

Visit by J-PARC Director Opens Doors for Swedish-Japanese Research Collaboration

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ESS and J-PARC. Naohito Saito, Director of the Japan Proton Accelerator Research Complex, visited ESS and MAX IV on Monday to exchange knowledge and discuss their upcoming collaboration workshop with ESS and Swedish universities.

LUND—The European Spallation Source (ESS) hosted the Director of the Japan Proton Accelerator Research Complex (J-PARC), Naohito Saito, and the head of the Tokai, Japan facility's Particle & Nuclear Physics Division, Takashi Kobayashi, on Monday. The visit included reciprocal updates on the two large facilities, ESS and MAX IV site tours, and a discussion of the MIRAI collaboration workshop scheduled for June.



From left, Masatoshi Arai, Naohito Saito, ESS Deputy Construction Manager Magnus Jakobsson, and Takashi Kobayashi on a site tour January 16. PHOTO: ESS

'Japan and Sweden both have long traditions of innovation and are heavily investing in large-scale facilities like ESS, MAX IV, and J-PARC in order to be at the forefront of science and research,' said Professor Saito. 'Together we have produced high quality research, but there is a strong potential to further expand and strengthen these collaborations. We will continue a close collaboration with ESS and with Swedish researchers generally.'



Knowledge Exchange Between ESS and J-PARC to Continue

Professors Saito and Kobayashi led a well-attended afternoon seminar on J-PARC for ESS management and staff, providing an overview of the multi-purpose and multidisciplinary facility. J-PARC is home to a series of world-class proton accelerators and experimental facilities. The research complex is unique in the variety of secondary-particle beams (neutron, pion, kaon and neutrino) put to use in cutting-edge research in fundamental nuclear and particle physics, materials and life science, and nuclear technology.

"ESS has benefitted greatly from building on the experience and expanding on the knowledge of other facilities such as J-PARC. Continuing to develop these collaborations with world-leading facilities will strengthen the foundation for ESS," said Masatoshi Arai, a Technical Coordinator at ESS and former Director of J-PARC's Materials and Life Sciences Experimental Facility (MLF).



Future collaboration between ESS, J-PARC and Swedish and Japanese universities was the major area of discussion during Monday's afternoon session. Clockwise from left, former ESS Science Director Dimitri Argyriou, Masatoshi Arai, Takashi Kobayashi, Naohito Saito, John Womersley, Olov Sterner and current ESS Science Director Andreas Schreyer. PHOTO: ESS

The ESS collaboration with J-PARC goes back to ESS's Design Phase and remains strong. In April 2015, a joint effort by physicists from the ESS Target Division and J-PARC resulted in [a set of experiments at J-PARC](#) that validated the physics behind the ESS 'flat' moderator design. This breakthrough optimisation of the ESS moderator is expected to produce 2.5 to 3 times more neutrons (than the preceding baseline design) for those instruments at ESS able to exploit its high brightness.

MIRAI Workshops Will Lay Foundation for Long-Term Swedish-Japanese Research Collaboration

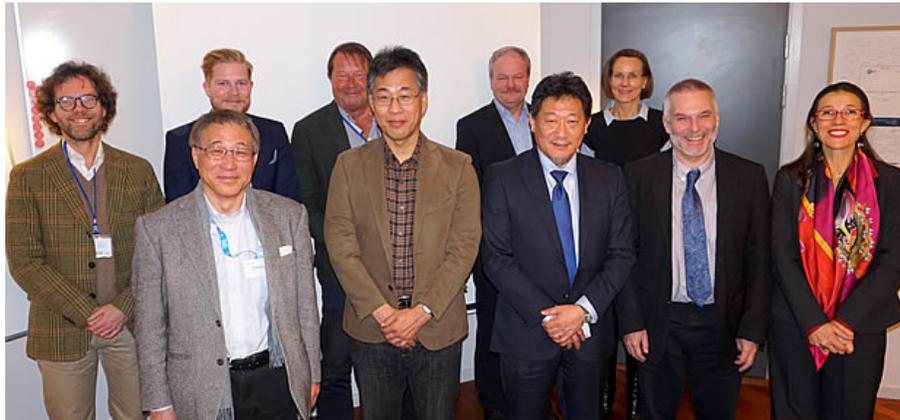
ESS Director General John Womersley, Science Director Andreas Schreyer, and Olov Sterner,



Dean of the Faculty of Science at Lund University, joined Saito and Kobayashi for an afternoon discussion of the upcoming June collaboration workshops. Lund University is Swedish coordinator for the MIRAI project, with counterpart Nagoya University in Japan. Fourteen universities across the two nations will participate in MIRAI, which will connect Swedish and Japanese universities through research, education and innovation.

"We foresee that our joint Swedish-Japanese MIRAI initiative will lead to strong international and national collaborations within and between Sweden and Japan," said Dean Sterner. "We expect that this comprehensive project will lay the foundation for a future long-term bi-national academic cooperation that extends beyond the proposed time frame of the project."

MIRAI is specifically directed at researchers at an early stage of their career to lead future joint activities between universities in the two countries. The topic and focus of the project will be within the broader contexts of large-scale research facilities, life sciences, sustainability, ICT, and innovation processes. In addition to Lund University, Swedish participants include Chalmers University of Technology, Linköping University, Stockholm University, Umeå University and Uppsala University.



Participants in Monday's discussions included (back row, from left) Henrik Hofvendahl (Lund University), Niklas Nannskog (LU), Olov Sterner (LU), Andreas Schreyer (ESS), Ute Gunsenheimer (ESS), (front row, from left) Masatoshi Arai (ESS), Takashi Kobayashi (J-PARC), Naohito Saito (J-PARC), John Womersley (ESS), and Sonia Coelho Sutton (LU). PHOTO: ESS

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