

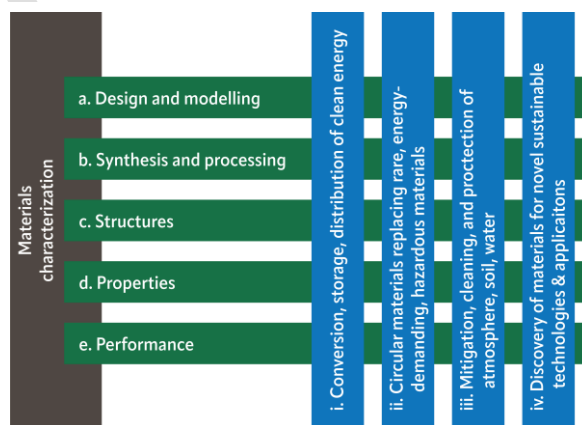
Call for WISE industrial PhD student and postdoctoral researcher positions in Materials Science for Sustainability (call: WISE-ip1)

Application deadline

30 April 2023

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 seven 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 12 industrial doctoral student positions and up to 12 industrial postdoctoral researcher positions within material science for sustainability at the six partner universities, Chalmers, KTH, Linköping University, Uppsala University, Stockholm University, and Lund University, as well as Luleå University of Technology, and the affiliated groups of excellence at Karlstad University, Umeå University, and Örebro University. 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.



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

WISE has an ambition to promote a wide coverage of PhD and postdoc projects spanning the WISE matrix and with supervisors within academia and industry. Diversity is a stated goal for WISE. Applicants with different backgrounds, experiences, and perspectives are welcome – diversity enriches our work and helps us grow. Preserving everyone's equal value, rights, and opportunities is a natural part of WISE.

Application Process

The proposal format should follow the WISE guidelines that you can find here (link to Appendix 1). The application should be compiled as a single PDF and submitted jointly by the industry and university PIs via the WISE application portal (alternatively: sending it to info@wise-materials.org) no later than 2023-04-30, 23:59.

Eligibility and Evaluation Process

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

Project

- Relevance to WISE (contribution to the program and placement in the matrix)
- Scientific excellence and novelty of the proposed research
- Feasibility
- Potential to collaborate with other WISE initiatives such as WIRA, Technology Platforms, etc.
- Relevance and significance of how the proposed project contributes to sustainability goals

PhD student or postdoc

- In case of PhD student project, grades from Master education and (if applicable) scientific merits and relevant industrial experience.
- In case of postdoc project, scientific merits, taking into account academic age and relevant industrial experience.

Industrial PI

- The industrial partners financial and operational conditions to actively participate in the project.
- The industrial partner should have considerable activity in Sweden.
- Merits of the industrial PI (publications, patents, management/ leadership experience, etc.), experience with collaborations with academia

Academic PI

- Scientific merits, taking into account academic age
- International research experience
- Pedagogical skills and merits
- Ability and experience to collaborate with academia and industry
- Doctoral student and supervisor constellation with underrepresented gender are encouraged

Funding and the WISE program

PhD student project

To applying industry

- In total 2.56 MSEK for a PhD student, paid out in lump sums every year¹ for a time period of 4-5 years (corresponding to an activity level in the range 100-80% respectively).

To the host university

- Salary (including 50% social fees) for supervision up to 10% of full-time salary for 4 years during maximum 5 years.
- Costs for travel will be covered up to 10 kSEK/year (total 40 kSEK) for visits to Industrial Ph.D student
- Indirect costs and premises can be added up to maximum 21.95%.

Postdoc project

To applying industry

- In total 1.9 MSEK for a postdoc, paid out as a lump sum of 950 kSEK/year (2 years full-time). If an SME, in total 2.4 MSEK for a postdoc, paid out as a lump sum of 1200 kSEK/year (2 years full-time).

To the host university

- Up to 300 kSEK in total (during two years) to cover salary cost for one host, travel costs for the host and consumables.
- The costs include a maximum compensation of up to 50% for social fees (LKP) and a maximum of 3.5% surcharge for premises and a maximum of 18.45% surcharge for Indirect Costs

More information about the doctoral studies in the WISE program and the duties of WISE postdoctoral research fellows can be found here (link to Appendix 2).

Timeline

2023-04-01	Call opens
2023-04-30	Call closes
2023-xx-xx	Decision of accepted projects communicated (after the 3 rd Board meeting in 2023)
2023-08-15	All candidates recruited*, beginning work as soon as possible
*Individual decisions can be made earlier.	

