Development and action plan for the PhD School
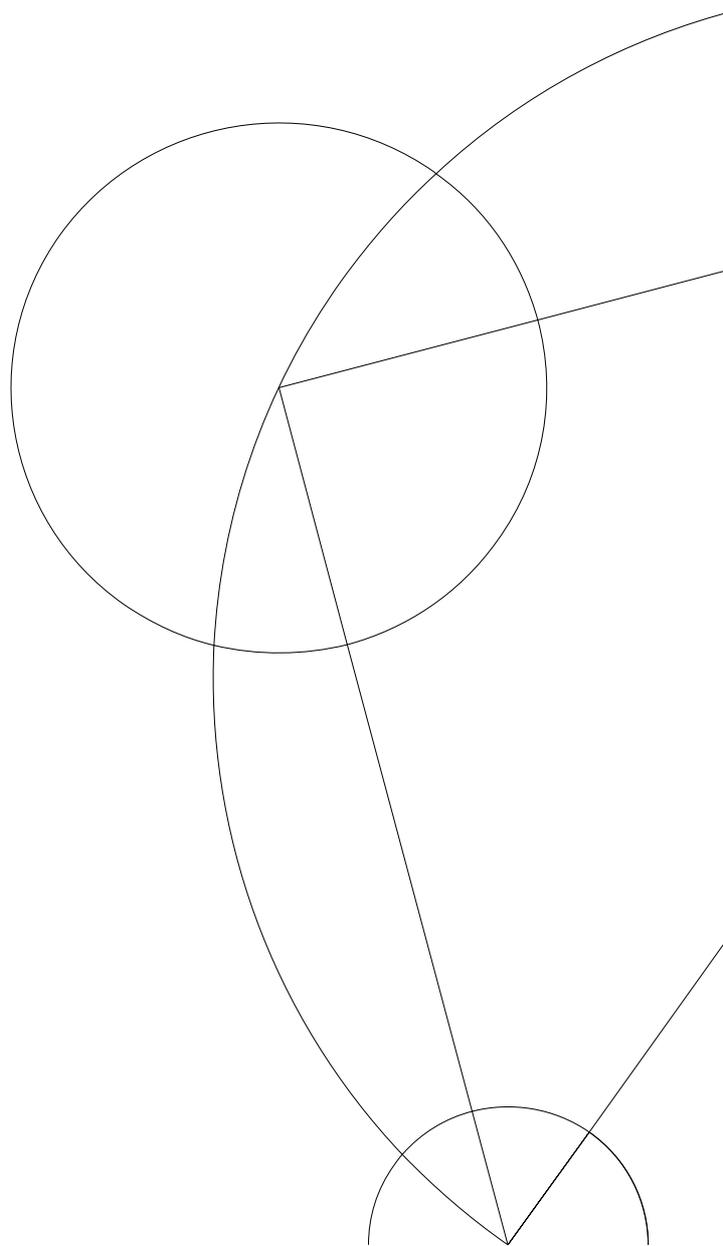
Faculty of Science (SCIENCE) 2014-2016

April 2014

Development and action plan for the PhD School

The PhD School organises training and education of researchers in all areas of science. Through competitive selection of candidates, highly qualified PhD supervisors and by providing the highest standard of PhD education, the school aims to attract the best candidates and to ensure the highest possible scientific level among the next generation of researchers.

In 2012, the PhD School at SCIENCE emerged as a result of a merger of two PhD schools. The process is now at a stage where it is relevant to look towards the future and present a development and action plan for the coming years.

The PhD school now includes 1100+ PhD students in the 12 departments at SCIENCE. Every year, the school welcomes some 330 new PhD students. Around 300 PhDs graduate and continue their career in national and international companies and research institutions. A strong focus on securing the high quality of the PhD programme at SCIENCE is therefore now more important than ever.

This plan especially draws on the recommendations given by the international panel that evaluated the PhD school in November 2012, but also includes recommendations from other documents and internal evaluations carried out over the last two years. The evaluation from the panel was, overall, very positive, and the recommendations for improvement were mainly related to the merger.

The recommendations have been grouped into the following 6 areas:

- ❖ Enrolment
- ❖ Employment after the PhD
- ❖ Courses
- ❖ Supervision
- ❖ Study Programme
- ❖ Infrastructure and Administration

Enrolment

The number of PhD enrolments at Danish universities has increased over a period of time. This is partly due to the government's focus on increasing enrolments to strengthen research activities in Denmark. The PhD School at SCIENCE aims to enrol 330 PhD students annually. The school therefore needs to focus on ensuring the continued high quality of the PhD projects and candidates.

