Guidelines for Industrial PhD
Effective as of 20 January 2017

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1. What is an Industrial PhD?
An Industrial PhD is an industrially focused research project which is conducted jointly by a private sector company, an Industrial PhD student and a university. The Industrial PhD student is employed by a company in Denmark and at the same time enrolled at a university. The student divides her/his working time between the company and the university, and spends all working time at both places on the project and on the education. The project duration corresponds to the duration of the education, which in Denmark is three years.

Combined, Industrial PhD and Industrial Postdoc comprise Innovation Fund Denmark’s Industrial Researcher Programme and contribute to the Fund’s overall purpose of creating growth and employment in Denmark. The Industrial Researcher Programme has the following specific purposes:

• To educate and develop researcher talents into industrial researchers
• To contribute to business-oriented innovation and development in Denmark
• To strengthen the collaboration between Danish companies and universities at home and abroad

The Fund finances part of the student’s salary and travel expenses in the company as well as the university’s supervision, equipment and other expenses for the student’s education.

The Industrial PhD student has a supervisor at both the university and the company, and a co-supervisor at the company.

2. Who can apply?
An Industrial PhD project includes a company, a university and an Industrial PhD student, and should be considered a collaboration. The parties must divide the student’s time in a way that fits the project and creates a relation with both the company and the university. The following formal requirements apply to the parties:

The company must:

• Have a division geographically located in Denmark where the student is to be employed
• Be able to provide facilities and financial support for the project for the entire project duration
• Be financially independent of the university
• Assign a company supervisor and co-supervisor to the project
• Be part of the private sector
  – To be part of the private sector, the company must:
    1. Be neither a state, regional or municipal authority nor a professional body for public sector organisations
    2. Have public funding make up no more than half its revenue (including payments from citizens as imposed by law)
If in doubt on whether an organisation is part of the private sector, you can ask the Fund to assess the organisation by sending its articles of association and the latest annual financial report to erhvervsforsker@innofond.dk.

The company must assign both a supervisor and a co-supervisor to the project. The supervisor is the project’s formal company representative and works together with the PhD student and the university supervisor on carrying out the project and the education. The company supervisor is responsible for the industrial supervision of the candidate. The co-supervisor ensures anchoring and implementation of the project, e.g. if the company supervisor changes jobs. It is possible to assign more co-supervisors and third parties.

As company supervisor and co-supervisor you must:
- Have general experience with the project subject (research experience is not necessary)
- Have extensive business sector knowledge
- Have an education at least at bachelor’s degree level or considerable experience with the subject

The company supervisor and co-supervisor do not have to be employed by the company, but must work in the private sector on a daily basis.

The university must:
- Be a university or institution of higher learning in Denmark or abroad officially authorised to conduct PhD training
- Assign a university supervisor to the project

The university must assign a supervisor who works together with the student and the company on carrying out the project and the education. The university supervisor is responsible for the academic supervision of the candidate.

As a university supervisor you must:
- Be an acknowledged researcher within the project field
- Work in a research environment within the project field on a daily basis
- Be employed at the university and attached to the PhD school
- Have experience with and positive results as a PhD supervisor. Alternatively as a researcher without supervisor experience, be able to document a significant research profile within the field

As an Industrial PhD candidate you must:
- Have a project relevant master’s degree
- At least have attained a grade of 10 (Danish scale) for any final thesis/examination project
- Meet one of the two levels for grade point averages:
  A) For the master’s and bachelor’s degrees combined:
     A weighted average of at least 8.2 on the Danish 7-step scale or 9 on the Danish 13 scale
B) For a Danish two-year master’s degree alone:
   A weighted average of at least 9.5 on the Danish 7-step scale or 9.4 on the Danish 13 scale

As a point of departure, the candidate needs a Danish two-year master’s degree or a non-Danish master’s degree. A Danish one-year Master education will not qualify directly. However, if the candidate has research experience to supplement the Master education, this may compensate and qualify the candidate. This can be determined by a pre-assessment as described in section 2.3. A Danish one-year Master education without a prior bachelor’s degree cannot in itself qualify for an Industrial PhD education.

