

SwedNess - Call for Proposals for financing PhD-students with industry relevant projects

The Swedish Research Council has granted funding for a new generation of PhD students within the National Graduate School in Neutron Scattering, SwedNess (Swedish Neutron Education for Science & Society). The grant, corresponding to 48 MSEK, will finance 16 PhD students, i.e. 3 MSEK/project. New for this generation is that the call is aimed at both synchrotron radiation and neutron scattering as well as that all projects should be industry relevant and have an industrial partner. This call is open for researchers at all Swedish universities with a co-applicant from Swedish industry. A maximum of two additional co-applicants from a Swedish or international university or research institute are also accepted.

SwedNess is aiming to meet the highest international scientific standards and the graduate students are trained to achieve a broad competence in X-ray and neutron scattering-based research.

Background

One of the biggest European research infrastructure projects is being realized in Sweden. The European Spallation Source (ESS) will, according to plan, be up and running in the next few years. In close proximity to ESS lies MAX IV, the worlds most advanced synchrotron. Together these world class facilities provide the possibility to use a combination of neutron and synchrotron radiation for in-depth studies of the structure, dynamics and function of materials over a wide range of length- and time-scales. The two facilities are a unique opportunity for both Swedish universities and industry to further strengthen their international standing and competitiveness. However, to fully utilize these opportunities the Swedish user base needs to be both broadened and deepened.

Scope

The aim of the SwedNess graduate school is to strengthen Sweden's long-term competence and competitiveness within the area of synchrotron and neutron scattering science and technology.

The graduate school will

- create an educational structure for training a new generation of researchers and research leaders
- promote a vivid and strong research environment with added scientific value
- strengthen industry use of neutron and synchrotron facilities
- strengthen industry-academic cooperation
- strengthen the recruitment basis and quality
- encourage national and international networks
- stimulate interdisciplinary research

within applied synchrotron and neutron science and diagnostics as well as within corresponding fields that can make large use of state-of-the-art synchrotron and neutron scattering sources.

Non-exclusive examples of important research and training areas are:

- Sources, Instrumentation, and Software
- Hard and Soft Condensed Matter
- Life Sciences, and Life Science Technologies
- Chemistry and Materials for Energy
- Basic Physics, such as Magnetic and Electronic Phenomena
- Engineering and Geosciences.

Eligibility

The main applicant must be a prominent researcher employed by a Swedish university. The supervisors must be prepared to assume operative responsibility for the project during the entire grant period. At least one of the supervisors must have documented extensive knowledge and experience of synchrotron and/or neutron scattering methods. All projects must have an industrial partner with an industrial co-supervisor.

Application

The application shall include

1. A project description where synchrotron and/or neutron scattering methods are expected to have a key contribution to the scientific results. (max 5 A4 pages including references, Arial, font size 11)
2. CVs (2 A4 pages per applicant, Arial, font size 11) for all applicants including previous scientific achievements, international experience and network, use of synchrotron and neutron facilities, supervision of PhD students and including 10 most relevant publications for the project.
3. Support letter from the industry partner detailing the involvement of the partner including co-financing. The letter shall also contain a motivation on how the project will support solving an industrial challenge relating to e.g. health and safety, production, or process-related issues. It shall preferably include a motivation on the estimated value of the challenge described, and how increased know-how and access to neutron and X-ray techniques can benefit the company. (max 2 A4 pages including references, Arial, font size 11)
4. Support letter from the university (Head of department or similar) of the main applicant guaranteeing the finances for the project as well as the employment of the main supervisor throughout the project period. (max 1 A4 page including references, Arial, font size 11)
5. A plan for the use of ESS, MAX IV, or other relevant international neutron and/or synchrotron radiation facilities, including a description of how facility access will be obtained (e.g. beam time applications). (max 1 A4 page including references, Arial, font size 11)
6. A financing plan (including a budget) specifying expected co-financing from the industry partner and/or host institution. Industry partners are expected to contribute approximately 1 MSEK per project (cash and/or in-kind, e.g. covering operations and travel costs). (max 1 A4 page including references, Arial, font size 11)
7. A description of how intellectual property rights, confidentiality, data handling, and publishing of results will be managed between the university and the industry partner. (max 1 A4 page including references, Arial, font size 11)

Evaluation

Applications will be assessed by an evaluation committee consisting of international external experts. Applications will be reviewed primarily on scientific excellence and industrial relevance, and feasibility. The suitability of the supervision team, as well as geographic distribution and topical diversity, will also be taken into account in the overall assessment. It is a demand that the supervisors shall be active in all parts of the project, including visits to synchrotron and/or neutron facilities and SwedNess activities.

The final decision will be made by the SwedNess board based on the panel assessment.

The applications shall be sent to info.swedness@uu.se at the latest October 16th as a single pdf and must follow the order outlined in the Application section.

More information about SwedNess is found on the homepage <https://www.swedness.se/>.

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