

Expert group joint opinion

Evaluation Procedure: Assessment of Study Field

Higher Education Institution: Daugavpils University

Study field: Environmental Protection

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Summary of the Assessment of the Study Field and the Relevant Study Programmes

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Daugavpils University (DU) is the only university in East Latvia and plays a very important role in the development of higher education in the region. DU main development directions follow the national plan for the development of higher education with a focus on the natural sciences, which includes the study field "Environmental Protection" (SAR, p. 4-5). The need for both study programmes Academic Bachelor Study Programme "Environmental Science" (ABSP "Environmental Science") and Professional Master Study Programme "Environmental Planning" (PMSP "Environmental Planning") is justified regionally, nationally, and internationally with goals, tasks, and results which align well with the respective study field (SAR, p. 78-79).

The goal set by DU for the study field "Environmental Protection" is fully in line with the university development strategy, which aims to create a modern and competitive environment that ensures the development of future employees who can contribute to the development of green businesses in the Latgale region and throughout the country (SAR, p. 6). Clear mission and vision of the DU correlates with the two study programmes implemented in the study field (SAR, p. 4) and the study programmes ensure good theoretical and practical knowledge, which ultimately confirms the objectives of the study programmes. Well-defined objectives within the study field enable effective implementation of the study programmes.

All documents and procedures are interconnected and built on each other so that the link between the study programmes included in the study field is clear and logical. Procedures such as the admission process at DU are well regulated and clear, and the system is generally clear. Academic integrity at DU is regulated with clear policies, DU has procedures in place to detect plagiarism, so the use of anti-plagiarism tools is effective, and students are aware of these procedures. The management of the study field is characterised by good and motivated leadership, effective planning of teaching and research. Support systems are implemented in education and represent real support and thus together ensure its ability to provide quality education. In this way, the management ensures that the study field meets current educational and economic needs and is also flexible and ready for new challenges and opportunities.

The demand for the study programme graduates in the labor market is fully justified, thus proving that the structure and content of the study plans are logical and actual. Nevertheless, some shortcomings were identified: downward trends in scientific activity and mobility, nonconformity to professional standard, minimal option of limited elective courses, low usage of student-centred teaching methods, non-balanced academic workload for academics. As a very positive example, the grant system for student research work is very stimulating. DU also benefits from a functional quality management system which is established that supports the institution's strategic objectives and promotes the continuous improvement of study programmes. The system is supported by quality documents that provide the basis for management at different levels and with different stakeholders across the system. Regular feedback from students, teachers and employers is an integral part of this system and enables rapid changes and the elimination of deficiencies. Technical and administrative support is ensured, and it was confirmed during the on-site visit that the study programmes are effectively planned, implemented and continuously improved at all levels. General system of admission of students is clear and well set, structured assessment methods and procedures help to ensure that student evaluation is an integral, strategic part of the educational process at DU, effectively contributing to the educational and professional development of the students. DU has established effective systems for financial support, ICT solutions, and student

services, which contribute positively to the implementation of the Environmental Protection study field.

DU has improved technical conditions by renovating laboratory buildings and dormitories, as well as introducing new books and databases for students and made efforts to meet regulatory standards in terms of teaching staff qualifications and collaboration mechanisms, which contribute to the delivery of the Environmental Protection study programme. However, there are significant weaknesses that limit the study programmes' overall effectiveness.

Nevertheless, there are still some challenges in terms of ensuring better visibility and accessibility of documents for students on websites with a particular focus on the English language, establishing clear rules on when and how AI tools can be used, including guidelines for proper referencing and an effective measuring of the learning outcomes. In addition, regular observations or supervisions should be carried out at study programme level to ensure the implementation of the academic integrity principles in daily teaching, implementation of Plan-Do-Check-Act (PDCA) cycle at all levels. Additional efforts need to be made to formalise the design of examinations and link examination questions to learning outcomes.

Significant challenges remain, including the heavy workload of teaching staff, limited access to updated resources, and non-competitive salaries. These issues hinder research productivity, professional development, and the university's ability to attract and retain top-tier talent. Improving staff workload balance, increasing investment in updated resources, and addressing salary concerns are essential to enhancing the overall effectiveness of the study field. Some challenges were highlighted, including the lack of quantitative indicators in the development plan of the study field, the low number of incoming international academic staff limits deeper internationalization and presents an area for improvement. Inconsistencies have been observed between the study course titles included in the study plan and study course descriptions. Lectures are an essential part of the study process; however, they are not the most successful student-centric learning method. The information included in the study course descriptions has been partially updated; however, the list of mandatory literature contains a lot of outdated sources in Latvian. The supervision of the final thesis needs to be balanced between academic staff. Also, the number of students in certain semesters does not exceed the minimum numbers to ensure the profitability of the study programme. The finances cannot be considered balanced as the study programme cannot be operated in a cost-effective way on its own as additional financial support is needed from the DU budget. The expert team disagrees that there will be no additional costs in launching an English version of the study programme. Inconsistent qualifications among some staff, disruptions caused by staff changes, and uneven research output hinder the study programme's ability to fully achieve its learning outcomes. Additionally, while collaboration mechanisms exist, their effectiveness is compromised by heavy workloads and staff transitions. The decision to offer the study programme in English is strategic, aiming to attract more students and increase financial resources. Overall, the internationalisation of the study programme is a positive and necessary step, but DU must plan carefully to ensure its sustainability.

The Self-Assessment Report (SAR) and annex provided a detailed overview of DU activities, management, quality assurance, and study programmes. However, several minor issues, such as lack of English translation presented challenges during the assessment process and could potentially lead to inaccuracies in the joint report.

Despite these above-mentioned challenges, DU received a good and average overall rating for the study programmes, reflecting the value that students, graduates, and employers place on its study programmes. Engaging conversations with students and faculty during the assessment visit

revealed a vibrant, supportive atmosphere, which is fundamental to DU esteemed reputation. A commitment to academic standards and good processes is evident, although certain issues have been identified which, if not addressed, may affect functioning.

In summary, the assessment of DU highlighted its strengths and areas for improvement, reinforcing the notion that with continued effort and strategic initiatives, DU can maintain its position and enhance its contributions to the national academic field.

The expert team appreciates the hospitality and valuable insights shared during the on-site visit, affirming DU as a desirable place to study and work.

I - Assessment of the Study Field

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1.1 Management of the Study Field

Analysis

1.1.1. The goal set by Daugavpils University (DU) for the study field "Environmental Protection" - "to prepare qualified, internationally competitive environmental specialists during the implementation of basic studies and higher level programs, who are able to independently plan and conduct research and are competent to work in environmental protection institutions and research in environmental science and its sub-sectors" (SAR, p. 14) is fully in line with the university development strategy, which aims to create a modern and competitive environment that ensures the development of future employees who can contribute to the development of green businesses in Latgale region and throughout the country (SAR, p. 6). In the context of achieving the goals, the experts emphasise the clear mission and vision of DU, which correlates with the two study programmes implemented in this study field (SAR, p. 4). The elements of the mission that correspond to the study programmes and education for sustainable development are described in detail in the curricula in the Annex: "ABSP_Environmental_science_course_descriptions.zip" and Annex: "PMSP_Environmental planning_course descriptions.zip".

DU is the only university in East Latvia and plays a very important role in the development of higher education in the region, which was confirmed by the interviews during the on-site visit. According to SAR, p. 4-5, DU main development directions follow the national plan for the development of higher education with a focus on the natural sciences, which also includes the study field "Environmental Protection". Of particular note is the determination of the DU management to attract students from the region to "green professions", as well as the extremely positive assessment of employers, who believe that both study programmes provide training and skills that are lacking in the region, which will ultimately lead to employability and retention of young people in East Latvia.

According to SAR, p. 15, the study programmes ensure good theoretical and practical knowledge, which ultimately confirms the objectives of the study programmes. In the interviews with employers, experts verified that the study programmes contribute to the development of theoretical and practical knowledge that is lacking in the labour market, and it is evident that there is great potential for employability after completion of the study programme. During the on-site visit, the experts had the opportunity to talk to students, teachers and graduates, who confirmed the high-quality experimental work and fieldwork with teachers, which confirms the previously mentioned claims. According to SAR, p. 15, the study field "Environmental Protection" is strategically very important for the implementation of the national documents related to green policy: "Latvia's Sustainable Development Strategy to 2030", "National Development Plan 2021-2027", "Environmental Policy Guidelines 2021-2027" " and the "Latvian Climate Change Adaptation Plan to 2030". Both study programmes are also in line with EU standards, with a focus on the EU Green Deal and the preparation of experts in climate change adaptation and mitigation (SAR, p. 15).

In the social context, the study field "Environmental Protection" also meets the needs of the market by developing an awareness of the need to preserve natural resources, the good management of water resources, waste and soil, which is of great importance for Latgale region. Considering the attractiveness of the study area, the well-equipped laboratories, the unique location of the city and the environment rich in natural resources, the DU management is also considering the introduction of study programmes in English.

The DU study field comprises two study programmes – the Academic Bachelor study programme Environmental Science, code 43431, with 120 CP (180 ECTS), 3 years, with a Bachelor of Science in Environmental Science degree, and the Professional Master study programme Environmental Planning, code 47431, with 80 CP (120 ECTS), 2 years, with a Master degree of Environmental Planning (SAR, p. 16-17). Furthermore, the connection between the degree programmes in this area is clear and logical and covers the entire spectrum of knowledge and skills (Annex: "ABSP_Environmental_science_course_descriptions.zip" and Annex: "PMSP_Environmental_planning_course_descriptions.zip"). The degree programmes are structured to allow continuity of learning through Bachelor to Master degree. This structure supports a logical progression for students and encourages their development into highly qualified professionals which were confirmed during the on-site visit. Although the number of students enrolled in both study programmes, especially in the final year of enrolment is relatively low, there has been progress in the number of new students in the academic year 2024/2025, indicating a hope for more graduates in the next years and confirming that this study field is interesting for students (Annex: "3.1.4. Statistics on students, Environmental protection"). A positive learning environment and high-quality teaching resources are sufficient for future development. In this sense, the commitment of the teaching staff is of great importance, and during the on-site visit the experts had the opportunity to see for themselves the dedication and enthusiasm with which the teaching is carried out. The balance between theoretical and practical teaching is an advantage for both study programmes, as is the good cooperation with employers.

DU has a clear development policy, which is confirmed by the annex: "2.1.2_Study field development plan summary_EN.docx". It mentions, among other things, the enhancement of the main indicators for the improvement and development of the study programmes by 2029, with particular emphasis on: continuous improvement of the quality of all aspects of the study programmes conducted in the study area and promotion of cooperation with employers, other Latvian and foreign educational and scientific research institutions, municipalities, and entrepreneurs. However, it should be noted that, while the actions set out in the development plan are undeniably positive and meaningful, the results to be achieved lack measurable outcomes or so called KPIs (key performance indicators). DU should adapt this plan and include results which they can assess more easily and unambiguously.

In conclusion, the implementation of the study programmes in the study field "Environmental Protection" corresponds to the main developmental and strategic directions DU has set. Programmes of this study field prepare students for successful careers and are interconnected in a clear and logical way. The integration of practical experience and an emphasis on student-centred learning fosters a supportive educational environment. Overall, the study field successfully fulfils its educational objectives and prepares graduates for future tasks in their careers.

1.1.2. DU has identified and analysed the strengths, weaknesses, opportunities, and threats (SWOT) of the study field, according to SAR, p. 18-22. The strengths, weaknesses are analysed for the study field, the study process, the students, the staff and the opportunities and the possibilities only for the study field. Based on SAR, p. 23-24, a matrix for selecting strategies is defined with clear vision on how to use strengths to get the most out of the opportunities offered and how to use strengths to minimise the threats.

However, in the SWOT analysis, there seems to be a certain balance between the number of

strengths and weaknesses, but a deeper analysis reveals that some of the weaknesses belong to the threats, as they come from the external environment that DU cannot influence. This refers in particular to: "Unclear government policies in the area of higher education, the "surplus" principle in the area of education and science funding, insufficient state funding for scientific institutions, which reduces students' opportunities to engage in research (SAR, p. 19).

When analysing the advantages and disadvantages of the study process, another significant weak point emerges, which is mentioned in the SAR, p. 20, and refers to the "insufficient number of up-to-date textbooks and scientific journals". Although this weakness is an essential element and needs to be improved continuously, during the on-site visit, the expert team visited the library where the resources were presented, as well as databases of scientific and specialised works available to teachers and students, and overall impression was good. None of the participants in the meetings during the onsite visit mentioned the lack of books as a problem either. In this sense, a revision of this part of the weakness is necessary. During the on-site visit, the Moodle system used in the organisation of classes was also presented, and it can be noted that it is present, but how consistent the quality of the material is depends on the professors themselves, so the stated weakness "Cancelling the control methods of students' independent study work (colloquiums, test papers, individual consultations, etc.) as a form of academic work, leaving the provision of this work direction to the enthusiasm of lecturers" is justified. This weakness, stated in the SAR, p. 20, represents a well-articulated situation that was confirmed during the onsite visit in a discussion with lecturers. The lack of review of learning outcomes as well as the lack of understanding of how to implement them through various forms of student testing requires DU to make significant changes and educate teaching staff. It is also of great importance that this weakness is addressed in the coming period, as the competence of future graduates will be tested through the review of learning outcomes. However, during the on-site visit discussions, this was not viewed as a significant risk.

During the onsite visit and in the SWOT analysis (SAR, p. 19), it was pointed out that marketing activities for both study programmes should be strengthened, and graduates and employers who have expressed an interest in addressing this weakness can play an important role.

According to SAR, p. 2, with regard to teaching staff and the discussion on site, the experts can confirm a mismatch between research activities and contact teaching hours. The management needs to establish a clear policy in the future, especially due to the tendency to hold classes also in English. The SWOT analysis for staff also lists some points that are more of a threat because they relate to the influence of the environment, so it would be necessary to revise the stated claims, e.g. "Non-competitive existing remuneration system for attracting Latvian and foreign high-level guest lecturers" (SAR, p. 21).

DU has incorporated these insights into a detailed SWOT, outlining specific objectives and actions to enhance strengths and opportunities, while addressing weaknesses and threats.

Based on the analysis of the SWOT elements, DU has elaborated a development strategy in the form of the document, see annex: "2.1.2_Study field development plan summary" for the period from 2023 to 2029. However, it was not clearly stated how the implementation of the Study Field Development Plan 2023-2029 proceeds as the intended implementation of all activities. The plan comprised 15 activities with a defined implementation period, responsible persons and expected results, but it is important to note that they are not always measurable. In general, these efforts demonstrate an approach to ensure the growth and relevance of the study area in the educational and economic landscape, but at the same time need to be revised in terms of timing. All the activities addressed will be carried out in the same period from 2023 to 2029, which is the next evaluation cycle and is certainly not well designed in the context of ensuring the quality of the study field. It is necessary to carry out an annual SWOT analysis and to divide the objectives into short and long-term goals and to establish clear indicators.

Despite this clarification, many activities are described that support DU strategic objectives and help to improve the weaknesses and threats, e.g. scientific capacity, marketing and promotion of studies

and research in Latgale region, promotion of mobility under Erasmus+, improvement of Moodle knowledge, promotion of academic staff renewal, and cooperation with employers, and DU should use SWOT analysis they've made and develop future plans taking into account what they've concluded by themselves.

1.1.3. Detailed description of the management structure, roles and responsibilities is provided in SAR, p. 24-26. During the on-site visit it was confirmed also to experts that everything functions as described and no significant problems were identified. The management structure of the study field "Environmental Protection" and the study programmes ABSP "Environmental Sciences" and PMSP "Environmental Planning" is designed to ensure the functionality and development of the study area and follows clearly defined regulations that are geared towards the development of the study field. According to SAR, p. 25, the most important document related to this field is "Regulations on the opening and management of study areas and study programmes of the University of Daugavpils", while the organisation and implementation is based on the DU Constitution.

According to SAR, p. 25, the role of the head of the study field and the director of the study programme, who jointly organise, coordinate and ensure the necessary quality, is clearly defined. As a result of the discussions during the on-site visit, the expert team confirmed the descriptions of responsibilities at the various levels, which are consistent with the description in the SAR, p. 24-25. The comprehensive understanding of the teaching process, conducting fieldwork and scientific research for students, collaborating with employers, actively participating in decision-making and forwarding requests to higher-level organisational structures in order to lay the foundations for the development of the study field should be emphasised. In this respect, there is some difference in the management of PMSP "Environmental Planning" in relation to the concept of developing and better positioning the study programme in the environment. Since both study programmes are necessary for the development of this study field, it is of great importance to cooperate at the level of study programme management and to act jointly towards the higher structures of DU. In this sense, the prerequisites for a continuation of the study programme from ABSP "Environmental Sciences" to PMSP "Environmental Planning" will be created.

For the development of the study programmes, students must be motivated to continue their studies. The reasons for dropping out, which is quite high in both study programmes, must be analysed in order to eliminate deficiencies, and better cooperation with the local community and employers must be developed. Discussions with lecturers during the on-site visit indicated that students are in principle willing to continue their studies, but that given the level of indecision, additional efforts should be made to motivate existing students to continue their studies. In discussion with employers, it was pointed out that DU ensures a different level of knowledge and skills through these two study programmes, which is the aim of both study programmes and thus confirms the different level of education that has its place in the labour market.

Regarding DU intention to offer both study programmes in English from the next academic year, it should be noted that this represents some progress in terms of recognition and development of study programmes. DU should make the necessary preparations for the introduction of the study programme in English: all documents and procedures should be in English and it must be ensured that the technical support has a sufficient level of English proficiency. In addition, all course descriptions, i.e. syllabi, exams, instructions for exercises, Moodle, and study literature, should be available in English. A major challenge will also be the English language proficiency of the lecturers, who must have a high level of English. In terms of development, the organisation of English courses for lecturers in the next academic year should be highlighted, which will contribute to the development of the competences. During the on-site visit, the experts received indications that the academic staff feels fully supported by the management of the study field and the related study programmes, as well as by the DU administration staff.