Focus Area	Goal	Strategy / Action	Anchoring	Implementation
Advertising PhD projects	To ensure that the best qualified candidates apply for admission, the school aims to advertise PhD projects widely as well as to communicate them via researchers' local and international networks	▪ Encourage researchers to use their networks ▪ Apply new social media in recruitment ▪ Apply international media (when relevant)	Departments and PhD supervisor teams with support from SCIENCE HR and SCIENCE Communication	2015

Attracting the best candidates	To attract the best candidates nationally and internationally through a wide selection of attractive study structures and new initiatives.	▪ Continue to refine existing PhD schemes:
		  o 5+3 PhD
		  o 4+4 PhD
		  o Double degree
		  o Industrial PhD
		▪ Implement new study structures:
		  o 3+5 PhD
			PhD School	2014-2015

		▪ Explore new initiatives:
		  o Free scholarships
		  o ITN and ERC scholarships
		  o Screening grants
		▪ Enter into co-operation agreements with e.g. international universities
			Departments	2014-2015

Branding the PhD Programme	To attract highly skilled candidates and create an excellent reputation for	▪ Promote SCIENCE as a top research environment. ▪ Provide wider and better range of PhD	Departments, PhD School and PhD Students	2014-2016

		courses		
		▪ Expand and refine the PhD website via easy access to information, create a visual timeline, reader-friendly manuals ("pixi-bøger"), information directed at specific target groups: Potential applicants, PhD students, supervisors and department secretaries.		
our PhD students and graduates nationally and internationally		▪ Focus on recruitment (why PhD enrolment at SCIENCE? – top research environment, high salary/pension schemes, etc.)		
		▪ Further develop the Introduction Course with focus on personal development plans.		
		▪ Promote Copenhagen as a great living and study environment.		
		▪ Build an alumni network.		

Employment after the PhD

Growing competition in the labour market gives rise to increased focus on career planning and guidance in the PhD programme. It is important to consider the requirements of the national and international labour market, and to promote the special competencies of PhD graduates from SCIENCE.

Focus Area	Goal	Strategy / Action	Anchoring	Implementation
Branding the PhD Programme	To create an excellent reputation for our PhD students and graduates nationally and internationally	▪ Focus on employers (why hire a PhD graduate from SCIENCE?)	Departments and SCIENCE Private and Public Sector Services (EM)	2014-2016
		▪ Build an alumni network	UCPH, University Administration	2014-2016
After the PhD	To further strengthen the profile of the PhD graduates from SCIENCE	▪ Further strengthen and integrate career planning and guidance in the PhD programme (for instance better use of the PhD performance and development review (MUS). ▪ Create a liaison with existing informal PhD	PHD School and SCIENCE Faculty Secretariat (FS) Departments	2014-2016

	societies.	
	▪ Create a dialogue with employer panels, advisory boards and major stakeholders.	
	▪ Further develop the CareerLab.	
	▪ Prepare better statistics (employment after the PhD, graduate survey etc.)	
	▪ Produce branding material for employers (why hire a PhD graduate from SCIENCE?)	
	▪ Raise the profile of graduates from SCIENCE via Facebook/Alumni networks / website, etc.	

Courses

The PhD School aims to produce PhD graduates with research skills as well as complementary competencies by offering a broad selection of high-level scientific and generic courses.

Focus Area	Goal	Strategy / Action	Anchoring	Implementation
Scientific courses	To increase the number of scientific courses offered by the faculty.	▪ Implement incentives for arranging scientific courses. ▪ Look into the possibility of a survey to clarify the potential demand for more/new courses. ▪ Work to ensure that the course range offered to PhD students corresponds to the needs of students at SCIENCE (for instance by increasing the number of courses offered).	PhD School and departments	2014-2016
		▪ Investigate the possibility of setting a target number for courses held by the departments based on the number of PhD students at the department.	Faculty Research Committee (SFU)	2014-2016

Focus Area	Goal	Strategy / Action	Anchoring	Implementation
		▪ Market the PhD course range further (for instance to attract resources from people interested in continuing and further education as well) ▪ Support national and possibly European co-operation on the supply of scientific courses.	Departments SCIENCE Education	2014-2016
Generic courses	To maintain the number of generic courses	▪ Market the PhD course range further (for instance to also attract resources from people interested in continuing and further education)	Departments and PhD School	2014-2016
Attracting highly skilled course participants	To attract highly skilled participants for courses nationally and internationally through better targeted advertising	▪ Provide more top scientists to teach at courses ▪ Utilize summer schools to attract international students ▪ Advertise PhD courses internationally ▪ Investigate the possibility of online courses	Departments	2014-2016
National co-operation on PhD courses	To support and further existing co-operation agreements regarding PhD courses	▪ Encourage and further the national (Open Market), and possibly, European co-operation (NOVA etc.) regarding the supply of scientific courses.	Departments and PhD School	2014-2016

