

## Decision Regarding Assessment of the Life Sciences Study Programme Group at the Level of Doctoral Studies

**Estonian University of Life Sciences**

**21/08/2018**

**The Quality Assessment Council for Higher Education at the Estonian Quality Agency for Higher and Vocational Education decided to approve the report by the Assessment Committee and to conduct the next quality assessment of the Life Sciences study programme group at the level of doctoral studies at the Estonian University of Life Sciences in seven years**

On the basis of subsection 10 (4) of the Universities Act and point 40.1 of the document ‘Quality Assessment of Study Programme Groups at the Level of Doctoral Studies’, authorised in points 3.7.3 and 3.7.1 of the Statutes of the Estonian Quality Agency for Higher and Vocational Education (hereinafter referred to as ‘EKKA’), the EKKA Quality Assessment Council for Higher Education (hereinafter referred to as ‘the Council’) affirms the following:

1. On 21.03.2017 the Estonian University of Life Sciences and EKKA agreed upon a time frame to conduct a quality assessment of the study programme group.
2. The Director of EKKA, by her order on 15.02.2018, approved the following membership of the quality assessment committee for the Life Sciences study programme group at the level of doctoral studies at the Estonian University of Life Sciences, Tallinn University, Tallinn University of Technology and the University of Tartu (hereinafter referred to as ‘the Committee’):

<b>Rik Leemans (Chair)</b>	Professor, Wageningen University, Netherlands
<b>Laurent Counillon</b>	Professor, University of Nice-Sophia Antipolis, France
<b>Markus Dettenhofer</b>	Executive Director, Central European Institute of Technology, Czech Republic
<b>Kari Keinänen</b>	Professor, University of Helsinki, Finland
<b>Owen Lewis</b>	Professor, University of Oxford, UK
<b>Hynek Roubik</b>	PhD student, Czech University of Life Sciences Prague, Czech Republic
<b>Andrus Tasa</b>	CEO, Tartu Biotechnology Park, Estonia

3. The Estonian University of Life Sciences submitted the following doctoral programme for evaluation under the Life Sciences study programme group:

**Environmental Sciences and Applied Biology**

4. The Estonian University of Life Sciences submitted a self-evaluation report to the EKKA Bureau on 16.01.2018 and the assessment coordinator forwarded it to the Committee on 12.02.2018.
5. An assessment visit was made to the Estonian University of Life Sciences on 11.04.2018.
6. The Committee sent its draft assessment report to the EKKA Bureau on 25.06.2018, EKKA forwarded it to the Estonian University of Life Sciences for its comments on 29.06.2018 and the University delivered its response on 9.07.2018.
7. The Committee submitted its final assessment report to the EKKA Bureau on 20.07.2018. That assessment report is an integral part of the decision, and is available on the EKKA website.
8. The Secretary of the Council forwarded the Committee's final assessment report along with the University's self-evaluation report to the Council members on 2.08.2018.
9. The Council with 10 members present discussed these received documents in its session on 21.08.2018 and, based on the assessment report, decided to point out the following strengths, areas for improvement, and recommendations regarding the Life Sciences study programme group at the level of doctoral studies at the Estonian University of Life Sciences.

**The Committee pointed out the following common areas for improvement and recommendations regarding the Life Sciences study programme group at the University of Tartu, the Estonian University of Life Sciences, Tallinn University of Technology and Tallinn University:**

- 1) Given that European Union funding is decreasing in the coming years and universities need more stable and sustainable funding, they should be more active in lobbying to increase their research and development funds to 1% of GDP.
- 2) Universities and their doctoral programmes need to increase their capabilities to ensure the critical mass of externally funded projects and also a higher success rate in applying for H2020, InterREG and ERC grants. Proactive activities by university grant offices would help to achieve this.
- 3) Despite the recent rise in stipends for doctoral students, they are still very low, leading to discontinuations of studies, decreased motivation and increased stress. Universities should engage in more vigorous lobbying to increase their PhD students' national stipends to at least EUR 1,200. If this fails, universities should find ways to ensure this income level for their doctoral students.
- 4) Although the dropout rates are high by European standards, a thorough analysis of their causes is lacking. It is necessary to develop a better system for monitoring doctoral students' successes and failures. Each doctoral student dropping out should be interviewed focusing on motivation, financial situation and gender-specific problems, among other things.
- 5) Supervisors should guide doctoral students better through realistic and effective research and publication planning, with a view to submitting their doctoral theses in a timely manner and with appropriate length.
- 6) The minimum criterion of three published peer-viewed scientific papers (a prerequisite for the defence of a doctoral thesis) should be reviewed and more flexible rules established; for example, by placing more value on papers published in ISI Web-of-Science Q2 or Q1 journals.
- 7) The annual evaluations of doctoral students should be focused more on content. At the moment, they mainly focus is on quantitative indicators (credits, conferences), but less on the content of research. These evaluations should also include presentations of research results as

well as further research and publication plans, and discussions of these issues between the student, the supervisor and the evaluation committee. In this way, a strategy for doctoral research should be formed, the performance of which must be assessed during subsequent evaluations. The Committee recommends continuing these evaluations even after the doctoral student has completed the nominal study period (as is done, for example, at Tallinn University).