Decision-making is efficient and support from administrative and technical staff is adequate and

ensures all the needs of the study field and its study programmes are met, so there is an established process for approving proposals for changes to the scope of study, content and calendar arrangement by semester, and faculty competences. According to SAR, p. 25, proposals for changes in study programmes are submitted by the Council of the Faculty of Natural Sciences and Health Care and then forwarded to the DU Study Council. An important role in the structure is played by the DU Student Service Centre, which offers a wide range of services, from supporting students during their studies to drawing up study contracts and participating in the organisation of various information events with (SAR, p. 25-26).

From this, it can be concluded that the management structure is well defined. The roles in the decision-making system are clear and the management culture creates an environment that encourages open and transparent discussions. Given the changes in the system and the new leaders in positions involved in policy creation and study programme recognition, experts support the current way of working and encourage open communication between directors, lecturers and administrative staff associated with the use of existing tools to gather information, analyse data and create policies and plans to achieve strategic goals in the study field. From the interviews with students and graduates, it can be concluded that DU has had a positive impact on their motivation for the field, which is a very good example of an efficient and modern university.

Technical and administrative support is ensured, and it was confirmed during the on-site visit that the study programmes are effectively planned, implemented and continuously improved at all levels. The management and administrative structure actively supports the development objectives of the study field and ensures the effective functioning of the study programmes within this study field.

1.1.4. Admission of students in DU is regulated by "Daugavpils University admission rules for full-time and part-time undergraduate studies" and "Daugavpils University admission rules for full-time and part-time higher level studies", these regulations and accordingly - procedures are updated each academic year (SAR, p. 26-28). Information about admission is also available on the homepage of DU (for international students, in English - <https://du.lv/en/studies/admission/>, for local students, in Latvian - <https://du.lv/gribu-studet/uznemsana/>). Main institution which is responsible for the process and also makes decisions is DU Admission Commission, but it is commendable that DU has also established procedure how these decisions can be challenged - in accordance with rules published here - https://du.lv/wp-content/uploads/2024/04/Kartiba_kada_persona_var_apstridet_un_parsudzet_ar_uznemsanu_saistitus_lemumus.pdf, unfortunately, only in Latvian. This document should be translated also in English, making it accessible to students from abroad.

General system of admission of students is clear and well set, but few aspects could be improved. For example, the way how information about admission is published on the homepage may be better. When going through information panels about admission calendar, regulations, and descriptions of study programmes, documents are in a "download" form, which is not convenient for potential students - while trying to find the needed information, a person may download a lot of unnecessary documents which will have to be deleted later and the amount of time that is spent to attain what was necessary is bigger than if all information would be already published on the homepage. Also, it is not easy to find information about the amount of available budget-funded places in study programmes, which is a very important aspect for potential students.

On the positive side, the university is welcoming to students and during the admission process, if needed, communication and help from DU are ensured in various forms (SAR, p. 28). Also, the procedure how students' previous experience may be evaluated and taken into account - applications are reviewed by DU Admission Commission and it was confirmed during the on-site visit that in this study field there are positive examples of how people with previous education not connected with environmental science, but having some professional experience may be admitted

and later - well adapted in PMSP "Environmental Planning". Professional experience may be also taken into account when students are enrolled in the later stages of their studies. In these cases, procedure is set in accordance with "Procedure for starting studies in later stages of studies at Daugavpils University" and it confirms that formal and also informal education acquired outside of DU may be later aligned if learning outcomes fit.

1.1.5. The methods, principles, and procedures for assessing the achievements of students have been developed and are clearly defined and available to all stakeholders. For that purpose the DU has the DU Protocol No. 15 of 17.12.2018 "Regulations on studies at Daugavpils University" (SAR, p. 30).

The key factors on which the lecturers orient themselves are: positive achievements, transparency, the possibility of review, mandatory assessment, and diversity of assessment types as well as describing the 10 grade evaluation system. The basis for formulation of criteria is learning outcomes formulated in each study course, and explanations of assessments. These principles ensure the fairness, objectivity, and comprehensiveness of the assessment process. Based on SAR, p. 29-30, the assessment of students' learning outcomes is carried out and is the responsibility of each lecturer. But during the on-site visit, how learning outcomes are measured was discussed, and the lecturers did not confirm the extent to which the evaluation is aligned with the objectives of the study programmes and the needs of the students, i.e. it was not shown how and in what way the planned learning outcomes are measured. In the review of Moodle and the exam example, no link was made between the learning outcomes and the questions in the exam. Typically, lecturers rely on their experience with exams, and methods that are not supported by evidence directly related to the review of learning outcomes. Lecturers apply formative and summative assessment (SAR, p. 29), and choose the assessment forms and criteria depending on the teaching form and methods while students need to demonstrate knowledge and analyze the learned material (SAR, p. 29). According to the on-site visit, during which the experts toured the laboratories, one gets an impression of the well-organised way of teaching in small groups, which enables individual work and learning based on problem solving and task analysis.

At the end of the study programme, final examinations or the defence of final theses take place by presenting the results of student research, participating in a scientific discussion, and answering questions. During the on-site visit, the experts themselves were able to see the quality of numerous theses and can confirm the high level of quality and research in both study programmes.

Considering the rich experience of professors, the evaluation method was not negatively evaluated by students, but the question arises as to how less experienced teachers cope in the context of evaluation and taking exams, which ultimately have to verify learning outcomes. In this sense, it is of great importance to organise internal training and presentations of good practises for teachers on methods of measuring learning outcomes.

Descriptions of study course content, assessment criteria and other relevant information are available to students via DU e-platform (SAR, p. 30). During the on-site visit, the experts confirmed in conversation with students that professors inform students at the beginning of each study course about their obligations and rights, learning outcomes, skills and knowledge they will acquire after passing the exam. The assessment system includes both interim assessments and final examinations so the assessment of laboratory works, practical works, homework, tests, exams, presentations, and other works carried out during the semester is given a certain proportion in the final grade of the study course, and the exam grade must not reach the amount of 100% from the final grade (SAR, p. 30).

DU conducts an analysis based on the evaluation methods and procedures of the student surveys and the results obtained. In view of the low response to the survey evaluation, the relevant indicators on the basis of which improvements should be introduced, should be improved in the future, at least in relation to the number of students responding to the survey. However, in the

discussions with students and lecturers, there were no problems mentioned related to the evaluation procedures.

Overall, these structured assessment methods and procedures help ensure that student evaluation is an integral, strategic part of the educational process at DU, effectively contributing to the educational and professional development of the students. In order to link the good practice of student evaluation to learning outcomes, additional efforts need to be made to formalise the design of examinations and link examination questions to learning outcomes.

1.1.6. Principles of academic integrity in DU are regulated and stated by several documents, for example, Code of ethics for employees and students of Daugavpils University (<https://du.lv/wp-content/uploads/2021/12/Etikas-kodekss.pdf>) and Regulations on studies at Daugavpils University (https://du.lv/wp-content/uploads/2022/06/ENG-NOLIKUMS_PAR_STUDIJAM_DU_2018-1-1.pdf). Main principles are clear for both sides - students and academic staff, but a huge part of responsibility lies on the shoulders of lecturers. Principles mentioned in the documents regulating internal culture in the university must be taken into account also on an everyday basis - on daily lectures, examination papers, and tests. Higher education institutions tend to pay attention to how bachelor, master thesis are evaluated, and how plagiarism is checked, but often do not look so carefully on the academic process in general. DU have clear guidelines that have to be followed on every process, but they lack control and monitoring processes - SAR does not indicate that peer observations of teaching are happening in this study field or that any commission or directors of study programmes would check how principles of academic integrity are integrated into the daily study process. DU also has no principles or documents on how the use of artificial intelligence tools is regulated in university. As they are currently developing so rapidly, DU should establish clear guidelines where, when and how the use of artificial intelligence tools are or are not allowed in the study process, and how they should be referenced. In SAR, p. 31, DU describes two cases from study field "Environmental Protection" in which plagiarism was found in students' theses, indicating that anti-plagiarism tools and procedures used in the university are working effectively. University uses plag.lv, the procedure is established and students are informed about it, more information about it may be found here <https://du.lv/wp-content/uploads/2022/09/Procedure-of-thesis-submission-for-plagiarism-control.pdf>.

Conclusions on this set of criteria, by specifying strengths and weaknesses

The management of study field "Environmental Protection" creates a modern and competitive environment that ensures the development of future employees who can contribute to the development of green businesses in Latgale region. Well-defined objectives within the study field enable effective implementation of the study programmes. All documents and procedures are interconnected and built on each other so that the link between the study programmes included in the study field is clear and logical. Procedures such as the admission process at DU are well regulated and clear, and the system is generally clear. Academic integrity at DU is regulated with clear policies, DU has procedures in place to detect plagiarism, so the use of anti-plagiarism tools is effective, and students are aware of these procedures.

Nevertheless, there are still some challenges in terms of ensuring better visibility and accessibility of documents for students on websites with a particular focus on the English language, establishing clear rules on when and how AI tools can be used, including guidelines for proper referencing and an effective measuring of the learning outcomes. In addition, regular observations or supervisions should be carried out at study programme level to ensure the implementation of the academic integrity principles in daily teaching. This type of implementation leads to actual monitoring of compliance with these principles in everyday academic life, which is currently not done at the

highest level.

Overall, the management of the study field is characterised by good and motivated leadership, effective planning of teaching and research. Support systems are implemented in education and represent real support and thus together ensure its ability to provide quality education. In this way, the management ensures that the study field meets current educational and economic needs and is also flexible and ready for new challenges and opportunities.

Strengths:

- 1) The aims of the study field are fully in line with the DU development strategy.
- 2) Awareness of the SWOT factors and their application in the development plans of the study programmes.
- 3) A good management structure focused on the development of the study field based on the observation of trends and the analysis of study programmes.
- 4) High recognition of study programmes by employers.
- 5) Structured and defined admissions procedures and regulations.
- 6) High culture of academic integrity and anti-plagiarism activities in the process of thesis defence.

Weaknesses:

- 1) Insufficiently integrated verification of learning outcomes through examinations.
- 2) Insufficient marketing activities in the promotion of study programmes to attract more students.
- 3) No procedure in place to monitor compliance with academic integrity, ethical principles in day-to-day academic processes.
- 4) No regulations regarding use of artificial intelligence tools in the study process have been created.

1.2. Efficiency of the Internal Quality Assurance System

Analysis

1.2.1. Over the years, DU has developed normative acts that ensure the implementation and functionality of the quality system at all levels. According to SAR, p. 32, the aim of the quality system is to ensure that the content of studies complies with the standards of higher education, the quality of science and the requirements of the labour market. The SAR, p. 32, also states that the quality system “controls” the implementation of study programmes, which may be awkwardly defined, and the experts recommend reformulating this term in the context of developing tools that ensure the Plan-do-check-act cycle (PDCA cycle). As a rule, DU Study Quality Assessment Centre should be an advisory body to the DU management and, together with all stakeholders, provide tools to monitor the development of the quality culture in all components of DU. With this in mind, the Study Quality Assessment Centre should be emphasised as an independent and autonomous institution when presenting the organisational structure of DU. A quality policy has been developed as one of the basic documents and is publicly available on the website, <https://du.lv/en/about-us/documents/>. The Quality Policy (document: Internal quality assurance policy of studies at DU) defines objectives, principles and quality indicators, which relate in particular to the measurement of student satisfaction, the needs of advanced students, the needs of employers and the requirements of the market, the needs of the national economy, the employability of graduates, the external evaluation of study programmes and the comparison of study programmes with similar study programmes in Latvia and in the EU environment. The principles of operation, responsibility and public information are also defined (<https://du.lv/en/about-us/documents/>).

The experts believe that this form of quality policy should be revised within the framework of clear guidelines and objectives that are closely linked to the DU mission, vision, and strategic plan. It is

customary to define the Quality Policy on an A4 page, stamped and signed by the DU leaders, and publicly displayed in the corridors and in highly visible places so that everyone has the opportunity to read the text. As a rule, they tend to be declarative in nature and consist of clear instructions that set out the future direction of DU for the development of all study programmes. As this document was created as part of the project, it is cited: "The document was developed within the framework of project, "Improving governance and management competences of Daugavpils University", Agreement No. 8.2.3.0/18/A/010) financed by the European Social Fund", it is of great importance to continue the good practise of improving and revising the quality policy, i.e. it should be updated once a year or at least every two years, and the procedures should be laid down in DU Handbook for Quality Assurance and all other documents available on 1.3_List of Regulations for internal quality assurance.pdf. In addition, good practice shows that the quality policy is created through the work of expert teams, in which it would be good if representatives of all study areas of DU participated.

The DU Study Council and the DU Study Quality Assessment Center (SAR, p. 32) are responsible for the implementation of the quality system, on all levels: "Quality control organized at the University level and is carried out at all stages, i.e. matriculating students, hiring academic staff, evaluating and improving the content of the study program, evaluating the activity of structural units and their lecturers according to the results of scientific and academic work" (SAR, p. 32).

Surveys with students, graduates and employers are regularly organized. Once a study year, the head of the study field "Environmental protection" in cooperation with the study programme directors prepares the self-evaluation report of the study field for the previous study year. The performance of the study programmes is discussed at the meetings of the study field "Environmental Protection" Council, and proposals for changes in the study programmes are considered at Faculty of Natural Sciences and Health Care (DVAF) council meetings.

Discussion with the lecturers during the on-site visit revealed a good practice of DU in preparing the annual self-assessment report of the study field, which is prepared based on the annual self-assessment of the lecturers and other stakeholders. The preparation of a report for lecturers is not a problem, it is an established practice and the procedure for handing over the documents to the responsible persons is well known.

Specifically, a study programme report is prepared and after its discussion and approval by the Study Course Council and DVAF Council, it is submitted to the Study Quality Assessment Center and after approval by the DU Senate, it is published and is available from the DU internal network (SAR, p. 33). The revision of study content and literature for each study course takes place at the beginning of the semester, and at the end of each academic year the lecturers update their data in the internal information system (DUIS) and discuss the improvements internally and at a meeting with the director of studies. During the on-site visit, the experts had the opportunity to see how a functional Moodle system has been provided for the purposes of teaching, which is intended for students and contains the necessary information about the study course, lessons, exercise plan, lectures, literature, and methods of knowledge assessment

The analysis of the documents and the on-site visit show that the quality assurance system at DU exists and functions as such in the environment in which it is located. As part of the quality assurance system, a number of documents were developed and presented to the expert team in the form of Annex 1.3 List of Regulations for internal quality assurance.pdf.

Experts have the impression that DU recognises the importance of implementing processes and procedures for the purpose of developing DU. The fact that DU recognises the importance of both formal and informal feedback collected from students, alumni and stakeholders are particularly noteworthy. To improve this system, it is necessary to establish a PDCA cycle that requires the ongoing commitment of all system stakeholders, as it is unclear how results are effectively communicated to all stakeholders. It is also important to establish a clear understanding of how feedback from various sources and stakeholders is consolidated into a comprehensive system, as it is an essential component of DU's commitment to continuous improvement.

Quality cannot be an end in itself, it represents a model for monitoring the performance and development of DU and thus of study programmes. An important parameter of quality are KPIs, which should be defined at the level of DU, but also at the level of the study areas. Only then can one talk about analysing the elements that will lead to improvement.

During the on-site visit, the experts verified that the quality management system at DU ensures improvements and developments, contributes to the achievement of the objectives and learning outcomes and to the efficient implementation of the study area and related study programmes. All future steps in the development of the quality system should focus on analysing weaknesses and threats, and work towards eliminating anything that jeopardises the achievement of DU objectives. Analyses should be carried out at least once a year and improvements introduced on the basis of the indicators analysed.

Although the administration is aware of the weaknesses and threats, there is a non-coherent approach to solving and eliminating deficiencies related to the study programmes analysed by these experts, especially with some of the indicators of low number of enrolled students, and high number of students dropping out over the years. It is necessary to develop a culture of quality at all levels, capture benefits and good practices and present them publicly through the media available to DU today (website, social networks, good collaboration with the municipality and the local community, and alumni).

1.2.2. The development of new study programmes is coordinated with the DU Development Strategy, and the procedures for the development and review of the study programmes in the study area are set out in the document "Daugavpils University regulations on the opening and management of study fields and study programs" which is in force since 2020 (SAR, p. 36).

The procedure for opening new study programmes, the administration and implementation as well as the mechanisms for collecting feedback are clearly defined. Those involved in and responsible for the process of establishing a study programme and responsible persons from the study field council have clearly defined tasks for the process of establishing new study programmes. The Study field council includes representatives of the students and a representative of the employers, which was confirmed during the on-site visit. This way of approaching the formation of working teams ensures an objective and thorough process and it is a good practice that DU should continue, noting that the same should apply in the case of existing study programmes to be implemented in a foreign language (in the case of the two English-language study programmes analysed). According to SAR, p. 36, the assessment of the study field is done according to the accreditation schedule of the study fields, Clause 48 of Chapter XII of the Law on Higher Education Institutions. For the preparation of the documents DU use Guidelines for the development of the self-assessment report of the study field available on AIKA web site https://www.aika.lv/wp-content/uploads/2019/05/Studiju-virziena-pasnovertejuma-zinojuma-izstrade-s-vadlinijas_2019.pdf.

A self-assessment report of the study programme is required as a basis for the revision of the study programme, which is produced at the end of each year. While it is a fact that teachers regularly prepare self-assessment reports, which the expert team does not dispute, the key information regarding the content, effectiveness, and purpose of the report was not obtained from discussions with the study programme directors and teachers. It appears that the basic requirement of writing the report was formally met, but no concrete improvement measures derived from the reports were presented. The document annexes to this report: Application for the evaluation.docx applies to the application for assessment of the study field "Environmental protection". According to SAR, p. 36-37, DU organises that the Study Quality Assessment Centre (SKNC) receives the self-evaluation report for the academic year from the study programme directors every year. These reports contain an assessment of the study programmes based on annual surveys of students, graduates and employers. During the pandemic years, these surveys were conducted more than once a year. This

was useful in these crisis years. Study programme directors also conduct written or oral surveys of students 1-2 times per semester to identify any problems and respond in a timely manner. This system provides a proactive approach and a good basis for greater student satisfaction. All of these statements were also verified during the on-site visit.