It is possible to apply with a candidate whose final thesis has not yet been graded. If the candidate meets all other requirements, approval can be given on the condition that the candidate attains a grade of at least 10 for the thesis.

Non-graded candidates must submit a statement or written assessment of the final examination project.

2.1. Exemption from grade requirements
A candidate with a slightly lower grade average or thesis grade than required can be approved if the candidate has other relevant qualifications. In order of priority, these are:

- Peer-reviewed articles published in acknowledged scientific journals or other relevant research experience
- Significant professional experience with the project subject
- Improved grades during the education or high grades in project relevant subjects

The qualifications are assessed relative to how far the candidate is from the required grade averages and how relevant the qualifications are for the project.

2.2. Grade requirements for non-Danish educations
An Industrial PhD candidate with a non-Danish education does not have to meet a certain grade requirement. Instead, the candidate must be among the top 30 pct. in the graduation class for the study programme for the master’s and bachelor’s degrees combined. The application must include documentation for the ranking of the candidate. The documentation must be certified by the institution where the education was carried out.

2.3. Preliminary assessment
If a candidate does not meet the grade requirements, but might have compensating qualifications, Innovation Fund Denmark can carry out a preliminary assessment based on the candidate’s CV, complete exam diplomas and a filled-out grade calculation form. The documents must be submitted to erhvervsforsker@innofond.dk.

The grade calculation form is available at www.erhvervsforsker.dk. If you have a non-Danish education, you must include documentation for your placement in the graduation class of your study programme (see section 2.2). The preliminary approval will always be given on the basis of your professional qualifications and on the condition that they match the project for which
an application is subsequently submitted. Please note that it may take up to six weeks before you receive a decision regarding your request for a preliminary approval.

2.4. Several companies in one Industrial PhD project and third parties
It is possible for several companies to work together on an Industrial PhD project. It will be assessed if the companies combined have the financial means to run the project. One of the companies must be the designated co-ordinator for the project and accordingly be the official applicant, employ the candidate, pay out salary and receive subsidies from the Fund.

2.5. Employment in a company in Greenland or on the Faroe Islands
Normally, the Industrial PhD candidate must be employed in Denmark. However, in 2015-2017 it is possible to have the candidate employed in Greenland or on the Faroe Islands. DKK 1.7 million is allocated annually for qualified applications from Greenlandic or Faroese companies.

3. What is financed?
Innovation Fund Denmark will finance part of the company’s expenses for the student’s salary and travel activities plus the university’s expenses for the project.

3.1. Subsidy to the company
Innovation Fund Denmark will finance up to DKK 17,000 per month of the Industrial PhD student’s salary for three years, but no more than 50 pct. of the gross salary (gross salary equals salary plus pension contributions).

The company will have DKK 100,000 at disposal for the Industrial PhD candidate’s:

− Travels (project relevant conferences at home and abroad and stays at non-Danish universities and companies)
− Participation in PhD courses which give ECTS credits and are not offered by the host university

This includes a single round trip to the destination, visa, travelling insurance, lodging and university fees. Food, daily/local transportation, books etc. are not covered.

Up to DKK 5,000 of the DKK 100,000 can be used for the company supervisor’s project relevant travel expenses. Another DKK 5,000 can be used for the university supervisor’s project relevant travel expenses.

For approved applications submitted before 9 March 2015, the salary subsidy is DKK 14,500 while the subsidy for stays at home and abroad is DKK 137,000. Out of this amount, the company and the university supervisor may each spend DKK 7,000 on project-relevant travel expenses.

For Industrial PhD candidates who are enrolled at a university located in a different country than the company for the entire education, a further amount of up to DKK 122,000 will be available for travels and stays at the university. This includes round trips to the destination, visa, travelling insurance and lodging. Food, daily/local transportation, books etc. are not covered.

