Call for WISE Doctoral Student and Postdoc Positions

Internal Lund University proposal deadline: 2022-05-16

The Wallenberg Initiative Materials Science for Sustainability (WISE, https://wise-materials.org) is the largest-ever investment in materials science in Sweden and will encompass major efforts at six of Sweden's leading universities over the course of (at least) 10 years. The aim is to create the conditions for a sustainable society by researching the next generation of ecofriendly materials and manufacturing processes. This will also facilitate better technology for energy systems of the future, and to combat climate change, pollution, and toxic emissions. Specifically, efforts will be devoted to identifying new or significantly improved materials, which provide a distinct advantage in physical, chemical, biological, or functional performance when compared to existing materials and technologies. This relates to materials that demand fewer resources, are less environmentally hazardous, and enable sound and efficient recycling processes. WISE will also explore materials that, when used in energy technology, generate less negative climate impact under operation, while offering high performance and efficiency when in action at large scales.

In this call, WISE is now offering funding for up to 38 academic doctoral student positions and up to 38 academic postdoctoral researcher positions. Proposals in all areas of WISE are welcome. That is, proposed projects should be easily identifiable in the "WISE program matrix" (see figure). Proposals are for a single PhD student or single postdoc researcher.

WISE has an ambition to promote a wide coverage of PhD and postdoc projects spanning the WISE matrix and with supervisors at different stages of academic seniority. Improving gender balance is also a stated goal for WISE. In view of this, we encourage junior faculty and researchers of underrepresented gender to submit proposals in response to this call.



The WISE program matrix. Green a-e indicate research areas and blue i-iv indicate thematic areas.

Eligibility

This call is open for academic researchers (eligible to be main supervisor according to the respective university) at WISE's six partner universities (Chalmers, KTH, Linköping University, Uppsala University, Stockholm University, and Lund University) as well as Karlstad University, Umeå University, Luleå University of Technology, and Örebro University.

A maximum of 30 applications (max. 15 PhD projects + max. 15 postdoc projects) can be submitted from each university. The pre-screening and selection of applications will be handled internally at each university as described under Evaluation Process.

Each proposal is for a single PhD student or alternatively a single postdoc.

Each researcher can submit maximum one proposal as principal investigator (*i.e.* main supervisor), and participate as a co-supervisor/participating researcher in maximum one proposal. *Note that the PI for the proposal must be the main supervisor for the PhD student/postdoc if the proposal is selected for funding by WISE.*

Evaluation Process – WISE process and Lund University Internal Selection

Projects will first be pre-screened by each partner university to a maximum of in total 30 proposals before submission to WISE. Once submitted to WISE, project proposals will be further evaluated by an international panel of qualified scientists, generating a short-list. Subsequently, this short-list of proposals will be evaluated by a panel of experts on sustainability.

The evaluation criteria that will be used for evaluating the project proposals are:

- Scientific excellence and novelty of the proposed research
- Scientific merits of the applicant
- Relevance to WISE (contribution to the program and placement in the matrix)
- Feasibility
- Relevance and significance of how the proposed project contributes to sustainability goals

Through the pre-screening process and panel evaluations, we strive for a reasonable total balance of projects across the WISE program matrix of research and thematic areas.

The pre-screening process at Lund University will use a condensed version of the same evaluation procedure to be used for WISE, and the proposal format is a short version of the format for full WISE proposals, with the same content and sections. Proposals will be evaluated by a panel of experts at LU based on the same evaluation criteria as above, including relevance and significance of the sustainability goals. Applicants from all departments/faculties within Lund University are welcome (that are eligible to be main supervisor for a PhD student or postdoc).

The proposal for internal evaluation by Lund University should be structured as follows. The proposed must be composed in Times New Roman font, 12 pt, single-spaced text.

- General information (to be entered directly into the online submission form):
 - Project title
 - Name of proposer (main supervisor)
 - Co-supervisor(s)/participating researcher(s) (if applicable)

- Department/unit/division where the prospective PhD student/postdoc will be placed
- Preference for a PhD student or postdoc for this project, with a short motivation. You may also indicate if you have no preference
- At least two focus area(s) within the WISE matrix (specify both research and thematic areas, e.g. a iii)
- Project Proposal (max 2 pages), including:
 - Project Description
 - Motivation, Significance, Scientific Challenges, Goals
 - State of the Art
 - Scientific Approach, Methodology, and Novelty
 - Research Environment, Infrastructure, Key Collaborators (as applicable)
 - Relevance and Significance of Sustainability Aspects (max. 1 page*)
 - Relevance to WISE, including detailed explanation of primary and secondary focus in the WISE research areas (a-e) and thematic areas (i-iv) (see figure above)
 - Sustainability Aspects
 - Description of the how the project relates to the Sustainability Development Goals (SDGs) highlighted by the WISE program
 - Discuss advances/advantages *as well as potential sustainabilityrelated drawbacks or conflicts with other SDGs*
- CV of the PI (main supervisor) (max 2 pages), including:
 - Name, title, and affiliation
 - o PhD year
 - Periods of leave (parental, health-related, etc.), if applicable
 - List of ongoing projects
 - List of current PhD students and postdocs
 - List of 10 publications including:
 - 5 most important publications (during past 15 years)
 - 5 recent publications most relevant for the proposed project (past 7 years)

Submission

The proposal should be submitted on the wise.lu.se web site using the online submission form. Project Proposal and CV should be combined into a single PDF file with file name LastNameFirstName_WISE2022.

Timeline

- 2022-05-16 Deadline for submission of internal proposals to LU evaluation group
- 2022-06-16 Decision on which proposals will be submitted to WISE
- 2022-09-15 Deadline for submission of full proposals to WISE
- 2022-11-15 Decision of accepted projects communicated (preliminary)

- 2023-01-02 Recruitment of PhDs and postdocs opens (preliminary)
- 2023-04-21 Recruitment closes (preliminary)
- 2023-05-31 All candidates recruited*, beginning work as soon as possible (preliminary)

*Individual decisions can be made earlier.