According to SAR, p. 37, the preparation for the accreditation process of the study field "Environmental Protection" is carried out with special attention to the contents of the study programmes, which are more closely linked to STEM, environmental sciences, hydrobiology, chemistry, scientific activity and the labour market, which was also confirmed during the on-site visit.

In recent years, during the reporting period, no new study programmes have been established in the study field "Environmental Protection".

1.2.3. According to SAR, p. 38, the mechanism for submission of complaints and suggestions by students at DU is well structured and reflects the institution's commitment to democratic principles and quality assurance. DU has regulations governing the submission of complaints, which can be made publicly, anonymously, individually or jointly. An online form for submitting complaints is also available on the Study Quality Assessment Centre website <https://du.lv/en/about-us/study-quality-assessment-centre/> and the survey on the satisfaction of Latvian language students <https://du.lv/studentu-padome/uzticibas-anketa/>. In terms of content, it contains questions that are necessary for analysing the success and implementation of the lessons. DU recognises that complaints and suggestions are an integral part of the study quality system. With this in mind, they carry out various forms of assessment according to a structured procedure (SAR, p. 38), and experts discussed it during the on-site visit and can confirm the following statement: "Students have the opportunity to submit complaints or proposals to the Study Quality Assessment Center, the Study Council, the vice-dean or dean of the Faculty of Natural Sciences and Health Care, the Department of Environment and Technology, study program directors, vice-rectors and the rector. Complaints and proposals, depending on their importance, are accepted orally, in writing and electronically."

During the on-site visit, it was confirmed that all procedures are laid down as per the "Law on Submissions" and the "DU Code of Ethics". Complaints can be made on behalf of students through the Student Council, who in this case represent the students when considering the complaint, but after the discussion with student representatives, the expert team can confirm that students resolve issues with study programme directors in the first instance. During the on-site visit, the experts also inquired about the number of anonymous applications and were informed that there had been no such applications for the study programmes mentioned since 2013, which was also recorded in the SAR, p. 39. In conversation with the students, it was confirmed that they complete surveys, but it is not known why the response rate to the surveys is low. According to the SAR, p. 38, submissions from students and academic staff regarding restrictions and violations of academic freedom and rights enshrined in the Constitution are reviewed by the Academic Arbitration Court of DU.

Additionally, the experts were informed by the students that feedback on the results of the survey had been provided and that they fully supported them. Overall the mechanism is effective in addressing and resolving student complaints and suggestions, as it is supported by clear procedures and regular monitoring.

1.2.4. To ensure the quality of the study process, DU conducts various surveys of the parties involved, including the survey of the opinions of students, employers, and graduates. DU collects data through the informative system DUIS.

At the end of each month, the data is transferred to the State Education Information System (VIIS) and thus regularly updated, which makes the system efficient and enables good statistical indicators (SAR, p. 40). In addition to this, monitoring and evaluation of students' learning performance is also

carried out, as well as collected information on general student parameters for statistical purposes. A regular survey of students about the progress of studies and teaching staff is conducted once a year, ensuring that the opinion of all students is known. As it was clarified during the on-site visit, the surveys are completed by students once a year, with the exception of first-year students, who complete the survey after two months of study and at the end of their first year. All data is processed and managed by the Center of Study Quality Assessment. The data obtained is analysed and, if necessary, interviews with academic staff are organised in order to introduce improvements, while the data obtained in the surveys is stored in the DU survey system or Open Source Project Lime Survey (SAR, p. 40).

During the on-site visit, experts verified that completing the surveys is not compulsory for students, but teachers endeavour to encourage students to provide feedback to improve the quality of the teaching process. The survey of students and graduates is carried out by the Center of Study Quality, while the survey of employers is carried out by the study programme directors.

According to SAR, p. 41, the director of the study programme informs students, teaching staff, employers, and graduates about the changes introduced. The recommendations mentioned in the surveys and the prevention mechanisms are discussed in meetings with both the teaching staff and the students of the study field, as well as in consultations with the representatives of the sector.

Survey results are monitored at all levels of DU, and the results are discussed with the management. Based on the analysis of the documents submitted and the on-site visit, the experts can confirm that there is a system in place for the collection and analysis of data. Those data should be used for the purpose of attracting new students and promoting the study programmes. This is underpinned by the fact that the results of the survey research are nowhere to be found on the website, that there are no numerical indicators of student employability and that there are no Alumni stories.

1.2.5. The DU website contains the basic information about the university, the study programmes and it is available in Latvian and English. According to SAR, p. 42, the website provides information about the admission requirements for each study programme, the content of the study programmes, and study programme descriptions in Latvian and English, opportunities after graduation and contact information of the study programme directors. Experts noticed a difference between the amount of information available in both languages, i.e. the English version of the website contains less information than the Latvian version, which refers to the LUIS system, and refers to the description of each subject and the structure of the study programme (available on https://luis.lu.lv/du/kursa_apraksts_pub/DVID6021/1 and https://luis.lu.lv/du/kursa_apraksts_pub/DVID6021/2).

Within the LUIS system, in addition to the English, there is also a translation into Russian, French and German on the same pages in the form of an abridged version of the translation, which contains information on contact hours, lecture hours, number of hours for practical assignments, and lecturers.

The PMSP “Environmental Planning” provides a description of the study programme on the website in Latvian only, and the name of the study programme director differs from the name of the person who was present during the on-site visit, which still needs to be verified (available on <https://du.lv/en/studies/study-programmes/professional-master-study-programmes/environmental-planning/>).

When reviewing the pages, the experts found that the amount of available information does not match and that there is a need to harmonise the publicly available information. Currently, the Latvian language site provides a sufficient amount of information that prospective students need in order to get an idea of the obligations and competences they will acquire after graduation. As there is a tendency to attract foreign students and introduce study programmes in English, it is necessary to invest additional efforts in revising and editing the English version of the information. Both versions of the pages need to be fully updated to harmonise the available information with the

existing documents and the actual situation. This concerns in particular the description of the CP and ECTS credits, which differ from the credits available in the Annex: ABSP Environmental Science study plan by semesters.xlsx to the ABSP “Environmental Protection” (available on <https://du.lv/en/studies/study-programmes/academic-bachelors-study-programmes/environmental-science/>).

Conclusions on this set of criteria, by specifying strengths and weaknesses

DU has established a quality assurance system that supports the institution's strategic objectives and promotes the continuous improvement of study programmes. The system is supported by a quality policy and documents that provide the basis for management at different levels and with different stakeholders across the system. Regular feedback from students, teachers and employers is an integral part of this system and enables rapid changes and the elimination of deficiencies. It remains to be considered how and in what way all participants can be encouraged to take part in the survey and how the best model for DU can be found. The importance of this method of data collection is recognised, but it is not yet sufficiently developed in terms of relevant indicators and the number of students participating in surveys. DU has also provided additional tools for anonymous complaints, but the use of these mechanisms should be better recognised by students so that they make use of them. Although the administration is aware of the weaknesses and threats, there is no coherent approach to solve and eliminate deficiencies related to the study programmes so the PDCA cycle needs to be implemented.

In general, the DU quality assurance system is functional, with the introduction of improvements in the areas mentioned, it would be possible to ensure effective and comprehensive quality management at all levels of DU and this would ultimately lead to better recognition of the degree programmes.

Strengths:

- 1) Established quality policy and relevant documents for the implementation of the quality system at the downstream user level.
- 2) Application of formal and informal mechanisms in the development of the quality system.
- 3) Introduction of a procedure for the self-assessment of lecturers and preparation of study programme and experience reports.
- 4) Effective mechanism for addressing and resolving student complaints and suggestions, supported by clear procedures and regular monitoring.
- 5) The procedures for changing and establishing study programmes are clearly defined.

Weaknesses:

- 1) A comprehensive and data-heavy quality policy document that needs to be shortened and summarised.
- 2) The lack of a closed PDCA cycle, in which the existing quality system does not guarantee the last point, namely, the modification of plans and the introduction of improvements at a formal level.
- 3) The unclear position and neutrality of the quality department and the unfortunate formulation of the role of the controller and not the system designer.
- 4) Insufficient presentation of good indicators from surveys and success stories of graduates.

Assessment of the requirement [1]

- 1 R1 - Pursuant to Section 5, Paragraph 2.1 of the Law on Higher Education Institutions, the higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study field whilst implementing its internal quality assurance system:

Assessment of compliance: Fully compliant

DU has implemented a quality assurance system and described the necessary quality assurance processes.

- 2 1.1 - The higher education institution/ college has established a policy and procedures for assuring the quality of higher education.

Assessment of compliance: Fully compliant

A quality policy has been developed as one of the basic documents and is publicly available on the website, <https://du.lv/en/about-us/documents/> (Annex 1.3_Internal quality assurance policy of studies at Daugavpils University.pdf)

- 3 1.2 - A mechanism for the development and internal approval of the study programmes of the higher education institution/ college, as well as the supervision of their performance and periodic inspection thereof has been developed.

Assessment of compliance: Partially compliant

According to SAR p. 36, DU applies the document for the study programmes development and approval: "Daugavpils University regulations on the opening and management of study fields and study programs", which is in force since 2020. The university has rather effective procedures for acquiring and improving methodological resources and integrates feedback from students and staff, the limited availability of up-to-date physical textbooks and scientific journals highlights the need for further investment to fully support the Environmental Protection study field.

- 4 1.3 - The criteria, conditions, and procedures for the evaluation of students' results, which enable reassurance of the achievement of the intended learning outcomes, have been developed and published.

Assessment of compliance: Fully compliant

DU has developed and defined methods, principles, and procedures for assessing student achievements through the DU Protocol No 15 of 17.12.2018 "Regulations on studies at Daugavpils University". However, some improvements in the form of diverse and modern evaluation methods should be considered in order to improve the system. These approaches would provide a more comprehensive assessment of student achievements and promote critical thinking, creativity, and practical application of knowledge, aligning the system with contemporary educational practices.

- 5 1.4 - Internal procedures and mechanisms for assuring the qualifications of the academic staff and the work quality have been developed.

Assessment of compliance: Partially compliant

Based on site visit, regular student surveys are conducted to evaluate the work of the academic staff. However, this system does not fully meet expectations, as certain limitations hinder its overall effectiveness, and the actual implementation of improvement measures is not as robust as intended.

- 6 1.5 - The higher education institution/ college ensures the collection and analysis of the information on the study achievements of the students, employment of the graduates, satisfaction of the students with the study programme, efficiency of the work of the academic staff, the study funds available and the disbursements thereof, as well as the key performance indicators of the higher education institution/ college.

Assessment of compliance: Fully compliant

In accordance with SAR, p.40-41, DU collects and analyses a wide range of data on student satisfaction, graduate employment and other key indicators related to the improvement of the study field and study programmes.

- 7 1.6 - The higher education institution/ college ensures continuous improvement, development, and efficient performance of the study field whilst implementing its quality assurance systems.

Assessment of compliance: Partially compliant

According to the on-site visit, DU regularly and carefully analyses the data it has received on the availability of resources, academic staff and student welfare in general and initiates the necessary changes. However, the importance of the survey method of data collection is recognised, but it is not yet sufficiently developed, also there is no coherent approach to solve and eliminate deficiencies related to the study programmes.

1.3. Resources and Provision of the Study Field

Analysis

1.3.1. The funding system at DU for the Environmental Protection study programmes and related research activities is a structured but multifaceted process that combines state support, tuition fees, and competitive grants. The main funding for study programmes comes from the state budget (grants) and tuition fees. In addition, students can apply for tuition fee discounts.

Faculty members have the opportunity to apply for internal research funding through the university's annual project competition, which supports scientific development and cooperation. This competition aims to promote research excellence, practical application of findings, and opportunities for external funding. In 2023, the total funding for research projects amounted to EUR 51,000, with a maximum grant of EUR 3,000 per project. In addition, bachelor and master's students can also apply for research grants, with a fund of EUR 24,000 in 2023 and a maximum grant of EUR 2,000 per project. Successful student projects also include monthly stipends, providing financial support during the research period.

Funding for educational materials such as laboratories, books and equipment comes from external projects such as ERDF or ESF, as well as from research contracts with external entities. DU allocates funds for scientific development based on the research achievements of staff, distributing resources to scientific missions, events and research support materials. DU staff are eligible for financial awards based on publications in indexed journals and the Hirsch index, which motivates both scientific performance and citation results. This system aims to balance educational and research excellence while ensuring long-term growth through external partnerships and competitive funding mechanisms.

1.3.2. DU has a well-developed infrastructure and material resources necessary for studying the Environmental Protection major. Research and development activities are primarily supported by the Faculty of Natural Sciences and Health Care and the Institute of Biological Sciences and Technologies. Most academic activities are held at the Parades iela campus, where auditoriums and laboratories are equipped with the necessary technical resources, such as computers, projectors and laboratory equipment, which are used both for lectures and practical classes (SAR, p. 45)

In addition to lecture halls, students have access to more than 20 specialized research offices and laboratories at both the Faculty of Natural Sciences and the Institute of Biological Sciences, covering such fields as ecology, biotechnology and applied chemistry. Students also use the DU Study and Research Center "Ilgas" for fieldwork, and the Latvian Hydroecology Institute (LHEI) provides additional facilities for hydroecological research.

Over the past decade, DU has strategically invested in the modernisation of its research and development infrastructure. Key modernisation projects include ERDF-funded initiatives to enhance

STEM, healthcare and arts degree programmes, as well as the development of research infrastructure in areas such as biology, nanomaterials and materials engineering. These projects, worth over €21 million in total, have enabled the purchase of state-of-the-art equipment, the renovation of laboratories and auditoriums, and improved accessibility for students with functional disabilities (SAR, p.45).

In addition, DU provides modern accommodation, sports facilities and constant access to digital resources such as internet, Moodle, email and teleconferencing platforms such as Zoom. These comprehensive resources support both the academic and research needs of students and staff in the field of environmental protection.

Overall, DU's infrastructure modernization has significantly improved the quality of teaching and research, providing students with the resources and facilities needed to excel in the Environmental Protection study programmes. The university's investment in digital resources, including constant internet access, e-learning platforms like Moodle, and teleconferencing tools, further supports the academic and research activities of students and staff.

1.3.3. DU has established a system and procedures to ensure the continuous improvement and purchase of methodological and informational resources. This system is designed to meet the needs of students and faculty within the Environmental Protection study field.

DU has implemented a structured process for the improvement and acquisition of educational materials, which includes regular updates to textbooks, teaching materials, and access to modern digital tools. The university relies on feedback from academic staff and students to identify gaps in the available resources, ensuring that study materials remain relevant and up-to-date. This process includes the purchase of new publications and databases that align with current trends and research within the environmental sciences.

The improvement system is also linked to the university's internal quality assurance mechanisms, which involve periodic reviews of the study materials to ensure they reflect the latest developments in the field. Academic staff play a key role in identifying necessary updates, and budgetary provisions are made to support the purchase of these resources.

In response to student feedback during the previous accreditation period, the library's hours have been extended. Since the fall semester of 2018, the library has been open from 9:00 to 20:00 on weekdays and from 10:00 to 16:00 on Saturdays, which has been well received by students. This ensures that students have ample time to utilize the library's resources for their academic and research needs. DU has ensured that library resources and access to scientific databases (SAR, p. 49) are available to students in the Environmental Protection study programmes. The university's library provides a broad range of academic texts, journals, and digital resources that are relevant to the study field. Students and faculty have access to international databases, such as Web of Science and Scopus, which are essential for academic research in environmental sciences.

While the university has made significant investments in improving library resources, the SAR (p. 43) also highlights some challenges, such as the limited availability of the most recent textbooks and scientific periodicals. This is identified as a weakness in the SWOT analysis, indicating that while the existing resources are generally sufficient, there is room for improvement in expanding access to the latest scientific literature (SAR, p. 43)

The procedures for acquiring and improving methodological resources at DU are largely effective, but there are some areas where enhancements are needed. The university's integration of feedback from students and academic staff into its resource planning process demonstrates a commitment to aligning its library and educational resources with the specific needs of the Environmental Protection study field. However, the limited availability of up-to-date resources, particularly in terms of physical textbooks and scientific journals, indicates that further investment may be necessary to fully meet the evolving needs of the study field.

1.3.4. DU has developed and implemented various information and communication technology (ICT) solutions to support the study process in the Environmental Protection study field. These tools are crucial in ensuring that the academic experience is modern, accessible and in line with technological progress in higher education. Below, there is a detailed analysis of the ICT solutions used at DU, with special attention paid to their appropriateness and effectiveness, especially in the context of communicating with students using popular communication applications (such as Whatsapp).

DU utilizes the Moodle e-learning platform as the primary tool for organizing and managing the study process. Moodle is well-suited for handling a wide range of teaching and learning activities, including access to study course materials, submission of assignments, online discussions, quizzes, and assessments. The platform is widely regarded as user-friendly and offers flexibility for both students and instructors in managing their coursework.

Additionally, DU integrates other digital tools, such as Microsoft Teams and Zoom, for real-time communication, lectures, and consultations. These tools have proven particularly effective for remote or hybrid learning setups, allowing seamless interaction between students and faculty. The use of these platforms became especially important during the COVID-19 pandemic, and DU adapted quickly by expanding its ICT capabilities to accommodate online learning.

Although DU's Environmental Protection study programmes are primarily offered in-class, the ICT solutions in place are capable of supporting remote learning if needed. The Moodle platform and supplementary tools like Zoom are fully functional for conducting remote learning activities. The integration of these tools allows for synchronous and asynchronous learning, which is essential for students who may not be able to attend in person.

In cases where remote learning is implemented, students can access all necessary materials, attend live virtual lectures, and submit assignments without physical presence at the university. Additionally, online forums and discussion boards foster collaboration and communication among students, even when studying remotely.

The ICT solutions employed by DU have proven effective in maintaining the continuity of the study process, particularly during times when physical attendance has been limited. Students benefit from the flexibility offered by these tools, enabling them to study at their own pace, access materials from any location, and receive timely feedback from instructors.