The company must pay all other expenses for the project, including equipment, materials and data collection. This also includes personal equipment for the Industrial PhD candidate, e.g. laptop, mobile phone, etc.
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In case of additional public financing for the company, please note that no more than 50 pct. of a company’s overall expenses for an Industrial PhD project may be financed by public means. Read more in appendix 1.

3.2. Subsidy to the university

Innovation Fund Denmark provides a fixed amount to the university, covering:

- Supervision of the Industrial PhD student
- The Industrial PhD student’s work facilities at the university, including acquisition and/or use of equipment necessary for carrying out the university part of the project
- The Industrial PhD student’s participation in relevant PhD courses (at the host university or other universities)
- Assessment of the PhD thesis
- Dissemination of results, including printing the thesis

The amount for Danish and non-Danish universities for the three-year period is, incl. overhead:

- DKK 360,000 for projects within the technical, fundamental, agricultural, veterinary and health sciences
- DKK 252,000 for projects within humanities and social sciences

If the project runs for more than three years, e.g. in connection with a non-Danish PhD education, the Fund will finance up to DKK 17,000 a month for the company for the last three years of the project. Likewise, the university will receive its subsidies for the last three years of the project period.

4. How to apply

In the application to Innovation Fund Denmark you must describe the Industrial PhD project and the participating people and organisations. A company and a university can apply without a specific Industrial PhD candidate. If the application is approved, a qualified candidate must be found within six months.

The application must include a high quality project description that describes the research project and the project participants. The template for the project description includes instructions on the contents of the individual sections and is available at www.erhvervsforsker.dk.

The project can be within any research field, as long as the project’s research quality and the direct or indirect short or long term business potential and effect can be argued convincingly.

The application deadlines are continuously determined and announced at www.erhvervsforsker.dk. The Fund must receive the application before 12 noon on the closing
date unless otherwise indicated on the website. The application and all communication must be in Danish or English, or a combination.

The application is submitted to the Fund via www.e-grant.dk. The company supervisor must initiate the application in e-grant. The university supervisor and the Industrial PhD candidate must also register at www.e-grant.dk, and after the application has been generated, the company supervisor must attach them as participants in the application. This is necessary in order to process the application.

Read more at www.erhversforsker.dk on how to submit an application and what information and appendices it must contain. If information is missing or the wrong appendix templates have been used, the Fund may administratively reject the application.

5. How the application is assessed

The application is assessed by the Industrial Researcher Committee, which consists of research and business experts within all main fields of research. The Committee may decide to ask for external assessments where additional research competences are needed for the assessment. The Committee and the external assessors are subject to a duty of confidentiality.

Applications are processed within two months. The Committee may decide to ask the applicant for additional information for the assessment. If so, processing time may exceed two months.

The Committee makes a recommendation to Innovation Fund Denmark, where the Board makes the final decision.

5.1. Criteria

The application is assessed on the basis of the following criteria:
- Research quality
- Commercial significance and effect
- Project implementation

Research quality
Generally, the project must be at PhD level, and it must be realistic to complete within the project period. The research quality of the project is specifically assessed with regard to:
- The novelty value of the research
- The quality of the description of state-of-the-art within the subject area
- The relevance and level of the theoretical foundation
- The quality of hypotheses/research questions
- The relevance and clarification of selected methods and data basis

Commercial significance and effect
The project must have a clear significance for and effect on the Danish company’s business and will be specifically assessed with regard to:
- The results’ expected contribution to the company’s business foundation and/or revenue
- Plan and probability for implementation and commercial realisation of the results
Project implementation
The application must demonstrate that the project is well-organised, and that the parties are competent and relevant. The following will be specifically assessed:

- The organisation and feasibility of the project (including structure and time schedule, distribution of roles, the student’s time allocation, communication and publication plan)
- That the project involves the student in both the company and the university
- The quality of the project parties’ qualifications

5.2. Decision
An Industrial PhD application can be approved, conditionally approved, or rejected. An approved Industrial PhD project officially begins on the date of the student’s enrolment into the university’s PhD programme. The date of enrolment must be on or after the date of approval.

