
CALL FOR PROPOSALS

Industrial Graduate Schools 20

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 environments at the university and develop expertise in the business sector and strengthen long-term competitiveness.

If you have questions, please contact:

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We require your application
no later than 3 p.m. (15:00) on
8 September 2020

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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. We provide funding when activities are conducted in collaboration between academic staff and business sector 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 calls are open for all scientific and artistic research fields.

Purpose and objective of the programme

Purpose

The programme aims to provide the university with the opportunity to establish graduate training programmes that. Thus, the programme can contribute to meeting the business sector's needs for research expertise in relevant and well-defined areas via co-produced PhD training programmes as well as to increased exchange between universities and companies.

Objective

The objective of the programme is to provide the Swedish business sector with qualified personnel with a doctoral education. It should also contribute to strong research and education environments that can profile the university.

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.

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.

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 institute². 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 at the university and at the company.

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 approx. two years, and under the condition that the graduate school is found to be well established, the university has the opportunity to 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.

² RISE, Swerim, FOI, IVL and VTI

Funding from the Knowledge Foundation is disbursed over a 6-year period (for Stage 1). The study time of each doctoral student should be planned to a maximum of 5 years.

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. 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.

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.

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 Swedish 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 % of the funds requested from the Knowledge Foundation. However, it need not be 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.

The funds applied for should not include overhead costs. This will be calculated and included in the proposed contract upon approval of the application.

Budgeting of funds must comply with the instructions presented in the document “Guidelines on Approved Expenditures” (see www.kks.se).

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 project plan and budget.

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

Business sector involvement

Projects must be co-produced with business partners which means that the academic and business actors, from their respective perspectives, together formulate and address a scientific 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.

By *business sector*, the Knowledge Foundation refers primarily to

private companies. 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 private companies. This means that public subsidies or fees may not constitute a significant part of the company's revenues. None of the organisations may be solely administrative enterprises. Primarily they must produce goods or services. The companies must operate in Sweden to the extent that their input provides value for co-production and they have the potential to integrate the results from co-production into their organisation here.

The application must describe and explain the contributions from the business sector. For companies with fewer than 10 employees or less than SEK 10 million in annual turnover (based on the most recent annual report), the potential for co-production in the project must be very clearly described.

If any economic or personal links exist between the involved companies, between any company and the university, or between any company and individual researcher(s), this must be disclosed. The project plan must clearly indicate any personal conflicts of interest, and the individual's various roles in the company or the university must be fully described.

Formal requirements

An 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 purpose and objective of the call.
- The applicant university must be authorized to award postgraduate degrees in the field addressed by the Graduate School.
- Funding from the Knowledge Foundation is disbursed over a 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.

- Business partners who are co-financers must fall within the Knowledge Foundation's definition of *business sector*.
- The application should include letters of intent from companies corresponding to at least 60 % of the doctoral students for the planned Graduate School.
- Costs for the operation of the graduate school should amount to 25-30 % of the funds requested from the Knowledge Foundation. However, it need not be 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 economic or personal conflicts of interest among the partners in the project must be disclosed (see above).
- Budgeting of funds must be in accordance with the instructions presented in the document *Guidelines on Approved Expenditures* (see www.kks.se).
- The earliest starting date for the project is 2021-03-01. The latest starting date for the project is 2021-10-01.
- The application must be signed by the vice-chancellor, the project owner and the project manager.

Evaluation

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

International peers will review the scientific quality of the graduate school in question. An external evaluation panel will meet representatives of the proposed Graduate School at a hearing. After the meeting the panel will submit its recommendation to the Foundation's General Manager. Funding decisions are made by the board of the Knowledge Foundation.

The evaluation process does not allow for additional material to be submitted after the deadline for application submissions.

Evaluation criteria

Scientific quality⁴

- 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?

Expected results and effects

- To what extent is the direction and implementation of the graduate school important to the university?

