



European Synchrotron Radiation Facility

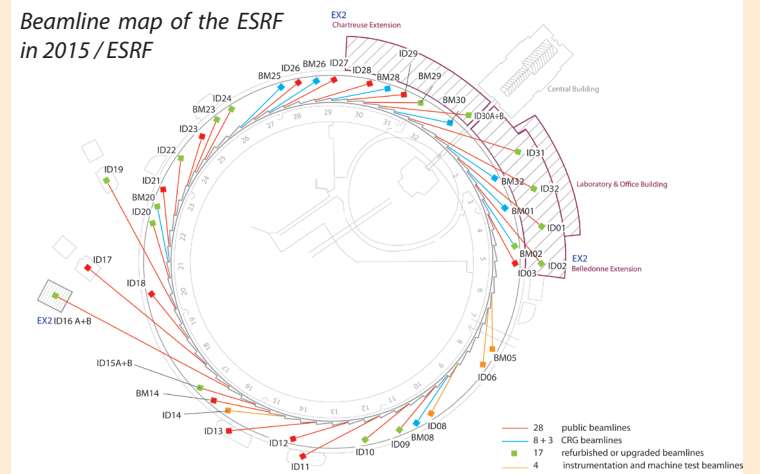


The ESRF at sunset / ESRF/Molyneux

The ESRF enables more than 6000 scientists per year performing frontline science. Society faces important questions: we are living longer, face population growth and shortage of resources. By solving fundamental scientific questions, the ESRF helps using resources better and improving daily life.

Planned Development

Beamline map of the ESRF in 2015 / ESRF



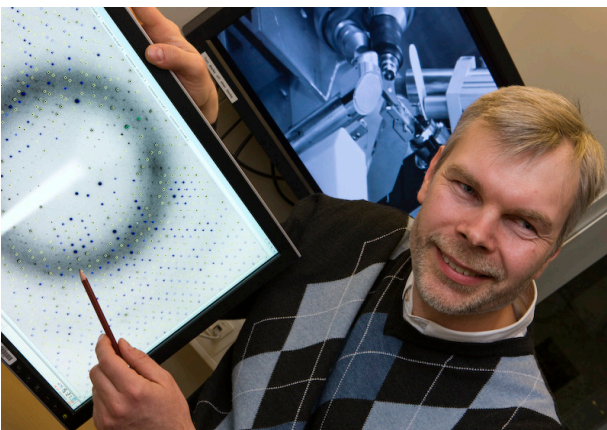
The first phase of the ESRF Upgrade Programme 2009-2015 includes eight Upgrade Beamline Projects, each of which with performances unique worldwide. In addition, many existing beamlines are being refurbished, bringing the total number of new ESRF beamlines to 17.



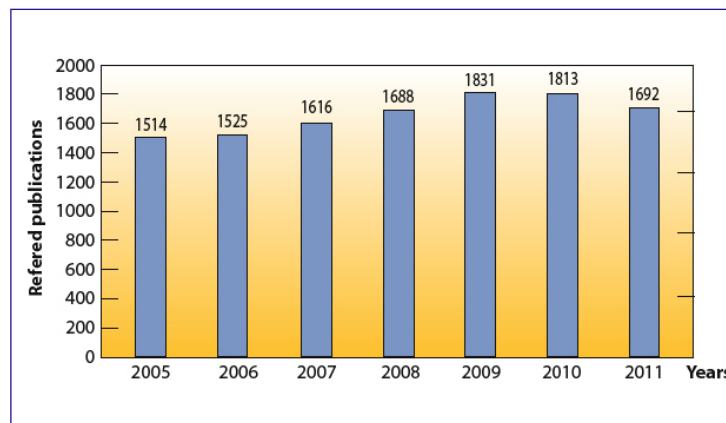
Artist's impression of the ESRF in 2015 when the building extensions are completed / ESRF/Sudarchitectes

The Council of the ESRF has established a "Working Group for the Scientific Mission of the ESRF" to deliver by end 2012 a report to address whether a major accelerator upgrade could be envisaged, which areas of science should be developed and the ESRF position with respect to the other synchrotrons.

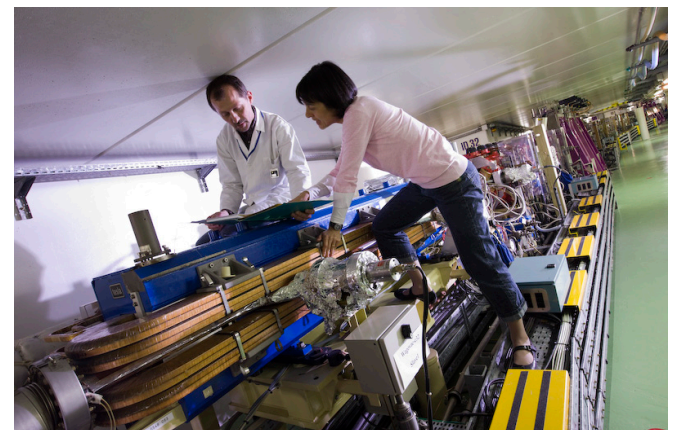
Highlights



Engineer Olof Svensson explaining MX beamline automation / ESRF/Molyneux



Refereed publication from experiments at the ESRF / ESRF



A view into the ESRF storage ring tunnel / ESRF/Molyneux

PDB deposited structures from data collection at the ESRF reached 8294 in May 2012, i.e. 46% of the European output since 1995. The Upgrade Project ID30 will bring the technology together for a throughput of 1000 crystals per day, ten times more than possible today anywhere in the world.

The ESRF receives ~2000 proposals per year, and selects ~900 experiments through peer review. The result, including CRG beamlines and in-house research, are 1800 publications per year, many of which in high-impact journals: in 2011, 52 articles in Nature and Nature monthly research journals alone.

20 years after the first beam and the first X-rays delivery, the ESRF continues to be the world's most brilliant source of hard X-rays, with a reliability of ~99% and 5500 hours of annual user operations. Over 20 years, the brilliance has increased by a factor of 10,000, and this is not the end.

In a Nutshell



Local contact

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European Synchrotron Radiation Facility
Grenoble (France)
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Starting year 1994

Management

Francesco Sette, Director General
Harald Reichert, Director of Research
Pantaleo Raimondi, Director of Accelerators and X-Ray Source

User Office

Joanne MacCarthy, useroff@esrf.fr

Enquiries on major procurement projects
Jean-Michel Georgoux, procurem@esrf.fr

Electron energy 6 GeV
Nominal beam current 200 mA
X-ray energy range 2 keV - 150 keV; one IR and one soft X-ray beamline.
41 beamlines of which 11 CRG/CAT beamlines

Key figures (2011)

5500 hours of operation
5500 users
1800 refereed publications