Conditional approval
If a project is conditionally approved, a decision describing the conditions for final approval is added to the case in e-grant when processing is done. If e.g. you have applied without a named candidate, a condition will be that you find a qualified candidate. Documentation that the conditions are met is submitted to the Fund via e-grant. If the Fund finds that the conditions have been met, the project can begin. The conditions must be met within six months of the decision.

Rejection
If a project is rejected, a rejection stating the reasons for rejection is added to the case in e-grant after processing is complete. It is possible to reapply at the next application deadline. When reapplying, you must clearly describe how the reasons for rejection have been addressed. All application material, incl. new signatures, must be resubmitted when reapplying.

The Fund will make public the title, abstract and participants of approved and conditionally approved applications at www.innovationsfonden.dk. Accordingly, applicants should make sure that the title and abstract do not contain any confidential information. If the conditional approval concerns an application without a candidate, this is also made public.

5.3. Project start-up and follow-up
Kick-off meeting
Upon approval of the application, the company supervisor, the university supervisor and the Industrial PhD student must participate in a kick-off meeting arranged by Innovation Fund Denmark. The kick-off meeting will be held after each round of applications with the purpose of preparing the project partners for a good collaboration. Read more about the kick-off meeting at www.erhvervsforsker.dk. Supervisors who live abroad are not obliged to participate.

Project follow-up
The university supervisor and PhD administration ensure the ongoing academic follow-up on the project, and the company supervisor ensures the anchoring of the project in the company. The Fund’s follow-up accordingly focuses on the collaboration, results and effects.
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1-1½ year into the Industrial PhD project, the student must answer a questionnaire on status and collaboration internally in the project. The answers are to give the Fund insight into Industrial PhD project collaboration practices. The Fund may also arrange follow-up meetings with selected projects to learn more.

At the project’s completion, the company must fill out an evaluation form about the project’s effects, results and process. The last payment by the Fund to the company depends on the completion of the evaluation.

The Fund is not to receive any other academic reporting during the project. The Industrial PhD student’s attainment of the PhD degree serves as documentation that the project has met the research and educational requirements of a PhD education.

6. The Industrial PhD student’s terms of employment and education

6.1. Employment

In an Industrial PhD project, the company hires the student, who is thus subject to terms that apply to private employment. The student’s work tasks and time must be devoted exclusively to the Industrial PhD project and Industrial PhD education, and the student’s employment contract must explicitly free up the student from tasks that are not directly project related. Also, the student’s time must be divided between the company and the university in a way that fits the project while involving the student in both working environments. As a minimum, the employment must be on ordinary terms for salaried employees. Other terms follow any collective or individual agreements.

Any non-competition clauses or similar in the employment contract must not limit the student’s possibilities for employment elsewhere. Likewise, the contract must not contain educational clauses or similar requiring the student to reimburse the company’s expenses for the education if the education is discontinued, or if the student changes employment after completing the Industrial PhD project.

6.2. Salary

The Industrial PhD student’s gross annual salary (the sum of salary and pension) must as a minimum correspond to the overall salary of the collective agreement for PhD fellows employed by the Danish state. The salary levels can be found at www.erhvervsforsker.dk or on labour union websites. Questions about specific salary levels can be made to labour unions.

6.3. IPR and publication

The Industrial PhD student is subject to the provisions of the Danish Act on Employee Inventions while supervisors at universities and other public research institutions are subject to the provisions of the Danish Act on Inventions at Public Research Institutions.

IPR is especially relevant for the student’s publications in connection with the PhD education. The Industrial PhD programme does not regulate agreements on IPR and publishing, and questions about intellectual property rights and publication should be resolved internally in the
for IPR agreements, the fund’s industrial PhD model agreement may serve as inspiration. Find the model agreement at www.erhvervsforsker.dk.

6.4. Dissemination requirement
All Danish PhD programmes require students to gain experience in knowledge dissemination related to their PhD project, cf. the Danish PhD Executive Order part 3, § 7. The dissemination can consist of articles, presentations, teaching and other ways of exchanging knowledge at the company, university or elsewhere. The company, the student and the university determine the extent, type and content of the knowledge dissemination.

