

# Call for WISE Academic Doctoral Student and Postdoc Projects (WISE-ap1)

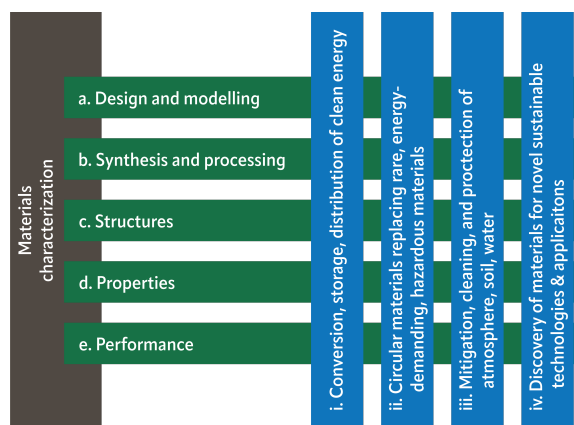
## Application deadline

15 September 2022

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 foremost 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 aims to promote a wide coverage of PhD and postdoc projects spanning the WISE matrix and with supervisors at different stages of academic seniority. Diversity is a stated goal for WISE and we aim for an improved gender balance. WISE welcomes applicants with different backgrounds, experiences, and perspectives – diversity enriches our work and helps us grow. Preserving everyone's equal value, rights, and opportunities is a natural part of WISE.



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 (with qualification 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 specifically pre-selected researchers at Karlstad University, Umeå University, Luleå University of Technology, and Örebro University.

A maximum number of applications can be submitted from each university, depending on WISE association status (see table). The pre-screening and selection of applications will be handled internally at each university as described under Evaluation Process.

**Note that you should not apply here unless already approved during your university's pre-screening process. For more information contact your WISE University Representative (URG members) for details.**

	PhD projects	Postdoc projects	Total (per university)	Total (all universities)
CTH, KTH, LIU, LU, SU, UU	15	15	30	180
LTU	4	4	8	8
Other associated (KaU, ORU, UmU)	1	1	2	6
<b>Total →</b>				194

Each proposal is for a single PhD student or alternatively a single postdoc, plus additional limited funding for supervisor/advisor (see below).

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. These limits only apply to this specific project call (not concurrent or future WISE calls).

## Evaluation Process

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 one of four panels (corresponding to thematic areas i-iv, see WISE matrix above) of qualified international scientists, generating a short-list. When needed, the WISE advisory committee will assist the panels in the evaluation of sustainability goals.

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

- Scientific excellence and novelty of the proposed research (novelty will be of extra importance for proposals submitted to evaluation panel iv)
- Scientific merits of the applicant, taking into account academic age
- Relevance to WISE (contribution to the program and placement in the matrix)
- Feasibility
- 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 proposal should be composed in Times New Roman font, 12 pt, single-spaced text, and be structured as follows:

- Project Description (max. 4 pages\*)
  - 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
- Select main WISE thematic area i-iv (see WISE matrix above)
- 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 us), page 28)
    - Description should include advances/advantages *as well as potential sustainability-related drawbacks or conflicts with other SDGs*
- CV of the 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 grants/projects
  - (Optional) Short descriptions of utilization, commercialization, outreach, pedagogical, or other activities of relevance
  - 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)
  - Link to Google Scholar profile or similar

\* References can be added beyond the page limit.

## Responsibilities

Recipients of awarded proposals (*i.e.*, applicant/ supervisor) will become WISE faculty members and are expected to be engaged in the WISE program, including, *e.g.*, attendance at WISE workshops and events, ensuring that WISE-financed PhD students and postdocs are members of WISE Graduate School, use WISE affiliation and acknowledge WISE and KAW in publications, conference presentations and in relevant communication channels, as well as submit requested reports to WISE

Program Office. In addition, WISE expects that recipients of project funding from WISE are committed to maintaining an updated ORCID account.

## **Funding**

### PhD student project

Salary (including 50% social fees) for PhD student, 4 years full-time during maximum 5 years.

Salary (including 50% social fees) for supervision up to 10% of 4-year FTE during maximum 5 years.

Costs for travel and consumables will be covered up to 50 kSEK/year (total 200 kSEK).

Indirect costs and premises can be added up to maximum 21.95%.

### Postdoc project

Salary (including 50% social fees) for postdoc, 2 years full-time.

Salary (including 50% social fees) for mentorship up to 5% of 2-year FTE during maximum 2 years.

Costs for travel and consumables will be covered up to 25 kSEK/year (total 50 kSEK).

Indirect costs and premises can be added up to maximum 21.95%.

## **Submission**

The proposal should be submitted as a single PDF file to the submission port link provided by your local WISE University Representative Group member.

## **Timeline**

2022-09-15	Call closes
2022-12-XX	Decision of accepted projects communicated
2023-01-02	Recruitment of PhDs and postdocs opens
2023-06-25	Recruitment closes
2023-08-15	All candidates recruited <sup>1</sup> , beginning work as soon as possible

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<sup>1</sup> Individual decisions can be made earlier.