1.3.5. DU has established well-defined, transparent procedures for attracting qualified teaching staff within the Environmental Protection study field. These procedures are designed to ensure that the recruitment process is open, competitive, and aligned with the university's strategic goals of academic excellence. The involvement of relevant stakeholders in this process helps maintain the quality of the teaching staff and ensure their qualifications are suited to the needs of the study programmes (SAR, p. 51).

DU follows a formal and standardised process for recruiting teaching staff, which includes public announcements of vacancies, a competitive selection process, and clear criteria for assessing candidates. The process is conducted in accordance with Latvian higher education regulations and DU's internal guidelines, ensuring compliance with national standards for academic recruitment. Vacancies are publicly advertised on the university's website and other platforms, ensuring transparency and access to a wide pool of potential candidates. The selection process involves a thorough review of the candidates' academic qualifications, research experience, teaching skills, and their alignment with the strategic needs of the study programmes. This ensures that only candidates with the appropriate level of expertise and experience in environmental science and related disciplines are considered for teaching positions.

The recruitment process at DU involves various stakeholders, including members of the academic community, departmental heads, and external experts where relevant. This multi-level involvement ensures that the recruitment decisions are well-informed and consider multiple perspectives, including the specific needs of the study field and feedback from relevant parties. This approach

contributes to maintaining a high standard of teaching quality and ensuring that new staff members are well integrated into the academic environment. Students are also indirectly involved through regular feedback mechanisms, as their evaluations of current teaching staff can influence future hiring decisions and departmental needs.

DU recruitment procedures are characterized by their openness. The public nature of vacancy announcements and the clear criteria for selection help ensure that the process is fair and transparent. Information about the selection process and the requirements for academic staff positions is accessible, and candidates are evaluated based on merit and their ability to contribute to the study field.

Additionally, the university regularly updates its academic community about changes in hiring needs or priorities, ensuring that all relevant stakeholders are kept informed. This level of openness helps build trust in the recruitment process and ensures that qualified candidates are attracted to the available positions.

Vacancies for academic positions are publicly announced on the DU website and in the official publication of Latvia, "Latvijas Vēstnesis," providing an opportunity for any interested individual to apply within one month. Both Latvian and foreign citizens who meet the academic and professional qualifications, and have proficiency in the national language and English, are eligible to apply. (SAR, p. 51). Elections for docents, leading researchers, lecturers, researchers, assistants, and research assistants are conducted by open voting within Faculty Councils or Scientific Councils of scientific institutes. The results are confirmed at the DU Senate meeting. Elections for professors and associate professors take place in the council of professors for the respective field of science. Full-time and elected lecturers sign six-year employment contracts, while visiting lecturers, typically hired for their specialized expertise, sign contracts for one academic year or semester. The process of attracting teaching staff is open, ensuring transparency and allowing both current DU staff and external candidates to apply for available positions.

The procedures in place for attracting qualified teaching staff at DU are effective in ensuring the recruitment of competent and experienced personnel. The selection criteria focus on both academic qualifications and practical teaching ability, which aligns with the dual focus of the Environmental Protection study field on academic rigor and practical application. However, challenges remain, such as the non-competitive salaries for academic positions, which may hinder the ability to attract top-tier international talent.

1.3.6. DU has established a system for identifying and addressing the professional and didactic development needs of its teaching staff in the Environmental Protection study field. However, this system does not fully meet expectations, as certain limitations hinder its overall effectiveness. While DU systematically identifies professional development needs through feedback mechanisms such as student evaluations, peer reviews, and performance assessments, the actual implementation of improvement measures is not as robust as intended. Heavy workloads and limited time availability restrict staff participation in these opportunities, which impacts the overall effectiveness of the system.

DU offers a variety of professional development initiatives, including participation in national and international research projects, pedagogical training, and mobility programs like Erasmus+. However, the high academic workload of teaching staff often limits their ability to fully engage in these opportunities, reducing the overall impact of the development efforts. Additionally, although DU uses quality assurance processes to evaluate the results of its development measures, the outcomes do not always translate into meaningful changes in practice due to the aforementioned constraints.

In conclusion, while DU has a system in place for professional and didactic development, the heavy workload of academic staff and insufficient time for participation make it less effective than expected. More targeted measures to reduce staff burdens and improve engagement in professional

development initiatives are needed to enhance its overall impact.

1.3.7. At DU, efforts have been made to balance the academic, research, and administrative workload of teaching staff in the Environmental Protection study field. However, based on both the content of the documents and feedback from the onsite meeting with teaching staff, it is clear that this balance is not effectively maintained in practice. The workload of the teaching staff at DU in the study field "Environmental Protection" appears to be somewhat imbalanced. While a total of 37 teaching staff are involved in delivering the study programmes, there is a significant reliance on a few staff members, particularly those with doctoral degrees, who take on a heavier academic load. For example, in the ABSP "Environmental Science," the majority of the teaching staff (71.4%) hold doctoral degrees, while in the PMSP "Environmental Planning," only 45% of the lecturers have doctoral qualifications.

The involvement of guest lecturers, particularly in the PMSP, adds practical experience to the study programme, but the teaching responsibilities for full-time staff remain high, especially given the limited recognition of non-contact work in the official workload calculation. This means that lecturers are often required to teach multiple study courses to fulfill their workload and achieve appropriate compensation, which may detract from their ability to engage in research or focus on methodological improvements.

DU does encourage the recruitment of more doctoral-level teaching staff to ensure the quality of the study programmes. However, the high workload imposed on current staff, coupled with the challenge of balancing academic duties with research and development activities, presents a barrier to optimizing both educational and scientific output. Additionally, while the inclusion of industry professionals enriches the learning process, the workload distribution among the academic staff, especially regarding research activity, appears to be an area requiring improvement.

This structure may impact the long-term sustainability of staff contributions, as heavy academic teaching loads can limit the capacity for research, which is essential for professional development and maintaining the academic rigor of the study programmes.

The official documentation suggests that DU attempts to manage the teaching workload of its academic staff. However, during onsite discussions, teachers reported that their actual teaching responsibilities are disproportionately high, leaving them with little time for other essential activities such as research, professional development, and student consultations. The academic staff at DU frequently face heavy contact hours, with some reporting teaching schedules that far exceed what is sustainable for maintaining quality instruction alongside other responsibilities. This significant teaching load detracts from their ability to engage in research and other academic endeavors. The problem is particularly pronounced in the Environmental Protection study field, where faculty members are expected to maintain strong research profiles in addition to fulfilling their extensive teaching duties. The imbalance highlighted during the onsite meetings indicates that the formal procedures for workload management are not translating effectively into practice.

The onsite meetings revealed that, despite the university's encouragement of research activities, many faculty members struggle to find the time to dedicate to meaningful research due to their overwhelming teaching obligations. While the documentation points to an institutional expectation for academic staff to engage in research, in practice, the heavy teaching burden makes it difficult for faculty members to meet these research expectations. Several staff members expressed concerns that their research output is suffering because they cannot balance their research responsibilities with their teaching commitments. In addition to academic and research duties, many faculty members are burdened with administrative responsibilities. The documentation acknowledges that administrative tasks are part of the academic role, but the feedback from the onsite meeting suggests that these responsibilities are often excessive. The combination of administrative duties with a high teaching load further strains the capacity of staff to engage in research and develop professionally.

Faculty members reported that the administrative tasks required of them, such as attending meetings, preparing reports, and participating in university committees, are often time-consuming and leave them with little energy or time to focus on their core teaching and research roles. This creates a sense of overload, which was emphasized during the onsite discussions as a major issue affecting the well-being and productivity of staff.

While the official documentation suggests that DU has procedures in place to balance workload, the reality described by the teaching staff during the onsite meetings presents a different picture. Faculty members consistently reported feeling overworked, with many expressing concerns about burnout. The documented system for balancing academic, research, and administrative duties does not appear to be functioning effectively in practice, as staff members are not receiving sufficient relief from their heavy workloads. Moreover, the issue of non-competitive salaries, which was highlighted in both the document and the onsite discussions, exacerbates the problem. The university struggles to attract additional staff to help distribute the workload more evenly, which puts even more pressure on the existing faculty members. This issue was confirmed by teachers during the onsite visit, who expressed frustration at the lack of adequate compensation and support for their excessive workloads.

1.3.8. DU has established a comprehensive support system to meet the diverse needs of its students, including international students, part-time learners, distance learners, and students with special needs. The Student Service Center (SSC) plays a central role in this system, providing a range of administrative services such as issuing certificates, advising on study-related matters, and organizing informative events like career days. Additionally, students can seek individual support and advice from faculty deanships, department heads, and study programme directors.

DU offers targeted assistance to students who face academic challenges, with study programme directors organizing one-on-one meetings to address issues such as attendance or academic performance. The university also employs modern communication methods, such as social networks and online platforms, to support students and maintain regular follow-up meetings.

The infrastructure at DU is designed to be inclusive. The university has modernized its facilities to improve accessibility for students with disabilities, including those with movement, vision, or hearing impairments. DU efforts were recognized in 2016 with the "Education for All" award by the Latvian Association of Disabled People, acknowledging DU leadership in ensuring accessible education. Additionally, DU provides facilities such as children's rooms for students who are young parents, allowing them to care for their children while attending classes.

The university offers a variety of other student support services. The Psychological Support Center provides free counseling to help students and staff with personal, academic, or work-related challenges. Medical support is also available on campus through a certified health office. Furthermore, the Student Social Support Program provides financial assistance for students in difficult social or financial situations, offering up to 50% rent support for dormitories.

Career development is supported through the Career and Initiative Support Centre, which promotes career services, voluntary work, and initiatives aimed at enhancing the professional skills and competitiveness of DU students and Latgale region residents. The Centre also facilitates cooperation with other educational institutions and organizes events to update students' skills.

International students, especially those participating in the ERASMUS+ exchange program, are assigned a responsible person within their faculty to monitor their academic progress. Additionally, DU provides a "buddy" system to help international students integrate into university life, with regular meetings with ERASMUS+ coordinators to ensure their safety and address any potential risks. Free Latvian language courses are also available to help foreign students adapt to life in Latvia.

DU support system is well-structured, inclusive, and responsive to the diverse needs of its student body, providing a wide array of services that enhance both academic and personal success.

Conclusions on this set of criteria, by specifying strengths and weaknesses

DU has established effective systems for financial support, ICT solutions, and student services, which contribute positively to the implementation of the Environmental Protection study field. However, significant challenges remain, including the heavy workload of teaching staff, limited access to updated resources, and non-competitive salaries. These issues hinder research productivity, professional development, and the university's ability to attract and retain top-tier talent. Improving staff workload balance, increasing investment in updated resources, and addressing salary concerns are essential to enhancing the overall effectiveness of the study field.

Strengths:

- 1) DU has a structured system for allocating financial support, aiding the effective implementation of the study field and research projects, especially through EU-funded programs like Horizon 2020.
- 2) DU has invested in ICT solutions like Moodle supporting both in-class and remote learning. Library access to databases such as Web of Science and Scopus also benefits students and staff.
- 3) DU offers a support system for various student groups, including academic advising, flexible schedules, and services for international students, students with disabilities, and part-time learners.

Weaknesses:

- 1) High staff workloads limit engagement in research and professional development, with workload management not functioning as intended, leading to concerns about burnout.
- 2) Heavy teaching loads reduce staff participation in development and mobility programs, weakening the effectiveness of staff development efforts.
- 3) Low salaries hinder DU ability to attract and retain highly qualified staff, threatening the sustainability of academic and research programs.

1.4. Scientific Research and Artistic Creation

Analysis

1.4.1. The strategic specialisation of institutions of higher education in Latvia is specified in Cabinet of Ministers Regulation No. 449-21.06.2022, "On the strategic specialisation of public universities." In the case of Daugavpils University, three areas are defined: natural sciences, social sciences, and humanities and art sciences. Natural sciences were developed into the study field "Environmental Protection" in two study programmes: the Academic Bachelor Study Programme "Environmental Science" and the Professional Master Study Programme "Environmental Planning."

The DU strategic objectives stipulate that high-quality higher education, including theoretical knowledge and skills, international competitiveness, and openness to technology transfer and innovation, is ensured while DU development as a regional science centre is ensured (SAR, p. 6); and these strategic objectives were also fulfilled within the study field "Environmental Protection". Totally 13 different specific and diverse scientific research directions were postulated (SAR, p. 59-60), including biological diversity, water quality and other topics.

Additionally, the importance of study field "Environmental Protection" is described from national development point of view, showing linkage between strategic planning documents in Latvia (e.g. "Latvijas pielāgošanās klimata pārmaiņām plāns laika posmam līdz 2030. gadam"), international development documents (e.g. The European Green Deal) and potential benefit and contribution to Latvia.

In general, activities included in the Study field development plan (SAR, Annex "2.1.2_Study field development plan summary_EN.docx") are in line with development goals of DU within all fields (research, studies and materials technical provision), but it should be noted that all proposed activities are qualitative, thus none of these activities could be verified in order to monitor progress.

1.4.2. Scientific and applied research in the studies is carried out systematically through participation in local and international scientific conferences. According to SAR (Annex 2.4.4. Compilation of Quantitative data environmental protection.docx), in the reporting period 2017-2024, 96% of elected academic staff participated in scientific conferences at least once. When analysing trends, elected academic staff's participation intensity (median) is 0.7, referring to the annual period. The activity rates of visiting lecturers are lower; 40% of visiting lecturers participated in conferences, and participation intensity (average) is 0.1 for the year.

The involvement of academic staff in research projects to ensure the development of the study direction in natural sciences in conformity with the development objectives of DU and the study field is given in SAR Annex "2.4.4 Scientific publications and participation in projects environmental Protection. zip". The themes of projects implemented during the reporting period are dominated by areas related to water quality and resources, biodiversity, and material science. The fields of the performers of projects - academic staff and specific study courses not overlapping, for example, academic staff, under the direction of which air pollution topics are offered, have not participated in the implementation of the relevant field. It is also a drawback that not all academic staff are involved in implementing projects, thus building scientific capacity.

According to SAR, p. 66, Figure 2.4.5.1, academic staff participation in conferences has been declining since 2021. Controversial information concerns academic staff participation in national-level conferences - since 2022, academic staff has not attended national-level conferences (SAR, p. 66, Figure 2.4.5.1), while academic staff resumes (SAR, Annex CV_EN.zip) include such conferences, e.g., the 65th International Conference of Daugavpils University. This statement comes from the analysis of teaching staff CVs and information written in the self-evaluation report. According to DU explanation, national conferences are conferences in Latvian, and DU assumes that all academic staff participated only in these reclassified international conferences. But the experts have checked all CVs and found that some of the teaching staff participated in national conferences. Experts admit that there is a very flexible classification of conference type, which was not explained in the report.

1.4.3. International cooperation and applied research at DU are carried out at different levels. Academic staff engages in the implementation of scientific research projects (HORIZON 2020, LIFE, ESF, ERAF, and others), involved in international networks, and associations (EGU, ProGEO), (SAR p. 62). Practical cooperation is implemented by involving social partners (employers, public administration organisations), which ensures interaction with research, and an overview of current problems in the study process (SAR, p. 62) cites one example of an international project called "TechPlastControl" where involvement of PMSP "Environmental Planning " is implemented.

According to SAR (Annex 2.4.4. Compilation of Quantitative data environmental protection.docx), during the reporting period 2017-2024, 85% of elected academic staff participated in project implementation, while guest lecturer project involvement activity was 70%.

International cooperation is also offered through Erasmus+ activities, with more than 90 cooperation contracts (22 countries). Mobility indicators for academic staff are given in Annex SAR (2.5.3. Mobility of academic staff environmental protection.docx). On average per annum, nine of the academic staff participated in mobility during the reporting period (2017-2023), representing 24% of the staff. However, there has been a slight downward trend in academic staff mobility since 2017.

The SAR does not provide concrete data-based evidence on integrating project results and international cooperation activities into the undergraduate program. The development plan for studies and science is set out in the SAR (Annex "2.1.2_study field development plan summary_EN.docx"), which is qualitative, without quantifiable targets.

1.4.4. Increasing the scientific capacity of academic staff is implemented in a diverse way - scientific publications, participation in scientific projects, participation in conferences, and internal and mutual cooperation. Internal documents (such as "Procedure in which scientific publications and

monographs of the academic staff of Daugavpils University are paid for”) providing financial support for the writing of publications and monographs, participation fees in conferences (SAR, p. 64) have been developed for the promotion of the involvement of teaching staff.

In SAR, p. 60, it is stated that 37 lecturers are involved, and 12 of them with Latvia Science Council experts rights. But in Annex “2.3.7. Basic information about the teaching staff involved in the implementation of the study field.xlsx” says that there are only 36 lecturers. In the SAR (section 2.4. Scientific Research and Artistic Creation) from p. 50., without using specific examples and references, it generally mentioned that academic staff engaged in various professional development activities on a targeted and regular basis in fields relevant to their scientific interests, either in DU and Latvian and foreign institutions of higher education. During the site visit, the academic staff mentioned opportunities to learn English in depth. According to the Annex “CV_EN.zip,” which compiles the CVs of teaching staff, 24% of teaching staff (i.e., 9 persons) participated in vocational training and career growth courses.

Overall, there has been an increase in publications since 2017. However, publication activities are wavy; for example, there has been a downward trend in recent years (2021-2023). Information on publicity activities of academic staff is summarised in several annexes (2.4.4. Compilation of Quantitative data environmental protection.docx; 2.4.4.Scientific publications and participation in projects environmental protection.zip). The information provided in both annexes is provided for each academic staff member. Still, since several academic representatives co-author many publications, no precise information on the publications of the study field can be obtained to avoid counting overlaps. The majority of scientific publications (79% on average between 2017 and 2023) have the authority of elected academic staff, with the lowest being in 2023 - 57%. Publication practices are heterogeneous, with 26 % of academic staff missing scientific publications since 2018.