Industrial PhD students are not employed at the university and accordingly do not have any teaching obligations as per any collective agreement. However if all project parties agree, teaching at the university can be part of the knowledge dissemination. All project parties should agree on any dissemination activities.

6.5. Courses
In a Danish PhD education, the student must follow PhD courses corresponding to 30 ECTS. Course participation are to be considered part of the student’s work hours.

6.6. Leave
The company may request that the Fund approves a leave of absence for the Industrial PhD student. The Fund must approve the request before the leave can commence. The Fund does not provide subsidies during periods of leave, incl. paternal and sick leave. If the company receives reimbursement from another public authority due to the student’s long term illness, it must apply for leave from the Industrial PhD project. The application is submitted via e-grant (see section 7).

6.7. Completion of the Industrial PhD project
The university approves the entire PhD education and confers the PhD degree once the PhD thesis has been accepted and defended in public. If the student is enrolled at a non-Danish university, this university must confer the PhD degree in accordance with the national provisions of the country in question.

The university appoints the PhD Assessment Committee. At a Danish university, the PhD Assessment Committee must include at least one person with industry relevant research experience within the research field, cf. the Danish Executive Order on PhD Programmes, Part 11, § 27.

Upon a successful defence, the Fund will issue an Industrial PhD certificate to the student. To issue the certificate, the Fund must receive a copy of the final PhD degree via e-grant.
6.8. If an Industrial PhD project is discontinued

If an Industrial PhD education is discontinued, the project participants must jointly provide a written account for the process and the reasons for discontinuation. The account must be signed by the company, the university and the student and submitted to the Fund within three months after the date of discontinuation.

The company may be required to repay any subsidy received if it breaks off or prevents the planned execution of an Industrial PhD education which the university and the student are still interested in and capable of continuing. The Industrial PhD student is likewise obligated to carry out the work tasks agreed upon in the application.

7. Administration of an approved project in e-grant

If the project is approved, the Fund will create a grant case at www.e-grant.dk, which you also used to submit the application. You submit accounts, reports and other written documents to the Fund via e-grant, depending on your obligations in the project. You also request project changes and write to the Fund via e-grant.

7.1. Payments and audit

Subsidies to the company and the university are paid out in advance. A small part is retained and paid out at the end of the project.

The company

The company receives 85 pct. of the overall company subsidy when the project commences. The company receives the subsidy via the NemKonto (Easy Account) attached to the company’s CVR No. (company registration number).

The company receives the last part of the total subsidy at project end when the Fund receives:

- The final financial project report
- An audit statement
- The company’s final assessment

The final financial project report must show how much subsidy the company has used throughout the project. The Fund will then settle with the company. Please note that this means that the company at project end may have to repay some of the advance subsidy payment from the Fund.

The university

The university receives 85 pct. of the university subsidy at the project’s commencement. The remaining 15 pct. is paid out when the Fund has received documentation for the Industrial PhD student’s attainment of the PhD degree. If the Industrial PhD student does not attain the PhD degree, the last 15 pct. is annulled.
7.2. Duty to disclose and approval of changes
The company and the university must inform the Fund immediately if there are any material changes in the foundation for payment of subsidies. This includes e.g. supervisor changes, leave of absence, major disruptions or delays, or significant scientific changes. Significant scientific changes are changes of a magnitude that mean the project cannot be immediately recognised as the project originally approved.

The project can only continue if and when the Fund approves the changes. If the duty to disclose all material facts is not upheld, the Fund may decide to cancel the subsidies and require repayment of any paid out subsidies.

The change request is submitted via e-grant.
Appendix 1: Legislative and Regulatory Framework

RRI and the Danish Code of Conduct for Research Integrity
Innovation Fund Denmark emphasises Responsible Research and Innovation (RRI) which aims to strengthen the connection between research and innovation processes and results and the values and needs of society. The Fund promotes RRI in its overall strategies and via projects, and the Fund adheres to the EU Commission’s definition and implementation of RRI.

