

Industrial Partnerships and Business Development at SOLEIL: contributing to strengthening the competitiveness of companies

Positioning

As one of its mission statements, SOLEIL aims to position itself as a key source of R&D and technological innovation for the business world.

The two main tasks of the Industrial Partnerships and Business Development Group (GRIVAL), a support group for all SOLEIL divisions, are:

- Administration of access by companies (from industry and services to industry), to the equipment, skills and services offered by SOLEIL.
- The business development from the knowledge generated at SOLEIL by its in-house scientific research, technological development and innovation: R&D partnerships with companies, acquisition and management of intellectual property rights, transfer of know-how or technology to industrial enterprises and creation of innovative start-ups.

Results of the first four years of operation at SOLEIL (2008-2011)

The regular promotion and prospecting actions towards the business world correspond on average to one company visiting SOLEIL per week, an active presence at a trade show or a business convention each month and monthly

participation in research-industry networking clusters: these actions generate each year more than 600 exchanges of information with companies.

This business activity led, by the end of 2011, to an average of 25 industrial projects per year, evenly distributed between services billed to industry and projects selected by program committees, representing approximately 5% of all projects carried out by external users of SOLEIL.

Concerning the business development from its knowledge, the main results at the end of 2011 are as follows: fifteen industrial partnerships for the use of beamlines or for R&D projects, 4 know-how transfers to French SMEs, 5 international patents in co-ownership with companies or public research organizations, 3 SOLEAU envelopes (limited intellectual property rights) filed and a project of start-

up based on environmental analysis services.

Forecasts for 2012... and beyond...

In 2012, SOLEIL recorded an increasing industrial demand for synchrotron use, characterized by a tripling of billed services. In addition to regular users, the portfolio increased with new industrial users from France, Europe and the rest of the world.

Regarding the business development from its knowledge, SOLEIL has produced in 2012 a sixth invention co-developed with a partner, a new know-how transfer to an industrial partner, a multi-partner project to create a research and services platform in the cosmetics industry and a project of technological spin-off.

→ **Contact :**
deblay@synchrotron-soleil.fr

SOLEIL offers companies:

- Analysis services for complex materials and living matter on the synchrotron beamlines
- Technical services (magnetic measurements, ultra-high vacuum cleaning, optical metrology, manufacture of micro-systems with deep lithography...)
- Bilateral or multilateral scientific or technological research partnerships
- Know-how transfers for the industrialization, manufacturing and sale of technological products developed by SOLEIL.



ICES12



THE INTERNATIONAL CONFERENCE ON ELECTRON SPECTROSCOPY AND STRUCTURE (ICES12), organized by SOLEIL, took place between 16th and 21st September 2012 à St Malo, with nearly 300 participants. Traditionally (first organized in 1971 at Asilomar, USA), this conference brings together surface physics and dilute matter scientists using electron spectroscopy to understand the

fundamental processes in radiation/matter interactions and the fundamental properties of matter.

The plenary lectures really illustrated the dynamism of this field, highlighting the tremendous opportunities opened up by the new coherent sources, but also how complementary are the more conventional synchrotron sources which are pushing the spectral resolution to its limits. The inaugural conferences, dedicated to theory, made it possible to carefully analyze the potential and current limitations of theoretical tools in the field. In parallel sessions, fundamental processes in atomic and molecular physics were addressed (localization, quantum recoil effects, ultrafast dynamics, etc.), in surface physics (electron correlation, topological insulators, graphene), but also looking at the interface of the domains (reactivity,

catalysis, physical chemistry, nanoparticles, liquids), which became the occasion for very fruitful exchanges between the scientific communities. Advances in instrumentation, particularly with the development of analyzers adapted to new sources, means that we can now reach ultrafast (attosecond) phenomena, a time characteristic of electron movements. Meanwhile, sophisticated sample environments give access to the coupling of spectral and spatial information, as well as to the observation of matter under new conditions (high pressure, liquid, etc.). The conference concluded with a tour of SOLEIL, which was a resounding success (about 100 participants). We would like to thank those responsible for the remarkable practical organization of the conference, unanimously appreciated by the participants.



SOLEIL Users' Meeting 2013

THE 8TH SOLEIL USERS' MEETING WILL TAKE PLACE ON JANUARY 23RD AND 24TH, 2013 AT SOLEIL AND THE "ECOLE POLYTECHNIQUE" (PALAISEAU).

The meeting provides an invaluable forum for the synchrotron radiation user community, presenting an important opportunity both to obtain the latest information on beamlines performance at SOLEIL and to hear about the latest results obtained at SOLEIL.

The meeting will take the form of three plenary lectures concerning the following topics: Cultural heritage, Material science and Diluted matter. Round table discussions will be organized on the first day to give the opportunity for interactions

between users and beamlines managers. The parallel sessions will consist in original scientific presentations, selected from submitted abstracts for oral presentation.

During the poster session, the best student poster will be awarded a prize.

A social programme will be held at SOLEIL on the afternoon of January 23rd in conjunction with the commercial exhibitions and visits of SOLEIL.

A satellite Workshop, SYNchrotron Radiation for Electrochemical Energy Storage – SYREES 2013, will be held on January 21st and 22nd, 2013.

➔ www.synchrotron-soleil.fr/Workshops/2013/SUM2013





SRI 2012 (Synchrotron Radiation Instrumentation)



FROM JULY 9TH - 13TH THE CITÉ INTERNATIONALE CONGRESS CENTER IN LYON hosted representatives of synchrotrons around the world for this International conference week on instrumentation for synchrotron radiation sources and beamlines. SOLEIL and ESRF were jointly responsible for the scientific program, which included about 140 lectures and 650 posters. With over 1,000 participants from around the world, this 2012 edition of SRI broke all attendance records since the first one held in the early 80s. This event brought together users, researchers and engineers, as well as industrial suppliers of synchrotron radiation centers. As in earlier conferences, a significant number (about 80) of young researchers benefited from grants from the Region Rhône-Alpes, allowing them to be accommodated free of charge in a student residence. More than 70 businesses, mostly high-tech suppliers to synchrotrons around the world, held stands in the exhibition area. You can get an idea of how this week



devoted to science, technology and innovation panned out by logging on to www.sri2012.org

The next SRI conference will take place in New York in 2015 and, as is the tradition, the local SOLEIL- ESRF 2012 organizing committee will accompany our American colleagues to ensure that the 12th SRI enjoys the same success.

KEY FIGURES
 4 DAYS OF CONGRESS
 1009 PARTICIPANTS
 679 POSTERS
 72 EXHIBITION STANDS