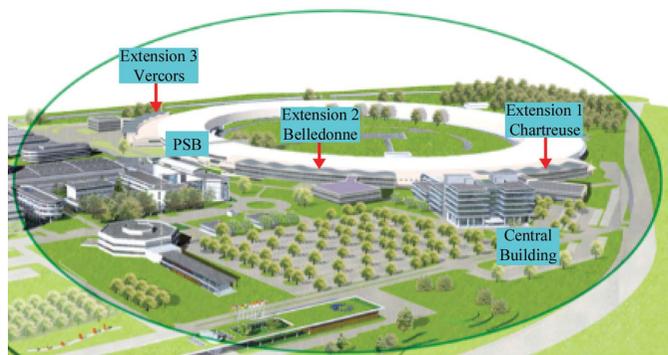


current events

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.hasnain@dl.ac.uk).

ESRF proposes USD 280 million upgrade plan

ESRF recently outlined its upgrade plan *via* a five-year capital investment of USD 280 million. The renewal programme is aimed at maintaining ESRF's role as Europe's leading provider of 'hard' X-rays (up to the ~ 500 keV range) from a very reliable source producing highly stable focused beams (down to ~ 20 nm) with very high intensity. The immediate upgrade will develop, on the existing machine, increased stored current, a top-up possibility to improve the performances of special operation modes, and front-ends adapted for canted insertion devices. As a first step it is planned to increase the ring current to 300 mA, which would require new crotch absorbers and can be implemented within three to four years. A further increase to a current of 500 mA is envisaged in the longer term but will require more refurbishment. The time horizon for a 500 mA ring current is estimated to be between five and ten years. Two scenarios of lattice upgrade are being investigated to improve the current effective horizontal emittance of 4 nm rad to 1 nm rad within the constraints of the current physical layout of the tunnel, shielding and beamlines. In order to routinely deliver nanofocus capabilities, about one-third of the beamlines would be upgraded with an emphasis on nanofocus capabilities. This will be achieved by extending one-third of the experimental hall so that these beamlines can be extended to 120 m. The proposed renewal programme is expected to start in 2007.



The extensions to the ESRF buildings are shown, which will recover the lost experimental hall space for users when beamlines are extended to ~ 120 m. Partnership for structural biology and the central buildings are also indicated for reference.

EU project 'SAXIER' launched

EU funding has brought together a number of European small-angle X-ray scattering groups involved in exploring novel scientific applications for the new generation of small-angle X-ray scattering (SAXS) experiments at current and future light sources. SAXIER would have USD 9 million at their disposal (50% contributed by EU). The project is coordinated by the EMBL Hamburg Outstation as a Design Study under the Infrastructure Programme of the EU Framework Programme 6. The kick-off meeting consisted of reports from the five partner institutes involved in eight work packages. The group, among other objectives, will explore the possibilities of a rapid deep-freezing method in combination with microfluidic devices with the aim of creating a working prototype of cryogenic sample environment. They will also investigate the potential of measuring the scattering from biomolecules in the gas phase while the molecules are confined in an ion-trap mass spectrometer. The objective of this design study is to create a working prototype for gas-phase scattering with the possibility of mass measurement. Both of these developments are intended for an extreme brilliance SAXS beamline with a view to future applications on X-ray free-electron lasers. A workshop for the dissemination of work done by the SAXIER consortium will be organized as a satellite meeting to the next ESRF User Meeting in February 2007.



Partners of the SAXIER consortium gathered for the kick-off meeting at the EMBL Outstation in Hamburg on 30 January 2006. Right-to-left: Dimitri Svergun (EMBL Hamburg, co-ordinator), Manfred Roessle (EMBL Hamburg), Margret Fischer (EMBL Hamburg, project secretary), Oleg Kononov (ESRF), Christian Riegel (ESRF), Maria Douka (EU project officer), Günter Grossmann (Daresbury Laboratory), Javier Perez (Soleil), Maxim Petoukhov (EMBL Hamburg), Heinz Amenitsch (IBR), Peter Laggner (IBR) and Samar Hasnain (Daresbury Laboratory).