The Fund also supports the principles described in the Danish Code of Conduct for Research Integrity. The Fund expects that the projects it invests in adhere to the guidelines of RRI and the code of conduct. The code can be read here: The Danish Code of Conduct for Research Integrity

Open Access
Innovation Fund Denmark has accepted the regulations in the ‘Open Access policy for public research councils and foundations’. This means that publicised scientific articles that are the result of complete or partial funding from the Fund must be made publicly available for everyone via Open Access, if so permitted by the journal.

The full policy is available at: Open Access policy for public research councils and foundations

Legislative framework and transparency
Industrial PhD is authorised by the Danish Act No. 306 of 29 March 2014 on Innovation Fund Denmark. PhD education regulations in Denmark are regulated by the Danish Executive Order regarding PhD programmes at universities and certain higher educational institutions of art (the PhD Executive Order).

Applicants should be aware that information may be passed on to other parties if they apply for right of access in accordance with the Danish Act on Public Information (in Danish: offentlighedsloven). Right of access may e.g. be given in the form of lists of the people who have applied, and for what (applicant names, application titles and amounts applied for). With regard to the applications themselves, the Fund will – in close dialogue with the applicant (incl. companies etc.) - ensure that business sensitive information is not passed on nor any other information which cannot be passed on according to the law.

Co-financing and EU requirements
The Industrial PhD programme is administered in accordance with article 25 of the European Commission's General Block Exemption Regulation. This means that up to 50 pct. of a company’s total expenses (called the ‘eligible costs’ by the Commission) for an Industrial PhD project may be financed by public means.

‘Eligible costs’ are expenses for personnel, equipment, buildings, materials, purchased knowledge, consulting advice and other operating costs incurred directly as a result of the research activity, cf. detailed definition in article 25 (3) of the Commission’s General Block Exemption Regulation (attached as an appendix).

Thus, if the Fund’s subsidies make up less than 50 pct. of these costs, it is possible for other public authorities to provide further subsidy as long as the 50 pct. limit is not exceeded.
The Fund can subsidise an Industrial PhD project which is a subproject of other publicly subsidised research projects, as long as the total public subsidies for the company’s eligible costs for the Industrial PhD project do not exceed the 50 pct. limit.

In case of additional public co-financing, there must be a documentable financial boundary between the Industrial PhD project and other activities receiving public subsidies in order that the company’s auditor can certify that the co-financing limit of 50 pct. is not exceeded. There are no boundaries for private co-financing of Industrial PhD projects in the private or public sectors.
Appendix 2: The European Commission’s definition of ‘eligible costs’
– with regard to public co-financing of Industrial PhD projects in companies

COMMISSION REGULATION (EC) No. 651/2014
of 17 June 2014
declaring certain categories of aid compatible with the internal market in accordance with articles 107 and 108 of the Treaty (General Block Exemption Regulation)

Article 25
Aid for research and development projects
3. The eligible costs for research and development projects must fall within a specific category of research and development and include:
   a) Personnel costs: researchers, technicians and other supporting staff to the extent that they are working on the research project
   b) Costs of instruments and equipment to the extent and for the period it/they are used for the research project. If such instruments and equipment are not used for their full life for the research project, only the depreciation costs corresponding to the life of the research project, as calculated on the basis of good accounting practice, shall be considered eligible
   c) Costs for buildings and land, to the extent and for the duration it/they are used for the research project. With respect to buildings, only the depreciation costs corresponding to the life of the research project, as calculated on the basis of good accounting practice, shall be considered eligible. For land, the costs of commercial transfer or actually incurred capital costs shall be eligible
   d) The cost of contractual research, technical knowledge and patents bought or licensed from external sources, where the transaction has been carried out at arm’s length as well as costs of consultancy and equivalent services used exclusively for the project
   e) Additional overheads and other operating expenses, including costs of materials, supplies and similar products, incurred directly as a result of the project