



SAKURA

MOBILITY PROGRAMME

Overview



- SAKURA is a mobility programme funded by Intsam under the lead of the Swedish Research Council (VR).
- The programme concerns funding of a bilateral exchange programme for researchers and/or technical personnel between Sweden and Japan.
- The idea of the programme was born in connection to the 150th anniversary of diplomatic relations between the two countries which was celebrated in Stockholm in 2018.
- The aim of this mobility programme is to facilitate an exchange of knowledge and best practice methods between the Swedish and Japanese neutron scattering communities. The programme seeks to strengthen & enhance scientific collaboration focusing in particular on neutron research activities of ESS and J-PARC.
- SAKURA will further deepen the collaboration between ESS and J-PARC. J-PARC has long served as a benchmark for ESS, and the two facilities have been collaborating from the early days of the ESS design phase.

Numbers (2019-2023)



- Financing & Budget
 - 200K EUR
- Applications (Total of 33 Proposals)
 - Successful (26)
- Number of Mobilities
 - 13 mobilities between Sweden and Japan

Numbers (2024 & beyond)



- 3rd Call for Application
 - 16 Proposal (Including 5 joints applications)
- Supplementary budget to cover activities in 2024
- Negotiating extension with Funders

Launching Ceremony

- The inauguration ceremony brought together representatives of the Swedish research community, academia, funding agencies, and guests from Japan. It was held at the residence of Japan's Ambassador to Stockholm, H.E. Shigeyuki Hiroki, who opened the event and received a special invitation in the form of an ESS-branded hard hat to visit ESS and see progress on the construction of one of Europe's largest research infrastructure projects.
- We are pleased that SAKURA was initiated by the Swedish Research Council (VR) itself. This demonstrates that our Host Country Sweden is strongly committed to building the scientific and technical capacity related to neutron scattering and materials science in general



From LEFT: Martin Månsson (SNSS), Sven Stafström (VR), H.E. Ambassador Shigeyuki Hiroki, Naohito Saito (J-PARC) and John Womersley (ESS).

Evaluations at KTH

- Before the celebrations kicked off, the SAKURA Evaluation Committee met at the KTH Royal Institute of Technology to select the best proposals from a pool of applications submitted in the first call. The Committee is composed of representatives of ESS, J-PARC and the Swedish Neutron Scattering Society (SNSS).
- 15 nominated scientists, academics, and experts were funded to travel to Japan and Sweden to conduct strategic research leading to long-term collaboration between ESS and J-PARC in key technical areas.



SAKURA Mobility Programme evaluation committee. From LEFT: Toshiya Otomo (J-PARC), Masatoshi Arai (ESS), Maja Hellsing (SNSS), Jonathan Taylor (ESS), Naohito Saito (J-PARC), Rikard Linander, Anne Charlotte Joubert, Adrameh Gaye, Ute Gunsenheimer, all ESS, and Martin Månsson (SNSS).

Scope



- The mobility programme shall enable researchers affiliated to Swedish Universities and research institutes, researchers and/or personnel working at ESS to travel and stay in Japan, as well as personnel working at J-PARC and researchers affiliated to a Japanese university or research institute closely collaborating with J-PARC to travel and stay in Sweden. Beneficiaries from Japan will be able to go to the ESS in Sweden, and Swedish beneficiaries to J-PARC in Japan.
- Visits to universities or institutions with legal cooperative agreement with J-PARC or ESS can be considered as a secondary purpose, but will need to be duly justified. This programme is aimed to facilitate an exchange of knowledge, best practice methods, and build capacity using pulsed neutron scattering techniques between ESS and J-PARC.

Technical Scope

- The main objective of the grant is to support and strengthen the creation and development of new or existing research that in the longer perspective may develop into long-term collaborations.
- During the exchange period the researchers and/or personnel must conduct strategic research within one or more of the topics listed below;

Accelerator and Target Technology	Shielding and Safety
<ul style="list-style-type: none">▪ Beam Physics▪ Moderator Technology▪ Target Technology▪ RF technology▪ Control software technology	<ul style="list-style-type: none">▪ Radiation safety▪ Waste handling▪ Neutronics and shielding▪ Active sampling handling
Neutron Instrumentation	User, Sample and Computation Services
<ul style="list-style-type: none">▪ Instrument concept & technology▪ Instrument operation techniques▪ Science using pulsed neutron instrumentation	<ul style="list-style-type: none">▪ Deuteration services▪ User Program Strategy (Academia & Industry)▪ Sample environment technology▪ Sample preparation synthesis and characterization techniques▪ Scientific computing, software modelling & data handling

Funding & Exchange Period



The exchange period can be for a period of up to **six months** with a minimum stay of one week. During the exchange period, the salary of the grantee will continue to be paid by their employing institution.

The grant is aimed to cover the cost of the stay abroad which include:

- Travel (return flights, visa, insurance) and
- Daily Subsistence (food allowance, room, local costs and boarding).

The grant amount is calculated per day using organizational regulations for allowances (ESS, KEK, JAEA) and total amount varies depending on the period of stay.

Eligibility Criteria



The following conditions must be fulfilled in order to be eligible for funding:

- The applicant(s) must be employed at the start of and throughout the grant period.
- The applicant(s) must hold a higher degree, and/or be a technical/admin staff working at a facility/university/institute.
- The proposal(s) must address one of the four areas of science listed in the Technical Scope: Accelerator and Target; Neutron Instrumentation; Shielding and Safety; as well as User, Sample and Computation Services.
- The applicant(s) must provide a signed Letter of Commitment from their institution confirming their willingness and ability to participate in the programme.
- A Letter of support from the counterpart institution confirming willingness to host the participant for the specified period mentioned in the application.

Evaluation & Assessment



An Evaluation Committee comprising on members from ESS and J-PARC will analyse all eligible applications. The committee will assess the relevance of applications using the criteria below;

- *Proposer, Facility Contacts*
- *Topic*
- *Scientific or Methodological motivation*
- *Expected Outcome (Milestones and Deliverables)*
- *Collaborative Aspects*
- *Interest for ESS facility*
- *Interest for JPARC facility*
- *Practical Details (Planning and Support)*

Future of SAKURA



- VR will formally decide about funding on Wednesday 13/6.
- The suggestion on the table is to continue SAKURA with a budget of 1 MSEK for 2025, and with the aim of 1 MSEK for 2026 and 2027 as well.
- VR is very happy with the program and are looking at ways to continue the program for another 3 years. These next 3 years will be very important as ESS is going through transition from construction to operations with all associated challenges ahead.
- The exchange of personnel, experiences and know-how between leading research facilities and universities is an essential ingredient in maintaining neutron instrumentation and research at the cutting edge of performance. The SAKURA Mobility Programme will further deepen the long-term collaboration between ESS and J-PARC which has started already during the ESS design phase.