1.4.5. Scientific and applied research of students were organized during the studies and preparation of the final thesis (Bachelor's and Master's theses). In total, 51 Bachelor's and 44 Master's thesis (SAR, p. 65) were defended during the reporting period (2017-2023). According to the additional information provided by DU regarding defended final works, there is a downward trend in the number of defended works, and a relatively steeper decrease is observed in the case of bachelor's works. Students have the possibility to participate in internal DU grant competitions annually since 2020 to encourage student involvement in research. In addition, students are invited to attend conferences annually. According to SAR, p. 66, while a significant number of students attend conferences, the number of participants has been declining annually since 2021.

1.4.6. Various forms of innovation are used in DU. Product innovation ensures that work is done on specialised premises and in scientific laboratories, which ensures the possibility of developing high-quality research works, as evidenced by the additional information provided regarding the evaluation of the final work. The ratings obtained are mostly very good and high. Facilities are well equipped, as shown in the Annex to the SAR (2.3.2. Infrastructure and material and technical support for _LV.docx) information provided. In experts' opinion, facilities and laboratories are quite well equipped with modern instruments. Mobile instruments for field research are appropriate, and PCs and software are available for remote work (on-site observation).

The process innovations implemented relate to modernising the E-study environment. This E-study environment is used in a wide variety of ways, including teaching materials, lecture recordings, and test works for students. Both students and academic staff can access training materials to work in an E-study environment.

Marketing innovations provide information about the study field to the general public and mentions a significant reconstruction of DU website in 2022 (SAR, p. 63). During the on-site visit, it was determined that the information on the website has not been renewed, for example, the current available study calendar refers to the study year 2022/2023, information regarding study plans has

been provided incorrectly (incorrect calculation of ECTS), information in English differs from information in Latvian (the list of lectures in Latvian is available for the autumn semester of 2024 and in English for the spring semester of 2023).

Organisational innovations relate to circulating and managing internal documents, including preparing diplomas. During the on-site visit, the E-study environment was demonstrated from the perspective of academic staff; there was an opportunity to become acquainted with laboratories, available facilities, and resources for ensuring study work. The SAR does not include information on the impact of different types of innovation on the study process.

Conclusions on this set of criteria, by specifying strengths and weaknesses

Latvian legislation specifies DU strategic specialisation. The strategic objectives of the "Environmental Protection" study field conform with the developed directions. The need for both study programmes is justified regionally, nationally, and internationally.

The development plan for the study field needs more quantitative criteria to monitor achievements. The capacity of elected academic staff is continuously maintained, although there is a downward trend in publishing, conference attendance, and mobility. Guest lecturer rates are significantly lower. The number of students also tends to decline, lowering student activity rates at conferences. The grant system for student research work is positive.

Strengths:

- 1) DU is an essential regional educational centre where environmental professionals are educated.
- 2) Grant support program for students to engage in research.

Weaknesses:

- 1) Increasingly lower participation of academic staff in conferences, lower publication rates and mobility indicators.
- 2) The development plan of the study field is too general, and no quantitative indicators are included.

Assessment of the requirement [2]

- 1 R2 - Compliance of scientific research and artistic creation with the level of development of scientific research and artistic creation (if applicable)

Assessment of compliance: Fully compliant

Scientific research in the study field is in line with the level of the development of scientific research.

1.5. Cooperation and Internationalisation

Analysis

1.5.1. The cooperation between DU and Latvian institutions in the Environmental Protection study field demonstrates a well-established and multifaceted cooperation. This partnership is essential in achieving the goals and learning outcomes of the study field and its related programmes.

The DU lecturers from the Faculty of Environment and Technology collaborate with their counterparts from the University of Latvia and Riga Technical University through joint EU-funded projects, conferences, research and publications. During the reporting period, cooperation with Latvian higher education institutions, employers, state institutions, and municipalities has expanded.

New agreements were made with the State Environmental Service, Nature Protection Board, companies in climate-neutral energy research, and the Daugava Union association (SAR, p. 70). In addition, the university supports contacts with employers, regional institutions and schools to enhance students' professional skills and practical experience. Lecturers also engage in pedagogical activities in Latvian schools, attracting prospective students. Industry experts actively participate in the study process by giving guest lectures, sitting on examination committees and hosting students for internships, providing invaluable insights into real-world applications (Annex 2.5.1. "Cooperation partners").

Employers contribute significantly to shaping and improving the curriculum, ensuring alignment with market requirements. Collaboration with local and regional employers, municipalities and state institutions not only strengthens DU regional development but also ensures that study programs are designed to meet the needs of the labor market. At DU, employers are attracted to collaborate in the "Environmental Protection" study field through various strategies. These include formal partnership agreements, offering practice opportunities, guest lectures, and involvement in examination commissions. Joint research projects are also conducted, and continuous feedback from employers is gathered through surveys and regular communication to align study programmes with industry needs.

In summary, DU strategic partnerships with Latvian institutions, employers and scientific bodies foster a dynamic and responsive educational environment, significantly contributing to the achievement of the goals and outcomes of the study programmes. This cooperation increases the employability of graduates while driving research and innovation in environmental sciences.

1.5.2. DU has established extensive international cooperation with some higher education institutions, research institutes and other organizations abroad, which significantly contributes to the achievement of the goals and learning outcomes in its fields of study. These cooperations cover different regions, including the European Union, Asia and North America, and are in line with the specific requirements of the fields of study, especially in environmental protection, natural sciences and related disciplines.

DU engages in joint research projects, scientific publications and mobility programs with partners such as the University of Latvia, Riga Technical University and international institutions such as Manchester Metropolitan University (UK) and Mindanao University (Philippines). These partnerships strengthen academic exchanges by offering students and faculty opportunities for joint research, participation in conferences and project involvement, which promotes both scientific development and practical knowledge. For example, the university's collaborations with academic institutions such as the Smithsonian Tropical Research Institute in Panama focus on tropical biodiversity research, contributing to global conservation efforts.

DU also participates in major EU-funded projects such as Horizon 2020, enabling collaborations with institutions such as the University of Glasgow, Universitat Pompeu Fabra and the Helmholtz Centre for Environmental Research. These projects are essential to the development of environmental science research, ensuring that the learning outcomes of DU study programmes remain relevant to international developments.

In addition, through mobility initiatives such as Erasmus+, DU provides students and faculty with access to a diverse learning environment, enriching the academic experience and contributing to the development of transferable skills that meet the demands of the international job market. Partnerships with employers and organizations in countries such as Poland, Italy and Spain also strengthen the practical application of theoretical knowledge, ensuring that DU graduates are well-prepared for professional roles.

In summary, DU's strategic collaborations with international institutions are an integral part of its academic and research excellence. These collaborations not only enhance the quality of education by integrating global perspectives, but also provide students with key opportunities for personal and

1.5.3. Daugavpils University (DU) has developed a structured and effective system for attracting international teaching staff and students within the "Environmental Protection" study field, fostering both incoming and outgoing mobility. This system has significantly enhanced the study process and the overall quality of education offered.

Between 2017 and 2023, DU's teaching staff actively participated in Erasmus+ mobility programs, focusing on professional development and teaching opportunities. The mobility destinations included countries such as Lithuania, Denmark, Poland, the Czech Republic, Turkey, and Finland. This outgoing mobility not only provides DU lecturers with valuable international experience but also facilitates knowledge transfer that enriches the curriculum and teaching quality at DU. Professional development ensures that the staff stays updated with the latest pedagogical methods and advancements in environmental research (SAR, p.73).

However, incoming mobility of foreign lecturers to DU is lower. Between 2017 and 2023, there have been only 9 foreign lecturers, all from Lithuania. Although the number of incoming foreign lecturers is modest, their contributions add diversity and international perspectives to DU's academic environment, benefiting students.

In terms of student mobility, DU has made strides in attracting foreign students, primarily through short-term programs like the "Learn Russian in the European Union" project, which brought six students from the USA to participate in courses related to Environmental Protection. However, these students did not enroll for the full study programme, highlighting an area for potential growth in attracting long-term international students. DU students have actively participated in outgoing mobility, with several students engaging in study and internship opportunities in countries such as Poland, Lithuania, and the Czech Republic. These experiences enhance the educational process by exposing students to different academic environments and practical applications of their studies.

Additionally, DU has attracted foreign students from countries like the USA, the Philippines, Spain, and Lesotho, who have participated in short-term mobility programs in fields such as environmental science, remote sensing, and geospatial analysis. While the majority of foreign students participate in short-term programs rather than full-time study, their presence adds a valuable global dimension to DU's academic environment. This interaction fosters cultural exchange and broadens the perspectives of local students, enhancing communication skills and promoting a more inclusive learning environment.

In summary, DU's system for attracting international staff and students through mobility programs is effective, providing significant value to the academic environment. Outgoing mobility promotes professional growth for staff, while incoming mobility introduces diverse teaching approaches and global perspectives. Although there is potential to increase the number of full-time international students, the current system strengthens DU's global outlook and enhances the overall quality of the Environmental Protection study field.

Conclusions on this set of criteria, by specifying strengths and weaknesses

Overall, DU's cooperation with both Latvian and international institutions and its mobility programs are major strengths that significantly contribute to the achievement of study program objectives. However, there is room for improvement in increasing the incoming mobility of academic staff and international student enrollment to further enhance the internationalisation of the institution. Despite success in attracting foreign students through mobility programs, the institution has yet to significantly increase international student enrollment, which could enhance diversity and enrich the study environment.

Strengths:

- 1) DU partnerships with Latvian and international institutions enhance the study field through research, skills development, and industry links.
- 2) Staff and student mobility enriches education with diverse practices and global perspectives.
- 3) Foreign student exchanges foster cultural exchange and improve communication skills, supporting learning outcomes.

Weaknesses:

- 1) The low number of incoming international academic staff limits deeper internationalization and presents an area for improvement.

Assessment of the requirement [3]

- 1 R3 - The cooperation implemented within the study field with various Latvian and foreign organizations ensures the achievement of the aims of the study field.

Assessment of compliance: Fully compliant

DU has strong cooperation with Latvian and international institutions, contributing significantly to the study field's aims through joint research, publications, and exchanges. The experts would like to emphasise that improvements are needed to increase incoming international teaching staff and international student enrollment.

1.6. Implementation of the Recommendations Received During the Previous Assessment Procedures

Analysis

1.6.1. Previous evaluation of the study field was carried out more than ten years ago - in 2012 and 2013, as mentioned in the SAR, p.74-75 and no licenced study programmes were introduced during this time period. The implementation of the received recommendations DU has summarised in the annex "2.6.1. Overview of the implementation of study direction accreditation recommendations.docx". Therefore, it is important to take into account that recommendations the study field has received, are probably out of date and it is not always possible to evaluate implementation of them, for example, recommendation "Methodical, informative and technical means are at a high level, further development is planned (construction of a new laboratory building)" is not measurable and won't be analysed here. Also, "DU has diversified funding sources and is very actively learning EU funding (structural funds). More state budget places could be offered." cannot be evaluated as a recommendation and, as university states in annex "2.6.1. Overview of the implementation of study direction accreditation recommendations.docx", currently the number of budget places in study programmes is determined by the Ministry of Education and Science. Additionally, current dynamics of the number of students in this study field (annex "3.1.4. Statistics on students Environmental protection.xlsx") does not indicate a need for more state-budget funded places. It should be noted that the University does not specify the procedures and responsible persons by which the recommendations received were analysed and their implementation reviewed.

In 2012, after international evaluation, carried out within the project "Evaluation of higher education study programs and proposals for quality improvement (No. 2011/0012/1DP/1.1.2.2.1/11/IPIA/VIAA/001), DU received three recommendations regarding study field "Environmental protection", two of them were similar to ones received after study field accreditation in 2013. First, University had to promote exchange programs for students, which is similar to the recommendation that additional development activities should be implemented to

increase students' mobility. Although DU sees that recommendation is being implemented, that is quite not true and students' mobility numbers are still low - annex "2.5.3. Statistical data on program student mobility.docx" states that since 2016 only nine students from this study field have been on study mobility (to Lithuania, Poland and the Czech Republic) and seven have been in practice mobility (all of them - in Lithuania). Unfortunately, in the last two academic years (2022/2023 and 2023/2024) none of the students has used mobility opportunities. The same annex states that "There is no incoming student mobility during the reporting period", but annex "2.5.3. Statistical data on foreign students Environmental protection.docx" shows that 45 students from abroad have taken some course from the study field "Environmental protection" study programmes since 2016. Incoming mobility is happening in the form of students that take at least some study courses from this study field, but there still is a place for improvement and having more students in one study course should ease the workload of academic staff, because now lecturers have to work almost individually with students from abroad. Nevertheless, DU should definitely do more to improve outgoing mobility, also by offering more short-term visits and enhancing students' outgoing mobility. DU also had a connected recommendation - "to strengthen cooperation with national and foreign research institutions". It is almost impossible to measure implementation of it, but annex "2.5.1. Cooperation partners.docx" shows a long list of partners (local and foreign, industrial, research and academic) and annexes "2.4.4. Publications" and "2.4.4. Participation in projects" show that cooperation in the field of research is at a good level, though could be enhanced in academic fields and promoted more regular students' involvement, especially in mobility and exchange activities. Conclusion therefore is that the recommendations concerning students' mobility and cooperation are implemented only partly.

Another recommendation that overlaps between both evaluations was that DU had to improve living conditions in dormitories. In general, the situation is much better as it was more than ten years ago and the recommendation could be considered as implemented. Although, living conditions are better at dormitory in Sporta street 8 than in Parādes street 11 (from meetings during the on-site visit and <https://du.lv/en/dormitories/>) and renovations should take place during the next few years.

DU received two recommendations concerning the library - first, the need of additional books, especially in Latvian was indicated, second - that access to additional scientific databases is required. Library resources in detail are analysed in sections 2.3. and 3.3. of this joint report, but in general both recommendations can be considered as implemented well. Since 2012, the University has renewed and substantially increased the number of books available (SAR, p.109, p.137), as well as provided access to several databases, including most popular ones in natural sciences (EBSCO, Web of Science, ScienceDirect, Scopus) (SAR, p.46-49). Experts in 2012 recommended that access to Thomson Reuters database is needed, but it is not clear why, because it may be more useful for law students. It is undeniable that the library must continue to receive financial support so that the number of books available both in English and Latvian can be continuously increased and updated to provide students with access to the latest and most up-to-date literature in the field.

Conclusions on this set of criteria, by specifying strengths and weaknesses

DU has mostly successfully implemented those recommendations that were possible to carry out; however, it must be noted that more than ten years have passed since they were received, and the situation has changed significantly since then. The university has improved technical conditions by renovating laboratory buildings and dormitories, as well as introducing new books and databases for students. However, the renewal of library resources and the upgrading of rooms in both university buildings and dormitories must be a continuous process. The only recommendation that should be considered as poorly implemented relates to enhancing students' incoming and outgoing mobility. Although various programs and mechanisms are now available, mobility numbers remain low and are even declining. For future, DU should implement a system to monitor the implementation of the

received recommendations and evaluate this process carefully and regularly.

Strengths:

- 1) Library resources (books and database access) have been renewed.
- 2) Conditions in dormitories have improved.

Weaknesses:

- 1) Students' mobility remains low.
- 2) The University does not have a procedure in place to evaluate and follow-up recommendations received during external quality assessment procedures.

Assessment of the requirement [4]

- 1 R4 - Elimination of deficiencies and shortcomings identified in the previous assessment of the study field, if any, or implementation of the recommendations provided.

Assessment of compliance: Partially compliant

DU has successfully implemented some of the recommendations, but lacks a functioning system on how to monitor implementation of recommendations, who is responsible for this process, and how it is monitored.

1.7. Recommendations for the Study Field

Short-term recommendations

- | |
|---|
| 1. Establish a procedure for the evaluation, implementation and regular follow-up of the recommendations received during the external quality assessment procedures, identifying the responsible persons or departments. |
| 2. DU homepage should be redesigned - a more modern look would attract more people, also ways how the information is published and later can be found should be improved by refusing to publish important information in the form of downloadable documents. Improvements are needed to the English version of the website by translating important regulations regarding the study process in DU in English. |
| 3. Clear guidelines on where, when and how the use of artificial intelligence tools is or is not allowed in the study process, should be established. |
| 4. Integrate the verification of learning outcomes through examinations in all subjects by teachers and students who are familiar with them. |
| 5. Increase marketing activities to promote study programmes to attract more students. Use good alumni stories in study programme promotion. |
| 6. Shorten and summarise the quality policy and adopt it as a separate document. |
| 7. Establish an effective PDCA cycle where changes are made at all levels based on the data collected and improvements are introduced at a formal level. |
| 8. Establish a quality system not based on control systems but on an advisory body and development. |
| 9. Constantly monitor the workload of teachers to avoid overload. |
| 10. Promote the mobility of teachers. |

11. Continue to ensure and expand access to relevant literature and scientific foundations.

Long-term recommendations

1. Procedures should be integrated on how daily academic work is monitored by university point of view - how the principles of academic integrity have been met, how learning outcomes are reached and modern student-centred methods integrated in the study process.
2. Develop and expand a motivation system for academic staff to improve mobility and publication rates and promote conference participation.
3. Improve the development plan for the study field, include quantitative indicators, and ensure continuous and systematic monitoring.

II - "Environmental Science" ASSESSMENT

II - "Environmental Science" ASSESSMENT

2.1. Indicators Describing the Study Programme

Analysis

2.1.1. The ABSP "Environmental Science" is an academic bachelor's study programme offered in full-time format in Latvian. Currently, DU is looking to open it in English as well. The study programme goals, tasks, and results (SAR, p. 78-79) align well with the respective study field. Graduates of the ABSP "Environmental Science" are well-prepared (from meetings during the on-site visit and results of the study programme, described in the SAR, p. 79) to enter the labour market and continue their studies at the master's level, either in the PMSP "Environmental Planning" study programme or in other related fields. The theoretical knowledge and practical skills acquired upon graduating from the ABSP "Environmental Science" fully comply with the study field of "Environmental Protection."

