directed by Frédérique Fraissard, assures essential missions that follow and punctuate the scientific life of SOLEIL.

The BBUS team. From left to right: Anaïs Humblot, Jean-Marc Lucacchioni, Sylvie Koguc, Sylvie Pavan, Frédérique Fraissard and France Pochard.

Library

As well as managing all operations related to documentation (fifty journals, electronic and / or paper made available by the library), the librarian, Jean-Marc Lucacchioni, is responsible for compiling all 500 or so publications resulting from experiments carried out at SOLEIL each year.

Articles must, of course, be identified and classified according to the beamline and other SOLEIL groups involved. This sometimes involves true «detective work» leading to SOLEIL scientists or users, and includes a painstaking literature search.
Jean-Marc is also involved in publishing the booklets of submitted contributions to various conferences organized by the group. A good example is all the the book of abstracts for the annual SOLEIL Users' Meeting, one of the major events organized by the BBUS, which annually hosts more than 300 participants. But this conference is not the only scientific event managed by the group.

Scientific events

Each year is punctuated by almost a dozen French or international scientific conferences, organized by the Experimental Division via the BBUS.
At the end of an annual call for candidacy, held from mid-September to mid-October, the events to be organized are selected by the Scientific Directors. The choice is based on creating a balance between subjects to be treated, and also the human resources available. The events are then organized into projects that must be planned and distributed among the managers, Sylvie Koguc, Sylvie Pavan and France Pochard. Faced with an increasing number of events to organize, BBUS has had to seek the help of Jacqueline Lassagne, Assistant to the Scientific Directors.
When an event has been accepted, a whole chain of logistics activities, communication and management has to be put into place to ensure that everything runs smoothly. These different steps and their implementation have evolved over the years toward greater standardization and structuring, in order to gain time, efficiency and to

simplify the work of support groups who work with BBUS.
After nearly ten years of operation and very positive feedback from the scientific organizing committees with which BBUS has worked, the latter has been very successful. Applications are now also coming from outside scientists (in collaboration with SOLEIL scientists) wishing to use the expertise of the BBUS Events group. These events can be located at SOLEIL or outside.
Among the recurring scientific events, BBUS (and mainly Sylvie Pavan) therefore organizes one of SOLEIL's unmissable events, the annual SOLEIL Users' Meeting. The 11th meeting will take place on 21st & 22nd January 2016. It provides an occasion to take stock of the past year, to present current and future projects and, in particular, the opportunity for users to interact with beam line scientists and support laboratories, Sources staff and also SOLEIL management. Its program is developed by the Organization of SOLEIL Users (ORGUES), in agreement with the SOLEIL management. The interface is provided by BBUS at 4 annual meetings. Some of these meetings are also used every two years to prepare and validate the renewal of half of the ORGUES members.
As part of its training program, SOLEIL is also involved in the organization of schools or regular courses such as HERCULES (Higher European Research Course for Users of Large Experimental Systems) or Crystallography Training for Large Facilities (organized every two years). Members of BBUS also undertake the organizational side and management of the participants.

Relations with SOLEIL users: the User Office

SOLEIL receives over 4000 annual user visits. With the possibility of the same user coming several times a year, this represents about 2,200 different researchers each year. These users conduct their experiments on the beamlines (26 available in 2015, 29 by 2017), and sometimes also in one of SOLEIL's support laboratories (biology, chemistry, surfaces, high pressures, and ancient materials. Each year, about 680 experiments are performed and over 1,200 projects registered. Proposals are submitted via the «SUN» dedicated internet register (SOLEIL Users Net), using SUN Set : http://sunset.synchrotron-soleil.fr/sun/), which includes a general guide for users. There are two calls for proposals per year, which deadlines are February 15th and September 15th. SUN Set is the central, single entry portal for the management of research projects submitted to SOLEIL. To harmonize as much as possible the procedures in force between synchrotrons and thus simplify the system for users, the initial goal was to start with an existing tool, while integrating the specific needs of SOLEIL.
After a survey of needs and specifications organized by Frédérique Fraissard, SUN Set was developed internally by the Management Systems Integration Group (ISG) of the SOLEIL Computing Division (mainly Angelique Prevost and Idrissou Chado) based on a tool used at SLS, the DUO. Its potential has regularly been upgraded since the opening of SOLEIL to external users in 2008.
At the outset, SUN Set was used only to register research proposals. Since then, this tool is been used to evaluate these projects and the scheduling of experiments, the management of experimental reports and for end of run report, declaration of experiment, requests to use a support laboratory (one of the specificities of SOLEIL) and the linking of scientific articles submitted for publication to the project from which they came.
So this is a constantly evolving tool. Users' expectations are also taken into account and, for this, Frédérique relies on ORGUES members, enlisted to test and validate the «latest features» offered by SUN Set before they become available to other scientists.
Among the new features already planned are the running of experiments, remote-access data processing and sample tracking: each successive addition following the needs identified for the beamlines.
Once deposited in SUN Set, proposals follow an entire process. They are technically assessed by beamline Managers and then allotted according to subject, under the control of SOLEIL management, to the six Peer Review Committees[1] (PRCs) that evaluate them scientifically. Decisions are taken at face-to-face meetings organized by the SOLEIL Users Office and immediately recorded during the session in SUN Set.

