
CALL FOR PROPOSALS

Industrial Graduate Schools 21

The Knowledge Foundation invites Sweden's university colleges and new universities to apply for funding for Industrial Graduate Schools. The programme aims to strengthen research and education environments at the university and meet the business sector's competence needs through doctorate schools in co-production.

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The Knowledge Foundation
requires the application no later
than 3 p.m (15:00) on
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About the Knowledge Foundation

The Knowledge Foundation finances research and competence development at Sweden's university colleges and new universities¹ with the purpose of strengthening Sweden's competitiveness. The Foundation provide funding when research and education activities are conducted in collaboration between academia and business partners. The aim is to build strong and profiled knowledge environments that co-produce research and education with the business sector. The Knowledge Foundation does not identify specific research areas, and calls are open for all scientific and artistic research fields.

Strong research and education environments

The Knowledge Foundation seeks to support the development of strong research and education environments that create value for academia, the business sector and society. In different ways, all of the Knowledge Foundation's programmes are aimed at enabling environments to establish and maintain a strong, long-term, national and international scientific or artistic position which also contributes to the profiling of the university. In the view of the Knowledge Foundation, a strong environment is one that has the capacity to develop its research and education in partnership with the business sector and takes a long-term, strategic approach to its development.

The programme Industrial Graduate Schools

The Industrial Graduate Schools programme provides an opportunity to develop and strengthen the environment's doctoral education in collaboration with the business community, which in turn contributes to profiling the environment. The programme also intend to strengthen the relationship between academia and business, which can make a positive contribution to the research and education activities at the university as well as to the companies.

Objective and purpose

The objective of the Industrial Graduate Schools programme is to fund industrial PhDs and strengthen research capacity in areas that are strategic for the academic environment and for the participating business partners.

The purpose of all the Knowledge Foundation's programmes is to build strong, business-relevant research and education environments. The specific purpose of the Industrial Graduate Schools programme is to strengthen and profile the research and boost business competitiveness by increasing business partners' skills.

¹ Blekinge Institute of Technology, Swedish Defence University, The Swedish School of Sport and Health Sciences GIH, Dalarna University, University of Borås, University of Gävle, University of Halmstad, Jönköping University, Kristianstad University, University of Skövde, University West, Karlstad University, Konstfack University College of Arts, Crafts and Design, Linnaeus University, Malmö University, Mid Sweden University, Mälardalen University, Royal Institute of Art, Royal College of Music, Stockholm University of the Arts, Södertörn University and Örebro University.

Who may apply?

Sweden's university colleges and new universities authorised to award doctoral degrees in the field addressed by the graduate school are eligible to apply for funding.

A graduate school may be operated in collaboration with other universities. Only doctoral students admitted at universities that are in the Knowledge Foundation's target group can be financed within this programme.

The Knowledge Foundation welcomes applications within all scientific and artistic research fields. When the application concerns an artistic field of research, the concept *scientific* is replaced by *artistic* in the call.

Programme design

The Industrial Graduate School is implemented in co-production with business partners. Participating companies are to be actively involved and well-integrated in the graduate school's implementation.

The Industrial Graduate School should be implemented as a unified graduate school, and the admission of doctoral students must be consolidated within a reasonably short period after funding is granted. Admission, registration and examination of doctoral students should comply with the university's existing rules. The doctoral students are to be employed by the company/research institute. Only in exceptional cases may the doctoral student be employed by the university, and in these cases the reasons behind this must be accounted for along with a description of how the company affiliation is to be secured. However, every doctoral student must be connected with a company and should conduct their research activities both at the university and at the company. The pace of study for the individual doctoral student will be planned to a maximum of 80 percent. The remaining 20 percent will consist of work at the employer.

The application can comprise the equivalent to min. 6 doctoral students and max. 15 doctoral degrees. Note the difference between doctoral students and doctoral degrees. An example of how many doctoral students an application may comprise: 12 doctoral students with the ambition to complete a doctoral degree and 6 doctoral students with the ambition to complete a licentiate degree, i.e. a total of 18 doctoral students. In total this corresponds to the study time of 15 doctoral degrees.

Each doctoral student must have a supervisor from the university and a supervisor and/or mentor from the company.