In relation to the building of integrated environments:

- To what extent is the graduate school expected to contribute towards advancement of the research environment?
- To what extent is the graduate school expected to contribute towards advancement of the education environment?
- To what extent is the graduate school expected to promote closer collaboration between the research and education environment and the business sector?

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?

⁴ If the application concerns artistic research, scientific is replaced by artistic.

Application

Applications are submitted via the Knowledge Foundation's website, www.kks.se.

Signatures from the project manager, the project owner and the vice-chancellor are required. The project manager's signature means that she or he is prepared to take responsibility for the described implementation according to stated project plan. 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, qualified to evaluate the application. The applicant must assert that suggested peers are free from conflict of interest.

The project's budget is to be filled in in the application form. Note that the application should not include overhead costs.

The appendices of the application are the following and should be allocated in the following order:

1. **The graduate school's host academic environment** (not exceeding 2 pages):

Upload under "Host research and education environment"

Describe the academic environment, including both research and education so it is clearly outlining its current situation, its aspirations and the way forward: your development needs, strategies and ambitions with regard to research and education in collaboration.

- Current situation and development needs
 - aspirations and strategy
 - main results of the past few years
 - personnel composition
 - financing
 - collaboration partners (academic and non-academic).
2. **The graduate school's expected contribution to the research and education environment** (not exceeding 1 page):

Upload under “Host research and education environment”

Describe the strategic value of the proposed graduate school by demonstrating how it will support the development of the academic environment in line with aspirations for collaborative research and education.

3. Project plan, with the following disposition and headings
(not exceeding 30 pages):

Upload under “Attachments in accordance with the call and in the same order as stated in the call.”

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: the doctoral students; the development of research and education environments and the contribution to scientific development and positioning; co-production; other.
 - 2.2. Describe overarching goals for the business sector.
3. *Implementation of the project*

Describe the planned activities in the Graduate Scholl, such as recruitment of doctoral students, joint activities, organization of supervision, courses including development of new courses, publication strategy, internationalization strategy. Also describe how the Graduate School will, based on the individual doctoral student projects, identify and address common research questions and results. Include a risk analysis to identify obstacles/pitfalls.

4. *Leadership and organization*

Describe the leadership and organization of the project: e.g. project management, administrative support and steering group. A majority of the steering group/board (in total 5-7 persons), including the chairman, is to come from the companies and the others from academia. One doctoral student should be included in the steering group/board. Describe the different parties' roles and responsibilities.

5. *Company participation*

State which companies are expected to participate in the Graduate School and their roles, contributions and needs.

6. *Timetable*

Describe the overall timetable for the Graduate School.

7. *Planned doctoral student projects*

Describe planned doctoral student projects in table format with the following information:

Doctoral student (name or NN)	Project	University	Company	Employer	Planned study pace	Environment, Institution, Third cycle subject-area	Progression at start (e.g. lic or equivalent)	Planned degree (lic a/o PhD)

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.

4. **Qualifications** (not exceeding 2 pages per person)

Upload 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.

5. **Letters of intent**

Upload 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 (LoI). The letter must describe the 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 LoIs for at least 60 % of the doctoral students.

6. **Signatures from the host university** (appendix form)

Upload under “Attachments in accordance with the call and in the same order as stated in the call.”

The application must be signed by the vice-chancellor, the project owner and the project manager. The form for signatures can be downloaded from where you apply, at www.kks.se

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 conditions for an application.
- The Knowledge Foundation must receive the application no later than 3 p.m. (15:00) on 2020-09-08.
- Applications will be reviewed for compliance with formal requirements. The General Manager of the Knowledge Foundation will determine whether an application should be rejected due to non-compliance with formal requirements no later than 2020-10-01.
- International peers will review the scientific quality of applications during October.
- A hearing with the applicants will be held in November 2020.

- The external evaluation panel will after the hearing and evaluation meeting submit its recommendation to the Foundation's General Manager.
- Funding decisions are made by the board of the Knowledge Foundation and applicants will be notified in December 2020.
- Granted projects may commence after agreement signing, earliest 2021-03-01 and latest at 2021-10-01.