2.1.2. The title of the study programme, "Environmental Science," aligns well with the respective study field and accurately reflects its content. The education classification code for the ABSP is 43431, according to the Latvian Classification of Education (Noteikumi par Latvijas izglītības klasifikāciju, <https://likumi.lv/ta/id/291524-noteikumi-par-latvijas-izglitibas-klasifikaciju>). The "4" indicates a higher education level, the following "3" denotes academic education at the bachelor's degree level, and the next "4" represents the thematic group of "Science, mathematics, and information technology." The last two digits classify the study programme within the educational group of "Environmental science and governance." Therefore, the code excellently represents this study programme. Additionally, the degree awarded upon graduation—Bachelor's degree in Environmental Science—along with the study programme's aims, objectives, and learning outcomes, aligns well with both the title and content of the ABSP "Environmental Science." The study programme's duration of three years is optimal and typical for academic bachelor study programmes, allowing students to achieve the aims of the study programme within this timeframe. Admission of students in the study programme takes place in accordance with the "Daugavpils University admission rules for full-time and part-time undergraduate studies" which are annually approved by the DU Senate (SAR, p. 91). ABSP "Environmental Science" is implemented only in one form - as a full-time academic study programme in Latvian, and enrollment requirements are centralised exams in Latvian, first foreign language, mathematics and average value of all CE scores, additional points are awarded for CE in biology, for CE in chemistry, for an exam grade in geography, as well as for winners of the DU Science School certificate (SAR, p. 91). These admission

rules are logical and reasonable as environmental science is a combination of several sciences that potential students study at school. As DU has an intention to implement this study programme in English, admission requirements for the potential students are also presented - a document certifying secondary education and a document certifying knowledge of the English language at least at the B2 level (SAR, p. 91). Unlike the admission requirements for studying in Latvian, these enrollment requirements are much simpler, and DU should be prepared for potential students with a very wide range of basic knowledge in such core subjects as chemistry, mathematics, and biology. As every country has its own educational and examination system for secondary school, it is not possible to set special examination requirements, but DU should consider implementing some sort of entrance exams - that could help to avoid admitting students who lack basic knowledge in subjects necessary for studying in the ABSP "Environmental Science".

The intention to start implementing this study programme in English is a planned and necessary step, initiated by the management of DU. Academic staff and students also understand and support this. Offering the study programme in English would increase the number of students in the respective study field and provide additional financial resources. From this perspective, implementing the study programme in English is reasonable and justified. However, DU currently lacks a clear and well-thought-out strategy to attract potential students and maintain stable enrollment numbers. Additionally, the potential impact on the workload of academic staff has not been assessed. Since DU intends to run two parallel streams of students (English and Latvian), contact hours will at least double. Nevertheless, the internationalisation of the studies is a step that must be supported.

2.1.3. Since the last accreditation, the study programme has undergone major changes due to the development of environmental sciences, requiring its content to be aligned with the latest trends in the field. Employer recommendations have also been taken into account. Many changes have been introduced recently, starting from the academic year 2023/2024, including the introduction of new study courses, restructuring and optimization of the study plan, and updating the content and materials in several study courses. Detailed descriptions of these changes and reasons behind them are summarised in the SAR, p. 81-92. Table No. 3.1.1.1. ABSP "Environmental Science", summary of the proposed changes in the list and scope of the study courses summarises changes introduced in the study courses (SAR, p. 82-87) and in experts' opinion these significant changes are reasonable and logical. The study programme management and academic staff have invested a lot of time and care in making the study programme more up-to-date, adapting the study content to modern trends and current developments in the field. It is to be welcomed that the practical part of several study courses has been increased, and that close attention is paid to interdisciplinary issues and that overlapping of the content between study courses has been prevented. Positive aspect is that feedback and suggestions of students and academic staff have been evaluated and taken into account by introducing suggested changes.

DU describes that the approach to introducing the English language in the curriculum of the study programme has changed several times since the last accreditation (SAR, p. 81-82). However, it should be noted that an optimal solution may still not have been found. During the experts' visit, although the students understood what was being said, they mostly chose to express their views in Latvian. This indicates that English is likely still not taught effectively enough for students to feel comfortable speaking it. Ongoing evaluation and adaptation of the current way of teaching this language will be essential to ensure that students feel comfortable and proficient in using English in their studies.

2.1.4. DU plays an important role as a regional HEI in Latgale region and it is undeniable that university has social responsibility for the region. Environmental science is a strategically needed sector in the whole of Europe, which is confirmed by different laws, guidelines and international

documents such as the European Union's environmental protection guidelines, and European Commission's plan "European Green Deal". The University well understands the strategic importance of ABSP "Environmental Science" and states "Therefore, the investments of the Republic of Latvia in the development and strengthening of the academic bachelor's study programme "Environmental Science" are actually investments in the economy and effective use of the state's financial resources in the future" (SAR, p. 93), which in experts' opinion is actually true and reasonable. More widely the social justification of the study programme is well described in the SAR, p. 92-95. Data presented in the SAR, p. 94., Figure 3.1.3.1., show that the labour demand of specialists in the field of natural sciences, including environmental science, will be 20% higher relative to supply (forecasts of the balance of labour demand and supply, carried out by the Ministry of Economy of the Republic of Latvia until 2030). This analysis, surveys of employers and graduates, carried out by DU (annexes 2.2.4. Analysis of the employer survey and 2.2.4. ABSP Environmental science graduate survey analysis), representatives of employers and graduates during the meetings of experts' on-site visit, also confirmed the continuous need for specialists with knowledge in environmental science. In summary, the implementation of the study programme in Daugavpils University is justified and necessary.

Unfortunately, the dynamics of students is not encouraging and does not represent the needs of the labour market. Figure 3.1.4.1., SAR, p. 96, clearly shows that the number of students enrolled to the study programme has dropped gradually - from 19 applicants in 2016 to seven in 2023, the total number of students in the study programme during the same period has decreased from 44 to 22 (Figure 3.1.4.2.). Undeniably, the demographic situation has impacted the number of students; however, given the strong employment potential for the graduates of this study programme, the reduction should not be so dramatic. Such a low number of students raises questions about the study programme's viability. In the SAR, pp. 96-98, DU analyses the low enrollment numbers, but does not consider other factors beyond the demographic situation and the COVID-19 pandemic. Issues such as the content of the studies, the teaching methods used, and a lack of student-centred learning may also contribute to this decline. Neither in the SAR and also nor during the meetings, experts found evidence that DU in this study field implements a broad range of teaching methods and/or have a system on how to train the academic staff to learn more in the field of student-centred learning. Individual approach by itself does not guarantee it. Also, this cannot be in essence verified by student surveys, because students are not experts in teaching methods and can be satisfied with the current situation due to the fact that they simply don't know that the quality of teaching may be better. Other ways of measuring integration of student-centred learning should have been integrated.

Hopefully, the extensive changes made to the curriculum (SAR, p. 81-92), combined with modern teaching methods and flexible learning options, will make the study programme more attractive to potential students in the future. DU needs to create targeted campaigns to promote and advertise this study programme, using creative approaches. During the onsite visit, the representatives of DU described positive examples from visits to schools in Latgale region, and social media campaigns; these efforts must continue and be further developed. Additionally, specific campaigns should be designed to reach potential students from abroad, as DU currently lacks a curated plan to engage secondary school students in other countries.

2.1.5. Not applicable.

Conclusions on this set of criteria, by specifying strengths and weaknesses

ABSP complies very well with the study field "Environmental Protection". The title of the ABSP "Environmental Science" at DU is well-aligned with its content and thematic focus, accurately reflected in its classification code according to legislation. The study programme's structure,

including its three-year duration, is typical of academic bachelor study programmes and allows students to meet the study programme's objectives effectively. The admission requirements for the Latvian-taught study programme are well-reasoned. As DU plans to offer the study programme in English, the requirements for international students are simpler, focusing on secondary education and B2-level English proficiency. However, DU should consider implementing entrance exams for international applicants to ensure adequate foundational knowledge in core subjects such as chemistry and biology. The decision to offer the study programme in English is strategic, aiming to attract more students and increase financial resources. However, DU lacks a clear strategy for student recruitment and needs to assess the potential impact on staff workload, as offering the study programme in both Latvian and English could double the number of contact hours. Overall, the internationalisation of the study programme is a positive and necessary step, but DU must plan carefully to ensure its sustainability.

Since the last accreditation, the study programme has undergone significant updates to align with the evolving field of environmental sciences, incorporating employer recommendations and student feedback. Recent changes, including the introduction of new study courses, replacing and withdrawing courses with inappropriate content and an emphasis on practical application and interdisciplinary issues, demonstrate the commitment of the study programme management and academic staff to modernise the curriculum. However, despite efforts to integrate English into the curriculum, it appears that an optimal approach has yet to be fully implemented.

DU plays a vital role as a regional higher education institution in Latgale region, particularly in the field of environmental science, which is increasingly important across Europe. The study programme's alignment with national and international environmental goals underscores its significance for both the local economy and labour market. However, the declining student enrollment raises concerns about the study programme's viability, despite the evident demand for specialists in environmental science. While demographic factors and the impact of the COVID-19 pandemic have contributed to this decline, other potential issues related to the study programme content and teaching methods should also be examined. To enhance attractiveness, DU must implement targeted marketing campaigns, including outreach to prospective international students, and continue to develop engaging, student-centred learning experiences.

Strengths:

- 1) The requirements for the Latvian-taught study programme are well-founded, and the simpler requirements for international students promote accessibility.
- 2) Decision to introduce the study programme in English is strategic, aimed at attracting more students and increasing financial resources.
- 3) The study programme management and academic staff have made significant updates in the curriculum of the study programme based on employer recommendations and student feedback, emphasising practical application and interdisciplinary issues.
- 4) DU plays a vital role in the Latgale region, contributing to both local and broader European environmental goals.
- 5) Specialists with knowledge in environmental science are in high demand on the labour market, and the forecasts show that they will continue to be in demand in the future.

Weaknesses:

- 1) Admission requirements for foreign students are very wide.
- 2) The study programme has seen a significant decline in student numbers, raising concerns about its viability despite the demand for specialists.
- 3) Although efforts have been made to incorporate English into the curriculum, an optimal approach has yet to be fully implemented.
- 4) DU lacks a clear strategy for the recruitment of local students, which is critical for sustaining the

enrollment numbers.

5) DU currently lacks a curated plan to attract secondary school students from abroad, limiting its ability to expand its international student base.

2.2. The Content of Studies and Implementation Thereof

Analysis

2.2.1. According to the information provided in SAR, p. 100, mandatory study courses (99 ECTS), limited elective study courses (60 ECTS), and elective study courses (6 ECTS) shall be acquired during the studies in ABSP "Environmental Science," which conform to Cabinet of Ministers Regulations No. 240-13.05.2014. "Regulations on the State Standard of Academic Education". Also, additional requirements concerning basic principles and procedures for evaluating a study programme, amount of ECTS allocated for the development of bachelor's thesis (at least 15 ECTS), amount of contact lessons not less than 40 % were implemented in the study programme.

As given in SAR Annex 3.2.1 (ABSP Environmental Science study plan by semesters.xls x), it can be concluded that limited elective study courses are offered only in semesters 1 and 4, while in other semesters, students do not have the option to choose study courses.

The structure of the study plan is logical, with the acquisition of general knowledge (e.g., "General and inorganic chemistry"; "General ecology"), while students acquire in-depth knowledge in years 2 and 3 (e.g., "Environment and protection of the Baltic Sea region"; "Environmental policy and management"; "Ecotoxicology"), according to SAR, Annex 3.2.1. "ABSP environmental Science study Plan by semesters.xlsx."

It should be noted that the name of the study course "VidZ1047 Labour protection" in the study plan didn't correspond to the name of the study course in the study course description (Annex ABSP_Environmental_science_course_descriptions.zip).

Content changes from 2023 have been proposed in 29 study courses (SAR, p. 82-87); they are related to changes in the volume of credit points (20% of cases) and, in other cases, include interdisciplinary aspects and increased practical activities. Study content updates are continuous, the latest scientific knowledge is included, and the material is adapted for learning in the E-study environment Moodle (SAR, p. 88). The opinion of students (surveys, discussions), the opinion of graduates, and the opinion of employers that conformity with labour market requirements is ensured were taken into account in the improvement of the study programme. Thus, the study programme is topical and labour market needs, including latest scientific information, are in force.

The relevance of the mandatory literature sources included in the study course descriptions to the present day is only partial; for part of the study courses, most compulsory literature is in Latvian (for example, VidZ2004; VidZ1049; Fizi1014). However, as it is planned to offer the study programme also in English, it will not be possible for a non-Latvian-speaking group of students to use books in Latvian. In the case of some study courses, it has been found that the compulsory literature is not too topical, e.g. "Barrett, E.C., Curtis, L.F., 1992. Introduction to Environmental Remote Sensing (4th Edition). Stanley Thornes Ltd, UK, 458 pp." and "Meirovics, I. Organiskā ķīmija. – Rīga: Zvaigzne, 1992. - 525 lpp."; for example, some literature sources are 30-60 years old - "Rutkis, J., 1960. Latvijas ģeogrāfija. Zemgale, Stokholmā".

The study course descriptions (Annex "ABSP_Environmental_science_course_descriptions.zip", VidZ1009; Vidz1010) indicate non-compliance with activities and ECTS. Courses are included in the study plan for 3 ECTS, which corresponds to 32 contact hours, often supplemented by independent work for 48 hours. The descriptions of the two field study courses indicate that the total number of working hours is 112.

2.2.2. Not applicable.

2.2.3. According to SAR, p. 101, the study programme uses student-centred methods of acquiring knowledge, competencies, and skills, with particular reference to a problem-oriented approach. In the SAR, p 101-103, all classical learning methods are mentioned, such as lectures, laboratory work, practical work, seminars, group work, and also individual study work. However, the analysis of study course descriptions (SAR, Annex "ABSP_Environmental_science_course_descriptions.zip") shows that the teaching process is dominated by a teacher-centred method, as there is a marked prevalence of lectures in course descriptions.

Group and individual work (SAR, p. 103) are among the most successful models of student-centred education in implementing the study programme. Students are offered flexible study arrangements. Such methods and approaches are considered a successful solution, and a wider use of them is recommended.

2.2.4. Not applicable.

2.2.5. Not applicable.

2.2.6. According to an additional request for information, DU provided a detailed list of defended Bachelor theses. A total of 44 Bachelor theses were defended during the reporting period (2017-2022). The choice of themes is related to the specialisation of teaching staff, and the relevance of thesis themes to labour market requirements is essential. Quality requirements (minimum number of scientific literature sources used - 20, SAR, p. 107) are set, and the work is also subject to plagiarism control. The average ratings for the final thesis have risen since 2017 to above 8 points (evaluation: very good), SAR, p.108. Between 2017 and 2023, 51 students defended their final thesis. The quality of the final work can be judged according to the evaluation received, and in 70% of the cases, the assessment was higher than 8 points.

In the reporting period (2017-2022), nine academics led the final thesis, corresponding to 36% of the elected academic staff. Notably, the majority (86%) of the final works were supervised by five academics. This shows that the academic staff's involvement in managing the final work needs to be balanced. This is also reflected in the unequal diversity of the final thesis topics. In the study field, environmental protection should ensure equal coverage of different research themes, ensuring equal research.

The topics of the final thesis meet the objectives and tasks of the study programme. The most frequently selected topics related to geological and geomorphological research (e.g. Characteristics of aeolian landforms and sediments in the Augšdaugava spillway valley), hydroecological research (e.g. Assessment of environmental status of Lake Baļotes), environmental management (e.g. Implementation of the environmental management system at the aviation base of the National Armed Forces in Lielvārde) and biodiversity research (e.g. Natural vegetation recovery in clear-cutting sample plots influenced by soil preparation in Aknīstes district).

Conclusions on this set of criteria, by specifying strengths and weaknesses

The structure of the study plan is logical. There are almost no options for choosing between part B courses in the ABSP "Environmental Science" study programme. Inconsistencies have been observed between the study course titles included in the study plan and course descriptions. Lectures are an essential part of the study process; however, they are not the most successful student-centric learning method. The information included in the study course descriptions has been partially updated; however, the list of mandatory literature contains a lot of outdated study sources in Latvian. The supervision of the final thesis needs to be balanced between academic staff.

Strengths:

- 1) High quality (high evaluations) of the final thesis.
- 2) Research directions of the final thesis to labour market requirements is essential.

Weaknesses:

- 1) The content of the study course descriptions is inadequate for English-speaking students to fulfil the conditions for course acquisition.
- 2) Part B (limited elective) study courses are offered, but there are no options or any choice.
- 3) Dominating method of teaching - lectures.

Assessment of the requirement [5] (applicable only to master's or doctoral study programmes)

- 1 R5 - The study programme for obtaining a master's or doctoral degree is based on the achievements and findings of the respective field of science or field of artistic creation.

Assessment of compliance: Not relevant

2.3. Resources and Provision of the Study Programme

Analysis

2.3.1. The study process basically takes place in the DU study buildings at Parades iela 1 and Parades iela 1a (SAR, p. 45).

During the on-site visit, experts had a tour of the facilities, the experts saw by themselves the impressive laboratory facilities available for study and research. It is beneficial for Environmental Science study programme that other related natural sciences (such as biology, and chemistry) are well developed and also the research equipment is available in DU.

However, it was admitted by the personnel that maintenance costs of the equipment in laboratories have no regular source of finances, therefore they should be covered by finances from the projects.

When having lots of specific equipment, it is always important to have skilled and licensed personnel to use them. For example, during the on-site visit, among other equipment, two unmanned aerial vehicles (drones) were presented. According to Regulation (EU) 2018/1139 of the European Parliament and of the Council of 4 July 2018 on common rules in the field of civil aviation, operating all drones over 250 grams need flying permit/licence. According to the information obtained during the on-site visit, two members of teaching staff have this licence.

Regarding the licences of specific computer programs used by students such as geographic information systems (GIS), it was clarified during the on-site visit that students can use remote desktop options, which provides easy access.

During the experts' meeting with graduates it was admitted that the studies in DU have given very good background, including practical competences, knowledge and skills to use specific equipment. The graduates also mentioned that field trips helped to improve planning, organisational and other useful soft skills.

