

# The European Spallation Source and Institut Laue-Langevin Explore Future Collaboration

FEB 10, 2015

Professor Bill Stirling, Director of the Institut Laue-Langevin (ILL), made a two-day visit to ESS in the last week of January. He was briefed on the progress of the project and held a series of meetings to discuss areas where the two facilities are cooperating and to explore where the two facilities can do more together in the future.

LUND — The director of the world's leading centre for neutron science made a productive two-day visit to the site of the next world-leading neutron source, The European Spallation Source (ESS). ILL Director, Professor Bill Stirling, met January 27-28 with ESS Director General and CEO Jim Yeck to discuss the latest progress at ESS as well as recent developments at ILL in Grenoble, France.

Through a series of meetings that spanned the full range of the ESS project and its team members, as well as a visit to the ESS construction site and a tour of Max IV, Stirling received an overview of the developments in Lund.



L-R: ESS Director General Jim Yeck, Skanska Section Manager for Tunnel Works Kieran Deasy, ESS Deputy Project Manager Magnus Jacobsson, and Director of the ILL Prof. Bill Stirling, at the ESS construction site.

'I can't overstate the value of the experience our collaboration with ILL brings to ESS,' says Jim Yeck, Director General at ESS. 'Bill Stirling's experience leading research infrastructures is invaluable; he knows the organisational challenges that come with local and global

collaborations across science and industry.”

As part of his visit, Stirling gave a presentation to ESS management and other personnel describing ILL in the context of its partnerships with the European Photon and Neutron (EPN) science campus and the GIANT innovation campus, which together form a large physical and organisational conglomeration of science and industry concerns based in Grenoble. Sterling also gave a round summary of major recent activities and the current status of the ILL. Further meetings took place between Stirling and several members of the ESS science management team, as well as group leaders from those project areas where ESS and ILL anticipate opportunities to work together.

‘ESS is an ambitious project, essential for European science,” said Stirling. ‘It is crucial that ILL and ESS work in close partnership over the next decades to maintain Europe’s expertise and experience in neutron scattering science and techniques. Visiting the ESS construction site was an exciting experience—it is simply immense—that brought home to me the need for very close cooperation between our two institutions during the construction, commissioning and operational phases of the ESS project.”



The Institut-Langevin in Grenoble, France. PHOTO: ILL

The enormous benefits of the ESS-ILL collaboration have already been witnessed in the two institutions’ ongoing five-year cooperation in the context of the 7th Framework Programme focused on developing a new generation of advanced detector technologies. The *MultiGrid* detector prototype, based on ILL’s detector concepts and fitted with the boron carbide-coated aluminium plates developed by ESS and Linköping University, is widely seen as the way forward for detector technology in the wake of an uncertain market for the industry-standard Helium-3.

‘After many years of working with neutrons and synchrotron X-rays, I believe that successful instrument design and construction requires real ‘hands-on’ experience,” says Stirling. ‘Here at ESS you have teams made up of engineers and scientists who have worked at many different neutron facilities, with a strong cohort from the ILL.”

Established over 40 years ago, ILL is a major partner of ESS and has long been the world's flagship institution for research with neutrons. With more than 800 experiments conducted each year, on some 40 instruments, the facility has laid the neutron science foundation that ESS will build on. ESS, established as a broad consortium of European nations, will be the world's most powerful neutron source when it goes online in 2020.



Francesco Piscitelli (ESS/ILL) working on the large *MultiGrid* detector prototype (3 m x 0.8 m) at ILL, which includes the 10B4C-coated plates produced by ESS and LiU. PHOTO: ILL

In addition to the collaboration on detector technologies, key ESS personnel have come from ILL and some important ESS instrument design and engineering will also take place at the facility. Prof. Stirling, who is also the former director general of the European Synchrotron Radiation Facility (ESRF), has himself designed and built instruments, some of which are still in use today.

'My meetings with your staff,' continued Stirling, 'have confirmed the enthusiasm that exists here and at ILL for deepened cooperation between our two organisations. I look forward to further meetings in the near future when we can decide together on a series of mutually beneficial joint projects on neutron techniques and instrumentation.'

###