- 8) Continuation of the activities of doctoral schools is at risk due to a likely decrease in European Union funding. Universities should develop a strategy to ensure that their doctoral schools continue to function. Universities also need to encourage all their doctoral programmes and doctoral students to participate in the activities of these schools.
- 9) Doctoral students see positions at universities as their main career prospects. However, this is not possible due to the limited number of such positions. Also, a doctoral degree has not been sufficiently valued in society at large. Doctoral students should be better informed about career opportunities outside of the universities. For example, career counselling seminars could be conducted within the framework of doctoral schools, with the participation of government and non-governmental institutions and the private sector, as well as to use internship opportunities. Universities should better introduce the value of doctorates and the high-level skills that it represents to various societal sectors.
- 10) Although some universities already support the creation of spin-off companies, doctoral students need to be better informed and trained by using the existing success stories.
- 11) The number of funding sources for research projects should be increased. Although there are not many large companies in Estonia, possibilities for funding research projects by larger and smaller companies, government authorities and non-governmental organisations should be explored (including international possibilities).

## **ENVIRONMENTAL SCIENCES AND APPLIED BIOLOGY**

### **Strengths**

- 1) The infrastructure is up to date, and there are good scientific collections. Access to research literature and databases is good.
- 2) The scientific level of some research teams is very high.
- 3) A depreciation fund for updating infrastructure has been established, amounting to EUR 250,000 annually.
- 4) Doctoral students are well integrated in research and involved in supervising BA and MSc students.
- 5) The diversity of jobs held by alumni and the establishment of consultancy firms by former doctoral students suggest that they are reasonably well prepared for jobs outside universities.
- 6) Competition among supervisors has contributed to an increase in the quality of doctoral studies.
- 7) The doctoral students' assessment system is transparent and effective.
- 8) Doctoral students can spend adequate time abroad and funding for this purpose is available. Almost all doctoral students participate in international mobility.
- 9) Sustainability research is an essential part of the University's development plan. The doctoral programme has great potential and an important role in such research.

### **Areas for improvement and recommendations**

- 1) The total number of doctoral students for the number of supervisors is insufficient to ensure a critical mass of researchers required for the effective operation of some laboratories. The lack of cooperation between research groups is also a concern, partly due to different physical

locations. At the University, synergies between the research teams should be encouraged to ensure availability of the necessary academic critical mass.

- 2) In some cases, doctoral students are in a situation where they work in a laboratory that does not have project money, not even to cover the costs of reagents needed for experiments.
  - 3) Collaboration with research-based companies and employers needs to be developed, both at the student and supervisor levels. Greater cooperation with industry is especially important in order to enhance students' entrepreneurship skills and strengthen the acquisition of soft skills in the programme. Funds for practical internships of doctoral students in companies should be budgeted. Enhanced international networking needs attention, which would strengthen the profiles of University institutes and allow for joint grant applications and for inviting more guest lecturers.
  - 4) The locations of University buildings and laboratories and the connections between them should facilitate a closer collaboration between research teams and the exchange of ideas.
  - 5) The University's 'Green University' brand needs to be strengthened. Its implementation requires a strategic approach based on high-quality research teams. More international doctoral students should be involved in the 'Green University' brand. Topics of sustainable development should be further reflected in doctoral research.
  - 6) The University has realised that the sustainability of its infrastructure is a major challenge. It is advisable to set up an infrastructure planning committee at the university level, and formulate a strategy with priorities for upgrading the infrastructure.
  - 7) It is necessary to strengthen career planning, as most doctoral students see their future to be only in academic research. The study programme should enable students to acquire more general competencies. Practical trainings at companies and government authorities should be introduced, which would give doctoral students a wider perspective of their opportunities outside the university and increase the societal impact of the programme. Although the University seeks to stimulate its graduates' employment in the public and private sectors, a clear strategy should be developed for this purpose in collaboration with employers. Some of the topics of doctoral theses could be related to specific needs of employers.
  - 8) Members of teaching staff who pursue their doctoral degrees should be exempted from other duties in order to ensure that they complete their studies in time.
  - 9) The freedom of doctoral students to choose courses is not adequate. At the same time, students are dissatisfied with some of the compulsory courses. Students must have greater freedom to choose courses and thereby to design the programmes that suit their needs.
- 10.** Point 40 of the document 'Quality Assessment of Study Programme Groups at the Level of Doctoral Studies' establishes that the Quality Assessment Council shall approve an assessment report within three months after receipt of the report. The Council shall weigh the strengths, areas for improvement, and recommendations pointed out in the assessment report, and then shall decide whether to conduct the next quality assessment of that study programme group in seven, five or three years.
- 11.** The Council weighed the strengths, areas for improvement, and recommendations referred to in point 9 of this document and found that the study programme, the teaching conducted under these programmes, and development activities regarding teaching and learning conform to the requirements, and

#### **DECIDED**

**to approve the assessment report and to conduct the next quality assessment of the Life Sciences study programme group at the level of doctoral studies at the Estonian University of Life Sciences in seven years.**

The decision was adopted by 10 votes in favour and 0 against.

12. The Council proposes that the Estonian University of Life Sciences submit an action plan to EKKA with regard to the areas for improvement and recommendations pointed out in the report no later than 21.08.2019.
13. A person who finds that his or her rights have been violated or his or her freedoms restricted by this decision may file a challenge with the EKKA Quality Assessment Council within 30 days after the person filing the challenge became or should have become aware of the contested finding.

The Council shall forward the challenge to its Appeals Committee who shall provide an unbiased opinion in writing regarding the validity of the challenge to the Council, within five days after receipt of the challenge. The Council shall resolve the challenge within ten days of its receipt, taking into account the reasoned opinion of the Appeals Committee. If the challenge needs to be investigated further, the deadline for its review by the Council may be extended by a maximum of thirty days.

A judicial challenge to this decision is possible within 30 days after its delivery, by filing an action with the Tallinn courthouse of the Tallinn Administrative Court pursuant to the procedure provided for in the Code of Administrative Court Procedure.

**Eve Eisenschmidt**  
**Chair of the Council**

**Hillar Bauman**  
**Secretary of the Council**