Another strength of HEI is the accessibility for people with disabilities as DU has modernised its premises and buildings for people with disabilities, including the visually impaired people. Experts' group during the visit had several rides with minibuses organised by DU and it was noted that all of them were equipped to carry wheelchair users. Also in the library it was noted that there is available special book-reading equipment for the visually impaired. Latvian Association of Disabled People and their Friends "APEIRONS" also have recognised these efforts in 2016, DU was awarded a prize in the nomination "Education for All" (SAR, p. 57-58).

Opening hours of the library since the last assessment period have increased due to the relevant

recommendations. To make the exchange of borrowed books more convenient, outside the building there is a drop-box to leave books if delivered outside working hours, also within the library there is self-service system "Bibliotheca".

Currently, the number of books in English in this field (environmental science, its sub-branches, geomatics, Earth sciences and communication sciences) is quite limited (SAR, p. 47). During the experts' visit, asked if DU plans to increase the number of books in English in the library, it was answered that they plan to move more to eBooks (some databases such as EBSCO has eBooks included as well) and free-licence electronic study materials. If there is a lack of some study material the teaching staff can prepare the list of books needed. Afterwards the list is being considered by the Budget Commission of DU.

According to SAR, p. 47, students through the library have access to 10 scientific databases - 5 of them in Latvian and 5 in English.

In the library, the final thesis of the graduates, as well as summaries of the thesis are available. Also during the expert visit it was noted that two printers/scanners are available in the library.

During the on-site visit, the DU e-learning website Moodle, which provides descriptions of study courses, necessary study materials, links to certain information for the study course, colloquia and exams, was demonstrated to the experts. Inter alia, it was mentioned that video lectures could not be uploaded in the system because it exceeds maximum file size, so other file sharing platforms are used for that, which could arise an issue of data security and unauthorised access.

The overall impression that the experts team had of the teaching staff involved in the study programme is that they are very enthusiastic, but overworked and additional responsibilities put them at risk of burnout.

Some members of the teaching staff during the meeting with experts even admitted that they have around 1000 contact hours per year and characterised working regime as "hard working days and nights", another admitted that due to intensive work with students the only time when scientific research could be done, is summertime, when students are on vacation. Most of the staff teach various study courses and also have parallel duties in other institutions. Also it was mentioned by teaching staff that students can easily contact them in many ways, including communication through WhatsApp. In this regard the management's overall attitude should make teaching staff understand that their privacy and time are valuable and that they are not expected by management to be available 24/7, so each lecturer is free to decide whether to give his/her own private phone number to students and to impose conditions on usage of that.

As teaching staff are already overloaded, one of the weaknesses in SAR is indicated as follows: "The inadequately high academic load of lecturers reduces the opportunities to work on methodical issues and greatly complicates scientific-research activity" (SAR, table 2.1.2.1. "SWOT analysis of the study field "Environmental protection", p. 19), the risk of burnout increases, especially with the upcoming launch of the study programmes in English (SAR, p. 90). Probably the costs of launching the study programme in English are not assessed properly, in SAR, p. 110, it is stated that the costs per student in the study programme in Latvian and in the English study programme shall not differ.

In spite of additional English courses available for teaching staff (during experts visit it was confirmed that teaching staff can join English classes to improve their language skills), their experience with Erasmus+ students and assessment from their point of view that students would be ready to have study courses in English, some students during experts meetings even admitted that if the studies are going to be available only in English, they would reconsider continuing studies at DU. Regarding the readiness to have study programmes in English, it should be noted that while having meetings with experts, students chose to have an interpreter as the working language of the meeting was English. Also in SWOT analysis among others it's indicated that part of the academic staff has insufficient knowledge of foreign languages, and some of the students have insufficient knowledge of foreign languages (SAR, p. 19).

During the expert meeting, it was admitted that students starting studies in ABSP "Environmental

Science” tend to not be sure what they want to study and achieve in life, most of them are not passionate about the study field chosen, therefore the drop-out level is high.

Also during the meeting in experts’ visit, it was revealed that only about 40 % of student surveys are fulfilled. There are several types of surveys, including surveys organised by the study council, also some of the teaching staff ask to fulfil small questionnaires regarding only the study course.

Students during the meeting admitted that with a Swedbank ISIC card many discounts are available to attend cultural events in museums, or theatre. Also representatives from the student council confirmed that conditions in the dormitory have improved (including heating issues) compared to the last reporting period, complaints have been collected, identified. There are also discounts available for different groups, e.g., large families, for people in need.

2.3.2. Not applicable

2.3.3. The cost calculation for one student in the programmes of the study field is made at the Department of Finance and Accounting of DU (SAR, p. 43).

The costs of the ABSP "Environmental science" consist of: salary fund - 62.4 %, employer SSIMC - 14.7%, costs of business trips and business trips - 1.5%, services - 6.7%, costs of materials, energy resources, water - 5.4%, cost of purchasing books and magazines - 0.5%, equipment purchase and investment costs - 3.9%, for student social security - 4.8% (SAR, p. 110).

According to table 3.3.3.1. “ABSP "Environmental science" costs per 1 student” (SAR, p. 110) costs per one student in ABSP "Environmental science" are 3465 EUR/year (10396.80 EUR for 3 years). The study fee for ABSP "Environmental Science" is set in the following amount – 1600 EUR/year (4800 EUR in total). So the fee paid by students or the state funding is only a half of expenses indicated in the table 3.3.3.1. It was explained by DU that as ABSP “Environmental protection” is one of the priority study fields (STEM field) and specialists in this profession are in high demand on the labour market, the difference between the tuition fees and the actual costs is covered from the DU budget (DU submitted answers after the visit). In SAR (p. 110) it is stated that the costs per student in ABSP "Environmental science" in the Latvian and in the English programme shall not differ. The expert team disagrees that there will be no additional costs in launching an English version of the study programme. When asked about considerations regarding this, DU replied: “All necessary teaching materials, which are necessary for studying in English, are provided as books, e-books, e-journals and many subscribed electronic databases of scientific periodicals and publications subscribed by the DU library. Moreover, students have access to the scientific libraries of DU laboratories with more than 50 regularly supplemented foreign scientific journals” (DU submitted answers after the visit). However, in the opinion of experts, materials needed for learning at the university cannot be reduced to available electronic books. At least in the initial phase, adequate resources need to be allocated to launch the study programme in English. The experts consider that the development of training materials in English for lecturers is a time-consuming and resource-intensive process, which probably so far have not been considered properly by DU and therefore should be reviewed.

In ABSP "Environmental science" the minimum number of students in a group to ensure the profitability of the study programme is 9 students (SAR, p. 110). However, according to annex 3.1.4. “Statistics on students Environmental protection.xlsx” in academic year 2022/2023 2nd course had 6 students, in year 2023/2024 1st course had 8 students, 2nd course - 5 students.

When asked to explain how the finances are restructured in these cases, when the number of students in the group does not reach the number required for the study programme to be profitable, DU answered that such a situation arises due to dropout and academic leave. Despite this, every student is important to DU, especially in this field, and therefore in such cases DU provides funding (DU submitted answers after the visit).

Conclusions on this set of criteria, by specifying strengths and weaknesses

The study provision is sufficient for the implementation of the ABSP "Environmental science". The methodological and informative resources are accessible to students and are sufficient. The expenses are planned per each student. However, the number of students in certain semesters does not exceed the minimum numbers to ensure the profitability of the study programme. The finances cannot be considered balanced as the study programme cannot be operated in a cost-effective way on its own as additional financial support is needed from the DU budget. The expert team disagrees that there will be no additional costs in launching an English version of the study programme.

Strengths:

- 1) Impressive laboratory facilities available for study and research.
- 2) Enthusiastic teaching staff involved in the study programme.
- 3) The accessibility of premises and buildings made it easier for the people with disabilities.
- 4) Other related natural sciences are well developed and so is the research equipment available in DU.
- 5) Individual and personal approach to students.

Weaknesses:

- 1) Teaching staff is overworked and additional responsibilities put them at risk of burnout.
- 2) Little number of students, and the drop-out rate is high.
- 3) Currently, the number of books in English in this field is quite limited.
- 4) Maintenance costs of the equipment in laboratories have no regular source of finances.
- 5) Low rate of fulfilled students' surveys.
- 6) Probably the costs of launching the study programme in English are not assessed properly.
- 7) The finances cannot be considered balanced as the study programme cannot be operated in a cost-effective way on its own.

Assessment of the requirement [6]

- 1 R6 - Compliance of the study provision, science provision (if applicable), informative provision (including library), material and technical provision and financial provision with the conditions for the implementation of the study programme and ensuring the achievement of learning outcomes

Assessment of compliance: Partially compliant

The finances cannot be considered balanced as the study programme cannot be operated in a cost-effective way on its own.

2.4. Teaching Staff

Analysis

2.4.1. While the qualifications of the teaching staff at DU generally meet the regulatory requirements, the onsite meeting and review of CVs revealed some gaps (Mandatory annexes, CVs-EN.zip). Not all faculty members possess the optimal combination of academic qualifications and professional experience necessary for achieving the full range of learning outcomes in ABSP Environmental Science. This suggests that the qualifications are only partially aligned with the study programme's goals. Based on the information provided in the Annexes 2.3.7. "Basic information about the teaching staff involved in the implementation of the study field" and the feedback from the onsite meeting with teaching staff, it is evident that while the qualification of the teaching staff

members generally complies with the requirements for the implementation of the study programme, there are significant concerns that affect the achievement of the aims and learning outcomes of the study programme.

The staff members are overloaded with didactic responsibilities, leaving them with limited time to engage in research activities. This impacts their ability to fulfill both their teaching and research obligations effectively, which is essential for the overall quality of the study programme. Moreover, not all staff members possess sufficient English language skills, which is crucial for fostering international collaboration and for students who require a global academic perspective.

These issues suggest that, while the qualifications are formally adequate, there are practical challenges that hinder the staff's ability to meet the full academic and research expectations, which may affect the long-term sustainability and success of the study field.

2.4.2. DU has implemented structured measures to ensure that changes in the teaching staff do not negatively impact the quality or regulatory compliance of the study programmes. Since the last accreditation, the teaching staff composition has undergone some adjustments, primarily due to the integration or removal of certain study courses. Currently, 29 lecturers deliver the study programme, with 72.4% holding doctoral degrees, highlighting the high qualifications of the academic staff (SAR, p. 114).

The university also promotes the involvement of young specialists to refresh the academic team and ensure continued excellence. When changes occur—whether due to staff departures, retirements, or feedback from student surveys—the study direction council carefully evaluates the new candidates' qualifications and expertise to maintain or improve the quality of the study process. This process ensures that any staffing changes are managed effectively, preserving both the integrity and quality of the study programmes offered.

2.4.3. Not applicable

2.4.4. The overall assessment of the entire group of teachers indicates that they meet the expectations of Criterion 2.4.4. Most faculty members are actively engaged in academic research, with numerous publications in recognized peer-reviewed journals, including international platforms like SCOPUS. The range of research spans various fields, from natural sciences and environmental studies to linguistics and law, demonstrating a broad spectrum of scholarly activity.

In addition to their publication records, several staff members contribute through practical experience in their fields. This combination of research and hands-on experience ensures a comprehensive and applied approach to teaching. Many of the faculty also participate in international conferences, promoting their work on a global stage and fostering academic collaboration.

The faculty shows a strong culture of joint research, both within the university and with other institutions, enhancing the integration of research into their teaching. This balance between scholarly output and academic responsibilities ensures that students benefit from current knowledge and research-led instruction.

In conclusion, the group of teachers collectively fulfills the requirements of Criterion 2.4.4, with significant contributions to both academic research and practical experience, supporting the quality and effectiveness of the study programme.

2.4.5. At DU, a detailed and structured mechanism for cooperation among the teaching staff ensures the effective implementation of the "Environmental Science" study programme and the interconnection of its study courses. This cooperation covers various areas, including the organization and management of the learning process, adjustments to study course content, scientific event planning, and research collaborations (e.g., joint research projects, writing

publications, and participation in scientific conferences).

During the creation of the study programme, the mutual cooperation of the teaching staff was carefully planned. Study courses are grouped by year to build progressively on knowledge acquired in previous years. This ensures that the learning outcomes of each course are aligned with the overall goals of the study programme. Teaching staff collaborate to thematically link study courses within each year, ensuring a cohesive learning experience for students. Additionally, teaching staff familiarize themselves with the content and delivery methods of other study courses in the study programme to prevent duplication and identify areas where knowledge gaps might exist.

Regular meetings and discussions among the lecturers play a vital role in maintaining the study programme's integrity. Points of connection between study courses are continuously explored, reinforcing students' understanding of how various aspects of environmental science, its sub-fields, and related disciplines are interrelated. This system ensures that each study course not only complements the others but also strengthens the students' ability to apply their knowledge holistically.

At the end of each academic year, teaching staff evaluations are conducted via questionnaires, and results are discussed in meetings. This reflection helps ensure that study courses meet the expected learning outcomes, and it fosters an exchange of experiences among the lecturers, promoting ongoing collaboration. Important discussions also focus on whether the evaluation criteria of individual courses align with the overarching learning goals of the entire study programme.

Additionally, discussions are held to assess how systemicity—the core principle of the study programme's structure—can be preserved and improved. These discussions occur in both group and individual settings, where lecturers explore potential improvements in the organizational forms of the study process to encourage student growth.

In terms of administrative planning, the academic staff workloads for the following year are organized at the end of each academic year within the relevant structural units. This planning considers the results of student evaluations of specific study courses and the self-analysis conducted by lecturers on their academic activity. The suitability of the teaching staff for each study course is reassessed, and academic workloads are approved according to the "Procedures for recording the workload of academic staff at the DU."

For the 2023/2024 academic year, a total of 29 teaching staff are involved in delivering the bachelor's study programme "Environmental Science," with 23 dedicated to core courses (parts A and B). At the time of the report submission, 22 students were enrolled in the study programme. With the recalculated full-time equivalent (FTE) workload of lecturers, the ratio of teaching staff to students in the study programme stands at one FTE teaching staff member for every 1.9 students. This favorable ratio allows for individualized attention and effective interaction between students and lecturers, ensuring that the study programme's goals are met through close collaboration and student-centered learning (SAR, p. 115).

Conclusions on this set of criteria, by indicating strengths and weaknesses

DU has made efforts to meet regulatory standards in terms of teaching staff qualifications and collaboration mechanisms, which contribute to the delivery of the Environmental Science study programme. However, there are significant weaknesses that limit the study programme's overall effectiveness. Inconsistent qualifications among some teaching staff members, disruptions caused by staff changes, and uneven research output hinder the study programme's ability to fully achieve its learning outcomes. Additionally, while collaboration mechanisms exist, their effectiveness is compromised by heavy workloads and staff transitions. Addressing these weaknesses is critical to improving the continuity, research integration, and overall quality of the study programme.

Strengths:

- 1) The teaching staff at DU meet the required qualifications, supporting the Environmental Science study programme.
- 2) DU has established mechanisms for staff collaboration, including regular meetings, to promote study course integration and achieve study programme objectives.
- 3) Some faculty members actively contribute to research and peer-reviewed publications, enhancing the study programme's academic rigor.

Weaknesses:

- 1) Some faculty lack up-to-date expertise, limiting learning outcomes.
- 2) Heavy teaching loads hinder consistent research activity and curriculum updates.
- 3) Staff cooperation mechanisms are not fully effective, affecting study course cohesion during transitions or high workloads.

Assessment of the requirement [7]

- 1 R7 - Compliance of the qualification of the academic staff and visiting professors, visiting associate professors, visiting docents, visiting lecturers and visiting assistants with the conditions for the implementation of the study programme and the requirements set out in the respective regulatory enactments.

Assessment of compliance: Partially compliant

While most teaching staff meet regulatory requirements, inconsistencies exist in qualifications, with some lacking up-to-date expertise in advanced topics. The expert evaluation assesses not only regulatory compliance but also the quality and up-to-date expertise of the staff in the context of modern academic developments. The overall assessment of the qualifications of lecturers is an informed judgment based on all available evidence and is in line with international standards.

2.5. Assessment of the Compliance

Requirements

- 1 1 - The study programme complies with the State Academic Education Standard or the Professional Higher Education Standard

Assessment of compliance: Partially compliant

According to the State Academic Education Standard, point 8 – Study programme should include mandatory study courses not less than 60 ECTS, limited elective study courses not less than 30 ECTS. Following the information included in the study plan, DU emphasises that limited elective part holds 60 ECTS, however, the actual choice to select is possible only in the 1st and 4th semesters comprising 21 ECTS which is less than it is set in the state standard. It is mandatory to ensure that the limited elective courses are available in the amount set in the relevant standard.

- 2 2 - The study programme complies with a valid professional standard or the requirements for the professional qualification (if there is no professional standard required for the relevant occupation) provided if the completion of the study programme leads to a professional qualification (if applicable)

Assessment of compliance: Not relevant

- 3 3 - The descriptions of the study courses and the study materials have been prepared in all languages in which the study programme is implemented, and they comply with the requirements set forth in Section 561 , Paragraph two and Section 562 , Paragraph two of the Law on Higher Education Institutions.

Assessment of compliance: Fully compliant

Course descriptions "ABSP_Vides_zinatne_kursu_apraksti_LV.zip" are available in both Latvian and English, the programme is implemented only in Latvian. All study course descriptions contain the requirements set forth in the corresponding sections of the Law on Higher Education Institutions. Some weaknesses have been identified in the previous chapters of this report, however this does not change the compliance to the normatives.

- 4 4 - The sample of the diploma to be issued for the acquisition of the study programme complies with the procedure according to which state recognised documents of higher education are issued.

Assessment of compliance: Fully compliant

The provided Diploma sample annex "3.1.2. ABSP Environmental science diploma and supplement example.zip" complies with the procedure by which state-recognised documents of higher education are issued in accordance with Cabinet Regulation No. 202 "Kārtība, kādā izsniedz valsts atzītus augstāko izglītību apliecinošus dokumentus".

