

Decision on the quality assessment of doctoral studies of the Life Sciences study programme group at Tallinn University

30.06.2021

The Higher Education Quality Assessment Council of the Estonian Quality Agency for Higher and Vocational Education decided to approve the report of the assessment committee and to conduct the next quality assessment of doctoral studies in the life sciences study programme group at Tallinn University in seven years.

On the basis of Section 48(4) of the Higher Education Act, Section 10(4) of the Universities Act and clause 41 of the document "Quality Assessment of Study Programme Groups in the First and Second Cycles of Higher Education" established on the basis of the authorisation contained in Section 24(5) of the Statutes of the Republic of Estonia Education and Youth Board, the Higher Education Quality Assessment Council of the Estonian Quality Agency for Higher and Vocational Education (hereinafter the Council) states the following:

1. On 21.08.2018, the Council decided to conduct the next quality assessment of doctoral studies in the life sciences study programme group at Tallinn University in three years.
2. Tallinn University and EKKA agreed on the time of quality assessment of the study programme group on 15.04.2020.
3. By order no 1.1-10/21/6 of 19 January 2021, the Director of EKKA approved the following composition of the assessment committee for the quality assessment of doctoral studies in the life sciences study programme group at Tallinn University:

Laurent Counillon (Chair)

Professor, University Nice Sophia Antipolis; France

Asnate Kažoka

Doctoral student, University of Latvia; Latvia

Kari Keinänen

Professor, University of Helsinki; Finland

RIK Leemans	Professor, Wageningen University; Netherlands
Andrus Tasa	Toxinvent OÜ; The Competence Centre on Health Technologies; TBD Biodiscovery; Biotehnoloogia Park Kinnisvara Ltd; Estonia

4. Tallinn University submitted the following doctoral study programmes for assessment:

Analytical biochemistry

Ecology

Complex systems in natural sciences

5. On 5 January 2021, Tallinn University submitted a final self-analysis report to EKKA, which the assessment coordinator forwarded to the Committee on 30 January 2021.
6. A virtual assessment visit to Tallinn University took place from 5 to 6 April 2021.
7. On 1 May 2021, the Committee sent to EKKA a draft assessment report, which EKKA forwarded to the higher education institution for comments on 6 May 2021, to which Tallinn University submitted a reply on 19 May 2021.
8. The Committee submitted the final assessment report to EKKA on 20 May 2021. The assessment report forms an integral part of the Decision. The report is available on the EKKA website.
9. The final assessment report and self-analysis report were forwarded by the Secretary of the Council to the members of the Council on 25 June 2021.
10. At its meeting on 30 June 2021, with the participation of 10 members, the Council discussed the received documents and decided to highlight the following strengths, areas for improvement and recommendations as well as suggestions for further developments for the life sciences study programme group at the level of doctoral studies at Tallinn University.

Strengths

- 1) The hitherto study programmes "Analytical Biochemistry" and "Ecology" have been reorganised into one, "Complex Systems in Natural Sciences", which fills a unique niche in Estonian universities' doctoral studies and has good potential for further development.
- 2) The qualification of teaching staff is good, partly excellent. They are committed and enthusiastic and highly appreciate the interdisciplinarity of the new doctoral programme.
- 3) Supervisors are regularly assessed on the basis of clear requirements and, where necessary, directed to enhance their supervising or research skills.

- 4) Cooperation within Estonia is intense and thus enables synergies. Resources are shared and visiting professors and co-supervisors are invited in cooperation with other universities.
- 5) Internationalisation is very good in terms of both academic staff and doctoral students. Doctoral students actively participate in international events and mobility programmes and have access to a number of sources supporting mobility.
- 6) Working relationships with companies have been established.
- 7) The research and teaching infrastructure is fully adequate. In the case of analytical biochemistry, it is excellent and supports cooperation with companies.
- 8) Opportunities for benefiting from in-university research grants have been created for doctoral students.

Areas for improvement and recommendations

- 1) In the *Complex systems in natural sciences* study programme too little attention is given to mathematical and modelling skills, which should be an important part of complex systems learning. The role of physics in the curriculum needs to be clarified.
- 2) The problem is the wide range of topics and courses and the lack of research priorities. To be competitive, the study programme should be better targeted and focused. It is important to urgently define the focus and strategic orientation of the study programme.
- 3) The experience of academic staff in complex systems analysis is limited. As it is now at the heart of the new curriculum, the skills of academic staff need to be developed in terms of integrated modelling and system analysis.
- 4) Although the choice of topics and supervisors for a doctoral thesis is flexible, too many different themes of doctoral thesis lead to unwanted fragmentation. It is necessary to develop a research strategy, to define a focus and to ensure that the themes of the doctoral thesis correspond to it.
- 5) The distribution of doctoral students and their topics between different doctoral schools is a problem. This is not optimal in the longer term.
- 6) It is necessary to ensure that the research topics of academic staff are aligned with the new study programme, including by implementing the necessary administrative measures.
- 7) The length of doctoral studies is still too long, the main reason for this being the previous financing model.
- 8) Although universities have agreed on a relaxation of the three articles rule (the third article does not have to be published), it is still required.
- 9) Several doctoral students still feel isolated in their research. It is difficult for doctoral students in small research teams and individual doctoral students to acquire managerial and teamwork competences.
- 10) The low number of students is unsustainable in the long term. It is necessary to draw up a plan for the next ten years on how to increase the number of

students, involving alternative sources of funding (including the European Union and other international sources).

- 11) There is no plan for infrastructure development and no funding. An infrastructure planning committee should be set up at university level to, inter alia, formulate strategy and priorities for infrastructure renewal.
- 12) In conducting and assessment of courses, traditional methods are mainly used. It is desirable to make greater use of interactive learning methods (reverse classroom, project-based learning, etc.) that are more inspiring for students and require fewer exams.
- 13) More attention should be paid to identifying and promoting career opportunities for doctoral candidates outside the academic world.
- 14) The collection of feedback from alumni needs to be formalised and made regular.

Opportunities for development

- 1) Recruitment of five new professors is planned. Its success would create good opportunities for strengthening the study programme and increasing its scientific impact.
- 2) It is recommended to continue developing cooperative links with industry. The potential in this area is currently underexploited. Companies should be offered opportunities for cooperation in the use of existing equipment and competences as well as through industrial doctorates.
- 3) In addition to their doctoral studies, doctoral students must now devote time to teaching and participating in various projects, which may extend their doctoral studies. Additional activities should be better integrated with doctoral projects.
- 4) Doctoral candidates should be admitted with greater consideration of their motivation and potential.

11.Paragraph 41 of the document entitled 'Assessment of the quality of a study programme group in the first and second level of higher education' states that the assessment report shall be approved by the Assessment Council within 3 months of its receipt. The Council shall consider the strengths, areas for improvement and recommendations outlined by the assessment committee and decide to carry out the next assessment of the quality of the study programme group in either seven, five or three years.

12.The Council considered the strengths, areas for improvement and recommendations set out in paragraph 10 and found that the study programme, its learning and teaching and learning related development meet the requirements; and

DECIDED

To approve the assessment report and carry out the next assessment of the quality of doctoral studies in the life sciences study programme group at Tallinn University in seven years.

The decision was adopted by 10 votes in favour. Against 0.

13. The Council suggests that Tallinn University shall submit to EKKA an action plan concerning the improvement areas and recommendations set out in the decision no later than on 30 June 2022.
14. 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 legal 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 under the procedure provided for in the Code of Administrative Court Procedure.

Hillar Bauman

Secretary of the Council