The objectives of a graduate school cannot be achieved unless it builds on, and is integrated with, one or more developed academic environments at the university and operates in close collaboration with other graduate education. It is important for a graduate school to have a unified and focused direction to enable close collaboration between the academic and business partners.

It is possible to develop an Industrial Graduate School in two stages, with two separate admission periods for doctoral students. In Stage 1, the equivalent to min. 6 doctoral students and max. 15 doctoral degrees can be admitted. After approximately two years, and under the condition that the graduate school is found to be well established, the

university may apply for funding for a group of at least four additional doctoral students in Stage 2. For the two stages combined, applicants may request funding for the equivalent to max. 20 doctoral degrees.

The planned duration of the Industrial Graduate School should be over a 6-year period, which is the maximum period funding will be disbursed (for Stage 1). The study time of each doctoral student should be planned to a maximum of 5 years.

How should the funds be used?

The Knowledge Foundation contributes towards the financing of the Industrial Graduate School by covering costs of each doctoral student who is awarded a degree from the graduate school with a maximum of SEK 1.8 million for a doctoral degree and SEK 900 000 for a licentiate degree.

The Knowledge Foundation's funds should be used to finance doctoral students and their work in the Industrial Graduate School and to cover certain operational costs, e.g. management and administrative functions, course development and shared activities within the framework of the graduate school. It is possible to transfer part of the Foundation's funding to the participating companies to contribute towards covering the salaries of doctoral students. Costs for the operation of the graduate school should amount to 25-30 percent of the funds requested from the Knowledge Foundation. However, it may not only be the funds from the Knowledge Foundation that are used for operational costs, this may also be part of the co-funding from the university. The remaining funds should be used for doctoral student salaries, for supervisors, and to cover other direct costs for doctoral students.

Budgeting of funds must be in accordance with the instructions presented in the document *General Terms and Conditions*, see www.kks.se.

The application should not include overhead costs. Such costs (20 percent) will be calculated and included in the proposed contract if the Foundation approves the application.

University involvement

Engagement from the applicant university is essential, which is why the Knowledge Foundation requires the university to co-finance the Graduate School. This contribution should appear in both the project plan and the budget.

The project manager is responsible for the implementation of the project. The application should also state who will be the project owner at the university. The project owner, who should have staff and budget responsibility at a senior level, has responsibility for ensuring proper conditions for implementing and monitoring the project. The project owner may be a head of department head or another appropriate person, in accordance with the internal organization and delegation of the university. In this case, the vice-chancellor may be project owner.

Business sector involvement

The projects must be conducted in co-production with business partners. This means that the academic and business partners, from their different perspectives, together must

formulate and address a jointly formulated question. For more about co-production, see www.kks.se.

The business sector's total commitments of in-kind contributions and/or direct financing should at least match the sum contributed by the Knowledge Foundation. Contributions by companies may include salary costs for doctoral students. In addition to that, the in-kind contributions from the company may include e.g. mentoring/supervision costs, reimbursement for educational contributions to course programmes, and other inputs which are anticipated to be of value to the doctoral students and the development of the Graduate School.

The companies' contribution should be described and motivated in the application. Companies/research institutes that have confirmed their participation in the Graduate School must confirm this with a letter of intent. The letter of intent must describe the company's commitment (incl. financial commitment), role and contribution as well as the company's motives and value for participation in the project. The application must include letters of intent from companies corresponding to at least 60 percent of the doctoral students for the planned Graduate School.

By business sector, the Knowledge Foundation refers primarily to the private business sector. The concept, however, may include companies under public ownership that are active in competitive markets and where the company finances its operations in the same manner as companies in the private business sector. Hence, public subsidies or fees may not constitute a significant portion of the company's revenues. The companies must primarily produce goods or services and may not be solely administrative enterprises. The companies must have operations in Sweden to the extent that their engagement will generate value for the co-production and have possibilities to integrate the results from the co-production into their operations in Sweden.

The business sector's contribution to the project must be described and justified in the application. For companies with fewer than 10 employees and/or less than 10 million SEK in annual turnover (based on the most recent annual report), the company's prerequisites for contributing to the project in accordance with the project plan and budget, must be very clearly described.

If any financial or personal links exist between the involved companies, between any company and the university, or between any company and individual researcher, this must be disclosed. The project plan must clearly indicate any personal conflicts of interest, and the individuals' various roles in the company or university must be clearly described. Specify, for example, share ownership, board positions, employment, or consulting activities.

