

current events

This section carries events of interest to the synchrotron radiation community. Works intended for this section should be sent direct to the Current-Events Editor (s.s.hasnain@liverpool.ac.uk).

Future funding for Australian Synchrotron

The Australian Synchrotron in the Melbourne suburb of Clayton has recently been attracting local media interest owing to the uncertainty associated with its future funding. Reviewing public sector investment in biotechnology, Victoria's auditor-general Des Pearson's report says the synchrotron has 'achieved benefits in line with the original expectations of the government'. Victoria has put AUD 207.2 million into the Clayton facility and the federal government has contributed AUD 115 million, but funding beyond June next year is uncertain. A project championed by former premier John Brumby, the synchrotron was given an unusual corporate structure and has no commonwealth representation on the board. The facility went through a crisis of governance in 2009–2010. Synchrotron director Keith Nugent said the auditor-general's 'reasonably positive' report, tabled recently, should help the facility make its case for more money. Professor Nugent said that, despite the uncertain outlook, the turnover in scientific staff at the synchrotron had been very low. 'I think they believe in the future of the facility', he said. 'Morale is high and the scientific activity is world-leading.'

Canberra has been putting pressure on the Victorian government about its funding responsibilities to the AUD 206 million synchrotron to continue to play a major role in its funding. Science and Research Minister Kim Carr told Senate that the Australian Synchrotron, which runs out of money from July next year, was a 'state facility requiring ongoing state investment'. Senator Carr said the Commonwealth, which originally contributed AUD 115 million in capital funding, had an interest in the facility but 'not to the extent that we absolve the state of its own responsibility'. The facility needs at least AUD 156 million over five years to cover its running costs beyond 2012 and, so far, neither the state or federal budgets have provisioned for the amount. It is clear that the situation needs to be resolved swiftly so that the Australian Synchrotron, which is in its prime, can continue to make its contribution to international science and compete with well resourced synchrotrons in Europe, USA and Japan.

ESRF upgrade programme enters new phase

On 29 November 2011, a ground-breaking ceremony marked the start of the civil construction work for a major ESRF building extension. Starting early in 2013, six new beamlines and endstations will be set up in these new buildings. In addition, many user support laboratories and ESRF as well as CRG staff will also move into new premises in spring 2013. The new buildings will eventually host nine long new beamlines.

The ground-breaking ceremony brought together ESRF staff along with the members of the ESRF Council and representatives of local authorities. Four officials hit the ground with a pick, at a location close to the existing experimental hall: Francesco Sette, ESRF Director General; Geneviève Fioraso, Member of French Parliament and Deputy Mayor of Grenoble; Jean Moulin, Chairman of the ESRF Council; and Alexandre Butlewski, Vice-President of GINGER, the prime contractor for the new buildings. As their pick hit the ground, the vibrations of the soil were measured with a sensitive probe



Artist's view of the ESRF in 2013 with the two new large experimental halls and the laboratories and offices building adjacent to the hall on the left. [Credit: Sud Architectes/ESRF.]

normally used to monitor vibration levels at the beamlines and in the storage ring; thus it is clear that care will need to be exercised in the construction phase while the users continue to collect data. As vibrations and other disturbances cannot be avoided, the ESRF needed to be closed for user operations for some time during the construction works. This closure is currently limited to four months in addition to the regular summer and winter shutdowns.

The building programme comprises two new experimental halls adjacent to the existing hall with a floor surface of 4500 m², along with about 4000 m² for new laboratories and offices. Most of the latter will be located in a three-storey building adjacent to one of the two new halls. Finally, a new satellite building for the very long new nano-imaging beamline ID16 will be built on the opposite side of the ring. The new buildings, surrounded by ecological landscaping, also comprise a 200 m² cafeteria and social space open 24 h and seven days a week.

Particular care and effort has been put into the design of the concrete slab of the new experimental halls and the thermal stability where the beamlines will be located. In order to reach the required stability values, the floor will be a sandwich construction of total thickness of 1 m, which will minimize retractions and deformations.

SESAME makes progress

The months of November and December have been particularly busy at SESAME. On Monday 28 November 2011 at 01:13, the microtron beam was successfully extracted from its final orbit (orbit 42) to be the full energy beam with 22.5 MeV, according to the specifications of the SESAME classical microtron. This eagerly awaited beam was obtained in the second session of full energy commissioning of the microtron. By starting with a low-energy beam (5.4 MeV), which was obtained in the previous session, the microtron commissioning team was able to raise the energy of the obtained beam in steps by extracting it from higher orbits after optimizing the beam intensity in each previous orbit. The microtron electron beam, which has a

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Delegates and speakers at the users' meeting.

minimum extraction energy of 5.4 MeV, increases by 0.535 MeV in each orbit to end up with 22.5 MeV, the operational microtron energy. In addition, the booster power supply commissioning outside the tunnel with provisional cooling system has been performed and final acceptance is expected soon. Factory tests of the booster bending-magnet chambers have been concluded.

The 9th SESAME Users' Meeting was held on 12–14th November 2011 followed by the 4th SESAME–JSPS school from 14 to 16 November, jointly organized by SESAME and the Japan Society for Promotion of Science (JSPS). The meeting reflected the broad spectrum of synchrotron-based research interests of the SESAME users' community and brought together scientists from the region and world experts in the various fields relevant to SESAME phase-I beamlines. The meeting provided a platform for information exchange and discussions of ongoing collaborative efforts within the community, as well as opportunities to develop new collaborative research projects. Four parallel workshops were dedicated to the four day-one beamlines of SESAME, namely: protein crystallography (PX), IR, XAFS/XRF and PD (powder diffraction). More than 30 posters were presented, and a jury comprising international scientists



A view of the SESAME hall with completed shielding structure. The beamline apertures are clearly visible.



Amor Nadji (right) with Samar Hasnain, standing in front of the booster magnets in the experimental hall where the power supply tests were performed.

selected one poster as the best poster. The users' meeting had 130 registered participants with more than 80 coming from outside the host country, Jordan. Fifty participants were selected for the SESAME–JSPS school. The format of the school was lectures followed by discussions, hands-on practice sessions, and user presentations. In parallel, the Science Advisory and Beamline Advisory committees met on 15 and 16 November 2011, touring the facility on the second day.

The SESAME Council met in Ankara, Turkey. The basic budget for 2012, which had a 5% increase for members' contributions compared with last year, was accepted. Turkish delegates made it clear that Turkey is committed to making the voluntary contribution pending on the bill going through the parliament. Four countries are expected to confirm voluntary contributions soon, which is expected to bring an additional USD 20 million for the construction of the project. The International Atomic Energy Agency (IAEA), who have provided significant resources towards a capacity building programme, informed the Council that they are going to allocate just over EUR 1 million over the next period, 2012–2015. The Council also endorsed the plans for acquiring magnets for the storage ring *via* a CERN–EU consortium as recommended by the Technical Advisory Committee. The Council learned that Amor Nadji will be taking over as the machine director position from January 2012, but he and SOLEIL management have agreed that he will continue to devote 20% of his time to SESAME. The Council thanked him for his dedication and professionalism and wished him success with his new responsibilities while continuing to ensure that the SESAME project continues to make good progress. It is expected that a full-time replacement will be in place soon.