¹ 640 kSEK/year at 100% activity grade

Appendix 1

Proposal format

The proposal should be composed in Times New Roman font, 12 pt, single-spaced text, and be structured as follows:

- Project Description (max. 4 pages*)
 - Select main WISE thematic area i-iv (see WISE matrix in the call text)
 - Motivation, Significance, and Scientific Challenges
 - Include a clear description of the visions and goals, the distinguishing features, and foci
 - Include a motivation for why a doctoral student or postdoc is most appropriate for the proposed project
 - State of the Art
 - Scientific Approach, Methodology, and Novelty
 - Describe the research contribution
 - Preliminary and Previous Results
 - Include results from previous related projects, if applicable.
 - Research Environment and Supervision
 - Description of research environment and infrastructure (demonstrating feasibility of the proposed project)
 - Research supervision plan (for PhDs) and/or career development plan (for postdocs)
 - List of key collaborators for the project, if applicable, potential to collaborate with other WISE initiatives such as WIRA, Technology Platforms, etc.
- Relevance and Significance of Sustainability Aspects (max. 2 pages*)
 - Relevance to WISE, including detailed explanation of primary (and possibly secondary) focus in the WISE research areas (a-e) and thematic areas (i-iv) (see figure above)
 - Sustainability Aspects
 - Description of how the project relates to the Sustainability Development Goals (SDGs) highlighted by the WISE program (see WISE Brochure at wise-materials.org (About WISE, page 28)
 - Description should include *advances/advantages as well as potential sustainability-related drawbacks or conflicts with other SDGs*
- Letter of intent from industrial partner
- CV of the PhD student candidate (in case of a PhD project), max 2 pages (if applicable) including
 - Grades from Master's and Bachelor's degrees
 - Scientific merits
 - Relevant industrial experience
- CV of the postdoc candidate (in case of postdoc project), max 2 pages including:
 - PhD year
 - Periods of leave (parental, health-related, etc.), if applicable
 - List of past and ongoing projects in industry and academia if applicable

- (Optional) Short descriptions of utilization, commercialization, outreach, pedagogical, or other activities of relevance
- List of publications (5-10 selected publications)
- Link to Google Scholar profile or similar
- CV of the industrial PI, max 2 pages including:
 - Name, title, and affiliation
 - Education
 - Brief overview of projects, responsibilities and previous interactions with academia
 - Brief statement of management/leadership/supervision experience
 - Appendix may include
 - (Optional) List of max 10 publications of relevance (no time limit)
 - (Optional) List of patents
 - (Optional) Link to Google Scholar profile or similar
- CV of the academic PI (main supervisor), max 2 pages including:
 - Name, title, and affiliation
 - PhD year
 - Previous positions (and relevant supervisors)
 - Periods of leave (parental, health-related, etc.), if applicable
 - List of ongoing national and international grants/projects
 - (Optional) Short descriptions of utilization, commercialization, outreach, pedagogical, or other activities of relevance, including previous interactions with industry
 - Number (not name list) of current and number of former PhD students, postdocs, and masters students
 - List of 10 publications including:
 - 5 most important publications (during past 15 active years)
 - 5 recent publications most relevant for the proposed project (during past 7 active years)
 - Bibliometrics summary (total citations, h-index, plus other optional metrics of relevance) supported via link to Google Scholar profile or similar

* References can be added beyond the page limit.

Appendix 2

Doctoral and postdoctoral studies in the WISE program

The WISE graduate school is dedicated to providing the skills needed to analyze, develop, and contribute to the interdisciplinary area of materials science for sustainability. Through an ambitious program with research visits, workshops and meetings at the partner universities, and visiting lecturers, the graduate school actively supports forming a strong multi-disciplinary and international professional network between PhD students, postdocs, researchers, and industry. The graduate school provides added value on top of the existing PhD programs at the partner universities, providing unique opportunities for students and postdocs who are dedicated to achieving international research excellence with industrial relevance.

As a PhD student in the WISE graduate school, you are required to follow courses on materials science and sustainability in addition to your core program courses.

Postdoctoral researchers are expected to be active in the WISE program, including, *e.g.* attendance at WISE workshops and events; active membership in the WISE Graduate School; using WISE affiliation and acknowledgement of WISE and KAW in publications, conference presentations, and in relevant communication channels; and submitting requested reports to the WISE Program Office. In addition, WISE expects that recipients of project funding from WISE are committed to maintaining an updated ORCID account.