Formal requirements

The application must meet the following requirements before the Knowledge Foundation will consider it for evaluation. If the application does not meet the following requirements, it will be rejected without further evaluation.

- The project must be in line with the objective and purpose of the call.

- The application shall include parts and appendices according to the call instructions.
- The applicant university must be authorized to award postgraduate degrees in the field addressed by the Graduate School.
- The project manager must have a PhD and be employed at the university.
- Funding from the Knowledge Foundation is disbursed over a maximum 6-year period (for Stage 1). The study time of each doctoral student should be planned to a maximum of 5 years.
- The business sector's total commitments of in-kind contributions and/or direct financing must at least match the sum contributed by the Knowledge Foundation.
- Co-funding business partners must fall within the Foundation's definition of business sector.
- The application should include signed letters of intent from companies corresponding to at least 60 percent of the doctoral students for the planned Graduate School.
- Costs for the operation of the graduate school should amount to 25-30 percent of the funds requested from the Knowledge Foundation. However, it need not only be the funds from the Knowledge Foundation that are used for operational costs, this may also be part of the co-funding from the university.
- Any financial or personal links between the involved companies, between any company and university or between any company and individual researcher(s), must be disclosed on the application form, see above.
- Budgeting of funds must be in accordance with the instructions presented in the document *General Terms and Conditions*, see www.kks.se.
- The earliest starting date for the project is 2023-03-01. The latest starting date for the project is 2023-10-01.
- The application must be signed by the vice-chancellor, the project owner and the project manager.

Evaluation²

The secretariat of the Knowledge Foundation will review the applications to determine if the application complies with the formal requirements.

If the application complies with the formal requirements, the graduate school in question will be subject to peer review by international scientific experts. An external evaluation panel will meet representatives of the proposed Graduate School at a hearing.

² When the application concerns an artistic field of research, the concept *scientific* is replaced by *artistic* in the call.

After the meeting the panel will submit its recommendation to the Foundation's CEO. Funding decisions are made by the board of the Knowledge Foundation.

No additions or modifications to the application will be approved after submission of the application.

Evaluation criteria

Strong research and education environments

- To what extent is there a clear description of the research and education environment 's current situation, as well as its challenges?
- To what extent is there an adequate ambition and plan for the development of the research and education environment?
- What is the added value of the project for the short-term and long-term development of the research and education environment?
- To what extent is the direction and implementation of the graduate school important to the university?
- To what extent is the graduate school expected to promote closer collaboration between the research and education environment and the business sector?

Scientific quality

- What is the scientific level of the research and education environment at the university within the area that the graduate school is addressing?
- To what extent is the proposed research agenda for the graduate school realistic, clear, and relevant in relation to the state of the art?

Benefits to the business partners

- To what extent does the proposed graduate school relate to the needs for development of knowledge in the business sector?
- How well described is the business partners' reasons for participating?

Implementation

- To what extent do participating companies actively contribute to the implementation of the Industrial Graduate School (e.g. supervising, course development, teaching)?
- Is the management and organization of the Graduate School well described?
- Is the operational plan for the Graduate School realistic in relation to available resources?

Application³

Applications are submitted via the Knowledge Foundation's website, www.kks.se, by the project manager. This is important as the applicant's account is connected to the project and reporting of the project.

Signatures from the project manager, the project owner and the vice chancellor are required. The project manager's signature implies responsibility for described implementation. The project owner and the vice chancellor assure through their signatures that the university approves the project and will be involved according to the project description.

Applications should be written in English to enable international peer review.

The applicant is requested to suggest two international peers in the application form who are qualified to evaluate the application and assessed as free from conflict of interest.

In the application form, enter the city and postcode for the place where each participating company will conduct the main part of its co-production (i.e., not necessarily the place for the head office).

The project budget is filled in directly in the application form. Note that the application should not include overhead costs.

Appendices to the application

The following appendixes (as pdf-files) should be attached to the application and in the same order as below.

Appendix 1. Description of host research and education environment and project contribution (may not exceed 3 pages)

To be uploaded under 'Description of host research and education environment and project contribution'.

This appendix should be written jointly by the head of the research and education environment and the project manager. The nature and scope of the description and the development plan will vary depending on the stage the environment has reached in its development journey. For example, new or early-stage environments do not need to report results going back five years if this is not feasible. Instead, these should describe the results relevant to the current situation of the environment.