The BBUS team mobilized to welcome the participants of the SOLEIL Users' meeting, in January 2015.

It is then up to the safety group to assign a level of risk to each project (from green to black - black preventing the experiment from taking place, at least without modification). These data are also stored in SUN Set.
Frédérique, responsible for the beam time partition time which is then validated by the scientific management, has to take into account multiple factors (commissioning operations and training, with possible periods of 'exotic' filling of the storage ring that are not suitable for all experiments, etc.). A real headache!
The beam time dedicated to the PRCs (at least 65%) is then divided between them according to demand and after consultation with the beamline Managers, in order to match requested beam time and project.
This volume / beam time quota per PRC is communicated to members of the PRCs before the meetings, held in April and November.
SOLEIL management may decide to give its 5% share of beam time to the PRCs prior to evaluation.
The beamtime reserved for paid access is set after consultation with the Industrial Relations and Valorization Group.
After the PRCs have met, the SOLEIL management validates beamtime allocations, which are then published on SUN Set and communicated to users in mid-May and mid-December.
The beamline Managers then program the accepted experiments and notify the main proposers for the accepted proposals. The latter then carry out formalities prior to their arrival at SOLEIL and once the experiment is over, complete a satisfaction questionnaire ('end of run report') and an experimental report. Finally, they must provide references of any publications based on the results of these experiments.

Two managers, Sylvie Pavan and France Pochard, are at the disposal of users to assist them in these different steps, before and after the experiment, as they follow all the proposals. Sylvie and France divide up the management of the proposals between them, based on the beamlines and SOLEIL laboratories for which they are responsible.

Guaranteeing that the rules developed by the management, in collaboration with ORGUES, are respected, the User Office team aims to simplify access and reduce the difficulties for scientists coming to use the synchrotron.

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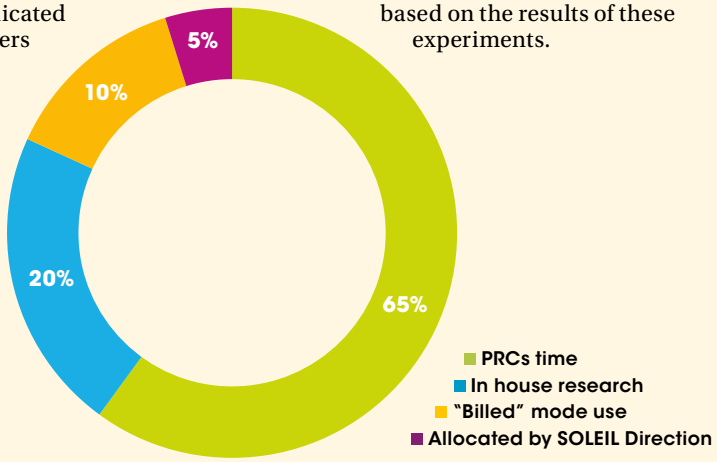

Figure 1: Beam time allocation.

[1]There are 6 Peer Review Committees (PRCs) in total: Diluted material; Electronic and magnetic properties of matter - surfaces and Interfaces; Properties of matter and materials: structure, organization, characterization, development; Chemistry and physical chemistry - reactivity in situ - Soft matter; Biology - health; Ancient materials - earth and environment.
PRC members are appointed by the SOLEIL management for a renewable two-year term. The BUS (User Office) is in charge of organizing the renewal of the members of each PRC. All PRCs are composed of between 9 and 11 members, who between them cover all subfields of the discipline.