PhD Supervision				
Good supervision is based on a trustful relationship between the PhD students and their supervisor(s). It is crucial that students and supervisor(s) create an open dialogue on aspects of the PhD programme and align their expectations of the PhD study programme.				
Focus Area	**Goal**	**Strategy / Action**	**Anchoring**	**Implementation**
Supervision during the PhD study	To ensure the best possible supervision for PhD students at SCIENCE	▪ Focus on matching the expectations of student and supervisor(s)	PhD School	2014-2016

		• Focus on how to build the best possible PhD student-supervisor relationship based on, for instance, the advice in "To Lead the Way"	Departments and PhD School	2014-2016
		• Secure all-round supervision of students through supervisor teams / two or more supervisors per PhD student • Use the PhD coordinators actively in the supervision work by strengthening the relationship between PhD students and PhD coordinator(s) (for instance facilitate a meeting shortly after enrolment).	Departments and supervisors	2014-2016
Offering the best supervision	To strengthen the already highly skilled supervisors at SCIENCE	• Continue to offer a course for PhD supervisors and focus on the quality of the course.	UCPH, HR & Organisation, Courses	2014-2016

The PhD Study Programme				
The content and structure of the study programme is a framework for the PhD thesis and research. The programme ensures that students are acquiring the skills required for *writing the thesis and disseminating research results.*				
Focus Area	**Goal**	**Strategy / Action**	**Anchoring**	**Implementation**
Internationalization	To strengthen the international aspect of the study programme.	• Focus on implementing a stay abroad as part of the study programme for each PhD student. • Support and further an international network for each student.	Departments and PhD supervisor	2014-2016
		• Investigate the possibility of including explicit feedback in the assessment of the PhD theses on the international level and applicability of the PhD theses.	PhD school	2016

Dissemination and Teaching	To develop and support dissemination and teaching skills obtained during the study and to strengthen the reputation of PhD students at SCIENCE through the dissemination of research	▪ Ensure that duties of students at departments do not extend the number of hours stated in the employment contract.	Heads of Department	2014-2016
		▪ Strengthen and further the teaching skills of the PhD students, for instance by securing co-operation with skilled scientific personnel when teaching BSc and MSc courses. ▪ Ensure that students aim to disseminate their knowledge not only in scientific media but also in the broad media to secure a branding effect.	Faculty, departments and supervisor	2014-2016
Quality Assurance	To ensure the highest standard of PhD education and to use the tools of the programme for the benefit of the student.	▪ Use the PhD Plan more actively as a project management tool ▪ Use start-up and status seminars as milestones to ensure progress and follow up on each PhD student.	PhD students and supervisors	2014-2016
		▪ Use Progress Assessment Reports more actively to secure necessary progress in the study programme and as a means for early detection of potential problems.	PhD School, PhD students and PhD supervisors	2014-2016
PhD thesis writing	To secure the quality and utility of the PhD theses from SCIENCE	▪ Ensure that there is sufficient time allocated to working on the actual PhD thesis ▪ Encourage PhD students to write a thesis based on manuscripts/published papers.	PhD Supervisors	2014
		▪ Revise and improve co-author statements to simplify multi-authored, large-scale research publications	PhD School	2014

Infrastructure and administration

The infrastructure and administration behind the PhD programme, e.g. IT solutions, guidelines, etc., should support the PhD student research and ensure that relevant information is available when and where needed.

Focus Area	Goal	Strategy / Action	Anchoring	Implementation
Service level	To improve the service level for PhD students and staff at the faculty	▪ Further develop the service for international PhD students (e.g. via the International Staff Mobility office at UCPH)	UCPH/ISM	2014-2016
		▪ Develop the School website and the guidelines for PhD students to increase transparency	PhD School	2014
Conditions for PhD students	To secure the financial and employment-related conditions of PhD students	▪ Secure sufficient information regarding financial matters (for instance sufficient resources to support the PhD programme as described in the PhD plan) ▪ Secure the best conditions for PhD students, regardless of type and place of employment and type of study programme (5+3, 4+4, 3+5 etc.).	SCIENCE Management Team	2014

Improving IT solutions	To raise the service level for the stakeholders surrounding the PhD programme.	▪ Provide better management information systems (via Discoverer and other systems)
		▪ Improve IT solutions/online systems, e.g.:
		  o Online forms
		  o Self-service for PhD students, incl. recognition of basic data to avoid unnecessary repetition of data in the forms.
		  o Central course database
		  o PhD course administration system
		  o Electronic PhD course evaluation system
			UCPH, University Administration	2014-2016

Background material

- ❖ Annual PhD Workshop, PhD School of SCIENCE, October 2013

- ❖ Evaluation Panel, International Evaluation, November 2012

- ❖ Recommendations from the International Evaluations at UCPH, Fall 2012

- ❖ Seminar for heads of section on PhD education, November 2012

- ❖ Paper from work group during the merger, SCK project 2012-2013

- ❖ Task force report, LIFE, 2011