1.1. The research and education environment (or environments) in which the project will be run

Describe the environment in terms of the parameters that best illustrate the ambition, current situation, challenges and plan.

³ When the application concerns an artistic field of research, the concept *scientific* is replaced by *artistic* in the call.

a) Ambition - what is to be achieved in the ongoing development of the environment, objectives?

b) Current situation - area of activity, research groups, research focus, education focus, staff composition, funding, collaborative and business partners, etc.) and results for the last five years (scientific output, development of courses, capacity building, funding, etc.)

c) Challenges - what are the most important development needs that must be addressed for the development of the environment? Take into account education, research and collaboration with the business sector.

d) Plan - how is the ambition to be achieved, strategy?

1.2. Added value of the project for the research and education environment

Describe how the proposed project adds value for the research and education environment and enhances its development in line with the stated ambition and plan. Indicate in particular how the project will help to strengthen and/or develop the research and/or education concerned, and the cooperation with the business sector. Also describe how the project will add value given previous and ongoing projects.

Appendix 2. Project plan (may not exceed 30 pages)

To be uploaded under "Project plan".

1. *The focus of the Graduate School and the addressed needs, scientific as well as industry-related*
 - 1.1. Describe the research field that the graduate school is addressing and the applicant university's position within the field from a national and international perspective.
 - 1.2. Describe and motivate the research questions addressed in the project and how these relate to state-of-the-art.
 - 1.3. Describe the Graduate School's significance for the university's development of research and doctoral education.
 - 1.4. Describe the relevance of the Graduate School and its focus to the business sector.
 - 1.5. Describe the participants' contribution to the project and how these are complementary in terms of competence.
2. *Expected results and effects*
 - 2.1. Describe the university's goals for the graduate school, if possible, time-specific and quantitative. The objectives should be based on the following perspectives:

8. *Project staffing*

Describe and motivate the staffing of the project. It should appear how much time key personnel are to participate in the project. The supervision capacity of the Graduate School should also be made clear.

9. *Project budget*

Describe and motivate the estimated costs in the budget. Work efforts from persons accounted for in the budget should be described. Specify how large part of the budget that is allocated for the operation of the Graduate School. Describe the co-financing from the companies

Appendix 3. Qualifications (may not exceed 2 pages per person)

To be uploaded under “Attachments in accordance with the call and in the same order as stated in the call.”

CVs from key individuals from both the university (project manager and researchers) and the business partners. CVs exceeding 2 pages will not be considered in the evaluation.

Appendix 4. Letter of intent from participating companies

To be uploaded under “Attachments in accordance with the call and in the same order as stated in the call.”

Companies/research institutes that have confirmed their participation in the Graduate School must document this with a letter of intent. The letter must describe the company’s commitment (incl. financial commitment), role and contribution as well as the company’s motives and value for participation in the project. The application must include letter of intents for at least 60 percent of the doctoral students. The letters of intent should either be signed manually or electronically signed by for example eduSign, GetAccept, ebox or similar systems. Letters of intent without correct signatures will not be considered.

Appendix 5. Signatures from the university (appendix form)

To be uploaded under “Attachments in accordance with the call and in the same order as stated in the call.”

The application must be signed by the project manager, the project owner, and the vice-chancellor. Download the appendix template from the Foundation’s website,

www.kks.se. The signature appendix should either be signed manually or electronically signed by for example eduSign, GetAccept, ebox or similar systems. Applications without correct signatures will not be considered.

Timetable and decisions

- A university that plans to apply for funding is advised to contact the programme manager well before the application deadline to discuss the prerequisites for an application.
- The Knowledge Foundation must receive the application no later than 3 p.m. (15:00) on 2022-09-08.
- All applications will be reviewed for compliance with formal requirements. Applications failing to meet the formal requirements will be rejected.
- International peers will review the scientific quality of applications.
- A hearing with the applicants will be held in November 2022.
- The external evaluation panel will submit its recommendation to the CEO of the Knowledge Foundation.
- Funding decisions are made by the board of the Knowledge Foundation and applicants will be notified in December 2022.
- Granted projects may commence after agreement signing, earliest by 2023-03-01 and latest by 2023-10-01.