- 5 5 - The academic staff of the academic study programme complies with the requirements set forth in Section 55, Paragraph one, Clause 3 of the Law on Higher Education Institutions.

Assessment of compliance: Fully compliant

DU fulfils needed requirement, see annex "Statement_Article 55_ABSP Environmental science.docx".

- 6 6 - Academic study programmes provided for less than 250 full-time students may be implemented and less than five professors and associated professors of the higher education institution may be involved in the implementation of the mandatory and limited elective part of these study programmes provided that the relevant opinion of the Council for Higher Education has been received in accordance with Section 55, Paragraph two of the Law on Higher Education Institutions.

Assessment of compliance: Not relevant

- 7 7 - At least five teaching staff members with a doctoral degree are among the academic staff of an academic doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field of science. At least five teaching staff members with a doctoral degree are among the academic staff of a professional doctoral study programme in arts (if applicable).

Assessment of compliance: Not relevant

- 8 8 - The teaching staff members involved in the implementation of the study programme are proficient in the official language in accordance with the regulations on the level of the official language knowledge and the procedures for testing official language proficiency for performing professional duties and office duties.

Assessment of compliance: Fully compliant

Attached resumes of staff ("CV_EN.zip") verifies that state language proficiency is compliant with Cabinet Regulation No. 733 "Noteikumi par valsts valodas zināšanu apjomu, valsts valodas prasmes pārbaudes kārtību un valsts nodevu par valsts valodas prasmes pārbaudi".

- 9 9 - The teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language, if the study programme or any part thereof is to be implemented in a foreign language (if applicable).

Assessment of compliance: Fully compliant

Applicable since the programme has been applied for accreditation also in English.
According to attached resumes of staff ("CV_EN.zip") every member of teaching staff in programme ABSP "Environmental science" has at least B2 level in English.

- 10 10 - The sample of the study agreement complies with the mandatory provisions to be included in the study agreement.

Assessment of compliance: Fully compliant

Sample of attached study agreement ("2.1.4_Agreement_on_studies.docx" and "2.1.4_Studiju_līguma_paraugs.docx") complies with Cabinet Regulation No. 70 "Studiju līgumā obligāti ietveramie noteikumi".

- 11 11 - The higher education institution / college has provided confirmation that students will be provided with opportunities to continue their education in another study programme or another higher education institution or college (agreement with another accredited higher education institution or college) if the implementation of the study programme is terminated.

Assessment of compliance: Fully compliant

Attached contract ("Agreement between DU and LU_Environmental protection.docx") confirms that the institution provides the possibility to continue studies in the academic bachelor study program Environmental Science (43431) in University of Latvia.

- 12 12 - The higher education institution / college has provided confirmation that students are guaranteed compensation for losses if the study programme is not accredited or the study programme's license is revoked due to the actions (actions or omissions) of the higher education institution or college and the student does not wish to continue studies in another study programme.

Assessment of compliance: Fully compliant

DU confirmation (annex "CONFIRMATION_Compensation guarantee for students.docx") states, that students are guaranteed compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the university (actions or failure to act) and the student does not wish to continue the studies in another study programme.

- 13 13 - The joint study programmes comply with the requirements prescribed in Section 55.(1), Paragraphs one, two, and seven of the Law on Higher Education Institutions (if applicable)

Assessment of compliance: Not relevant

- 14 14 - Compliance with the requirements specified in other regulatory enactments that apply to the study programme being assessed (if applicable)

Assessment of compliance: Not relevant

Assessment of the requirement [8]

- 1 R8 - Compliance of the study programme with the requirements set forth in the Law on Higher Education Institutions and other regulatory enactments.

Assessment of compliance: Partially compliant

ABSP Environmental Science comply with the national education standard according to the structural requirements mentioned in the Cabinet Regulation No. 240 "Noteikumi par valsts akadēmiskās izglītības standartu". However, requirements concerning the limited elective study courses were reached only in two semesters.

General conclusions about the study programme, indicating the most important strengths and weaknesses of the study programme

ABSP complies very well with the study field “Environmental Protection”. The study programme's structure, including its three-year duration, is typical of academic bachelor study programmes and allows students to meet the study programme's objectives effectively. The study programme's alignment with national and international environmental goals underscores its significance for both the local economy and labour market. The admission requirements for the Latvian-taught study programme are well-reasoned. However, the declining student enrollment raises concerns about the study programme's viability, despite the evident demand for specialists in environmental science.

As DU plans to offer the study programme in English, the requirements for international students are simple, focusing on secondary education and B2-level English proficiency. The decision to offer the study programme in English is strategic, aiming to attract more students and increase financial resources. To enhance attractiveness, DU must implement targeted marketing campaigns, including outreach to prospective international students, and continue to develop engaging, student-centred learning experiences. However, DU lacks a clear strategy for student recruitment and needs to assess the potential impact on staff workload, as offering the study programme in both Latvian and English could double the number of contact hours. Overall, the internationalisation of the study programme is a positive and necessary step, but DU must plan carefully to ensure its sustainability. Since the last accreditation, the study programme has undergone significant updates to align with the evolving field of environmental sciences, incorporating employer recommendations and student feedback. Recent changes, including the introduction of new study courses, replacing and withdrawing study courses with inappropriate content and an emphasis on practical application and interdisciplinary issues, demonstrate the commitment of the study programme management and academic staff to modernise the curriculum.

The methodological and informational resources are accessible and adequate for students, with expenses planned per student. However, the number of students in certain semesters does not meet the minimum required for the study programme to be profitable. The finances are not balanced, as the study programme cannot operate cost-effectively on its own and requires additional financial support from the DU budget. The expert team disagrees with the claim that launching an English version of the program will incur no additional costs.

The structure and content of the study plan are logical. Nevertheless, some shortcomings were identified, e.g., there are almost no options for choosing between part B (limited elective) study courses, and some inconsistencies have been observed between the study course descriptions and study plan. Also, study course descriptions were partly updated, and there is dominant mandatory literature only in Latvian, raising hypothetical problems for English-speaking students. According to the information included in the study course descriptions, the most used teaching method is lectures, but more successful student-centric learning methods exist. Also, the supervision of the final thesis needs to be balanced between academic staff.

DU has made efforts to meet regulatory standards in terms of teaching staff qualifications and collaboration mechanisms, which contribute to the delivery of the Environmental Science study programme. However, there are significant weaknesses that limit the study programme's overall effectiveness. Inconsistent qualifications among some staff, disruptions caused by staff changes, and uneven research output hinder the study programme's ability to fully achieve its learning outcomes. Additionally, while collaboration mechanisms exist, their effectiveness is compromised by heavy workloads and staff transitions.

Strengths:

1) The admission requirements for the Latvian-taught study programme are well-founded, and the simpler requirements for international students promote accessibility.

- 2) Decision to introduce the study programme in English is strategic, aimed at attracting more students and increasing financial resources.
- 3) The study programme management and academic staff have made significant updates in the curriculum of the study programme based on employer recommendations and student feedback, emphasising practical application and interdisciplinary issues.
- 4) DU plays a vital role in Latgale region, contributing to both local and broader European environmental goals.
- 5) Specialists with knowledge in environmental science are in high demand on the labour market, and the forecasts show that they will continue to be in demand in the future.
- 6) Impressive laboratory facilities for study and research.
- 7) Enthusiastic teaching staff involved in the study programme.
- 8) Accessible premises and buildings for people with disabilities.
- 9) High quality (high evaluations) of final thesis.
- 10) Research directions of final thesis to labour market requirements is essential.
- 11) DU meets regulatory standards for teaching staff qualifications.
- 12) Collaboration mechanisms are in place to support study course delivery and integration.

Weaknesses:

- 1) Admission requirements for foreign students are very wide.
- 2) The study programme has seen a significant decline in student numbers, raising concerns about its viability despite the demand for specialists.
- 3) Although efforts have been made to incorporate English into the curriculum, an optimal approach has yet to be fully implemented.
- 4) DU lacks a clear strategy for the recruitment of local students, which is critical for sustaining the enrollment numbers.
- 5) DU currently lacks a curated plan to attract secondary school students from abroad, limiting its ability to expand its international student base.
- 6) Overworked teaching staff with additional responsibilities, increasing the risk of burnout.
- 7) Low student numbers and high drop-out rate.
- 8) Potentially underestimated costs of launching the study programme in English.
- 9) Finances are not balanced, as the study programme cannot operate cost-effectively on its own.
- 10) The content of the study course descriptions is inadequate for English-speaking students to fulfil the conditions for course acquisition.
- 11) Part B (limited elective) study courses are offered, but there are no options or any choice.
- 12) Dominating method of teaching - lectures.
- 13) Inconsistent qualifications among staff hinder the achievement of learning outcomes.
- 14) Staff changes cause disruptions in study course continuity.
- 15) Uneven research output limits the integration of the latest developments into the curriculum.
- 16) Collaboration mechanisms are less effective due to heavy workloads and frequent staff transitions.

Evaluation of the study programme "Environmental Science"

Evaluation of the study programme:

Average

2.6. Recommendations for the Study Programme "Environmental Science"

Short-term recommendations

1. For uploading video lectures outside the electronic learning environment (e.g. Moodle), data security and restricted access to learning materials must be observed to prevent unauthorised access.
2. As students can easily contact teaching staff in person, e.g., through WhatsApp, the private life of teaching staff should be respected, giving appropriate instructions to students for using such a channel of communication.
3. As feedback from students is critical, in order to increase the rates of fulfilled surveys, the respondents should get feedback, what problems were identified through these questionnaires and how they are going to be solved.
4. Regarding launching both study programmes in English, the risk assessment should be made before, taking into account that teaching staff already are overloaded and due to lack of financial support have additional responsibilities.
5. With plans to develop the study programmes in English, the library needs to increase the number of English-language materials (the books in environmental science, its sub-branches, geomatics, Earth sciences) and allocate resources for their development.
6. DU should set aside financial resources each year to cover the costs of maintenance and repair of scientific equipment. If available resources are very limited, a long-term plan can be developed, with funding for individual laboratories that changes each year.
7. Conduct a thorough analysis of the factors contributing to the significant decline in student numbers and implement targeted strategies to enhance recruitment and retention, ensuring the study programme's viability.
8. Optimise English (as a study course) integration - evaluate and refine the approach to incorporating English into the curriculum, ensuring that it meets the needs of all students and promotes their comfort and proficiency in using the language.
9. Create a clear and comprehensive strategy for recruiting local students, focusing on outreach and engagement to sustain and increase enrollment numbers.
10. Develop a curated plan to attract secondary school students from abroad, utilising creative marketing strategies and partnerships with international institutions to expand DU's international student base.
11. The content of study courses must be updated to prevent the inclusion of obsolete literature. The list of compulsory literature should be carefully considered so that English-speaking students can also use it.
12. Address staff qualifications by providing targeted training to update knowledge in emerging environmental topics.
13. Reduce disruptions from staff transitions by developing a pool of qualified teaching staff for quick replacements.
14. Enhance collaboration mechanisms by scheduling regular, structured faculty meetings to ensure course integration and reduce content gaps.
15. Substantially improve study materials, and study environment in order to ensure equal study opportunities for students studying in Latvian and English if the studies in English are offered. Otherwise, the study programme shall be offered only in Latvian.

16. Ensure consistent quality in the delivery of the study programme taught in English, taking into account all relevant factors: pedagogical approach, assessment, students' rights, and support from technical services.
17. Ensure that parts included in the study plan are in line with the state standard, especially the limited elective (part B) study courses.

Long-term recommendations

1. Regarding the relatively high drop-out rate, some mechanisms should be put in place to encourage students' ability to switch to related study programmes within DU (e.g., biology, chemistry).
2. Extend the number of study courses offered in Part B in the study plan.
3. To provide academic staff with training in the acquisition and practical implementation of student-centred methods in the course of training to integrate into study courses.
4. Hire additional staff to alleviate heavy teaching workloads and enable greater research engagement.
5. Establish stronger support systems for continuous professional development to ensure the teaching staff stays up-to-date with the latest advancements.
6. Develop a strategy to retain high-performing faculty members to prevent frequent disruptions in the study programme's delivery.

II - "Environmental Planning" ASSESSMENT

II - "Environmental Planning" ASSESSMENT

2.1. Indicators Describing the Study Programme

Analysis

2.1.1. The PMSP "Environmental Planning" is a professional master's study programme offered in full-time format in Latvian, currently DU is looking forward to opening in English as well. The study programme's goals, tasks, and results (SAR, p. 118-119) align well with the respective study field. Graduates of the PMSP "Environmental Planning" are well-prepared to enter the labour market and continue their studies at the doctoral level. The theoretical knowledge, practical skills and professional experience gained through internships acquired upon graduating from the study programme, fully comply with the study field of "Environmental Protection."

2.1.2. The title of the study programme, "Environmental Planning," aligns well with the respective field and reflects its content. The education classification code for the PMSP is 47431, according to the Latvian Classification of Education (Noteikumi par Latvijas izglītības klasifikāciju, <https://likumi.lv/ta/id/291524-noteikumi-par-latvijas-izglitibas-klasifikaciju>). The "4" indicates a higher education level, the following "7" denotes professional education at the master's degree level, and the next "4" represents the thematic group of "Science, mathematics, and information technology." The last two digits classify the study programme within the educational group of "Environmental science and governance." Therefore, the code represents this study programme very well, detailed description may be found in the SAR, p. 123. Additionally, the degree obtained upon graduation—Professional Master's Degree in Environmental Planning with a professional

qualification “Environmental Management Specialist”—along with the study programme’s aims, objectives, and learning outcomes, aligns well with both the title and content of the study programme. The study programme contains an extensive internship (practice) that is divided in two separate blocks with identical credit-point amounts (12 CP/18 ECTS). First one (“Environmental management I”) is organised in local governments, which have a specialist or a department related to environmental planning and management, in the activity of the regional environmental administrations of the State Environmental Service in the field of environmental management; second one - (“Environmental management II”) in private companies, institutions operating in the field of environmental technology and management (SAR, p. 134). Largely, these internships, but also the content of the studies interconnect very well with the professional qualification “Environmental Management Specialist”, code PS0268 (https://www.niid.lv/files/prof_standartu_registrs/Vides_parvaldibas_specialists.pdf), obtained after graduation. As DU states in the SAR, p. 123 and mentioned also during experts’ on-site visit, this professional standard is outdated, approved in 2004. During the on-site visit, representatives of DU mentioned that the process of updating the standard has started, but it is long-term and it is impossible to predict when it will end, but DU is following this process closely. After the standard is renewed, DU is ready to implement the needed changes in the content of the studies to follow it.

The length and credit points of this professional master’s study programme are typical in Latvia and appropriate for students to achieve its learning outcomes. Since a significant proportion of students are working while studying, they would likely appreciate a shorter study programme duration. However, this is not possible for a master’s study programme which admits students with an academic bachelor degree. Despite the challenges posed by students balancing work and studies, the study programme’s full-time format, with classes primarily on weekends, is a practical solution. Admission requirements are reasonable - first-cycle higher education (or equivalent higher education) in environmental science, natural sciences, engineering, agricultural sciences or forestry or first-cycle higher education in comparable thematic areas of education, if the applicant has at least 2 years of work experience in the field of environmental management, as evidenced by a certificate from the workplace, or the employer has determined the need to obtain a qualification in the field of environmental management in order to fulfil the duties of the position (SAR p. 120). Positive aspect is that there is a clear procedure on how students’ previous experience may be evaluated and taken into account while enrolling in the study programme. Form of implementation (full time-studies) is reasonable, though it should be noted that classes are scheduled mostly on Fridays and Saturdays, to accommodate the fact that most students are working.

Similar to the ABSP “Environmental Science”, DU plans to implement this study programme in English, and the considerations, risks, and potential challenges are very similar to those analysed in section 2.1.2. The difference is that the admission requirements for master’s study programmes are nearly the same for local and international students, with the additional requirement of English language proficiency at a minimum B2 level. However, the university should clarify that this proficiency must be confirmed by an international, standardised certificate, such as TOEFL or IELTS.

2.1.3. The changes introduced in the PMSP “Environmental Planning” are not described in as much detail as those for the ABSP “Environmental Science,” but they are summarised in the SAR, p. 121-122. DU states that study materials and the content of the study courses have been updated, and more modern technologies and research methodologies have been implemented. However, a detailed description of these changes, including specific study courses, is not available. Although the general characterization of introduced changes is positive, it is not possible to fully assess this criterion due to this lack of detail. It is crucial for DU to provide more comprehensive information about these modifications to ensure clarity and transparency. Also, it is important to note that the content of the study programme is expected to undergo significant changes in the near future, as the standard for the professional qualification “Environmental Management Specialist” is set to

change soon.

2.1.4. In general, economic and social justification of this study programme is largely similar as for the AMSP “Environmental Science” and described in 2.1.4., but with some alterations. Graduates from PMSP “Environmental Planning” are more skilled and have gained more practical knowledge due to the internships. Analysed surveys from employers and graduates (annexes 2.2.4. Analysis of the employer survey and 2.2.4. PMSP Environmental planning graduate survey analysis) show that they are generally satisfied with the study programme and value the knowledge obtained during studies.

Similar as for the academic bachelor’s study programme, student numbers in the PMSP “Environmental Planning” are low (SAR, p. 125-126). “Figure 3.1.4.1. The number of students enrolled in the study program” indicates that enrollment numbers are relatively stable, but “Figure 3.1.4.2. Total number of students in the study program” shows a significant drop-out rate, leading to a gradual decrease in the total number of students. DU states that the main reason for students dropping out of the “Environmental Planning” study programme is that they begin working and cannot balance their jobs with their studies. While other possible reasons are mentioned, they are not analysed in detail, and no solutions for increasing enrollment or reducing the drop-out rate are proposed. However, the introduction of this study programme in English may improve the situation regarding the student numbers.

2.1.5. Not applicable

Conclusions on this set of criteria, by specifying strengths and weaknesses

In summary, the title of the study programme “Environmental Planning” aligns well with its content and field, supported by a relevant education classification code. The study programme structure includes a Professional Master’s Degree in Environmental Planning, with a strong emphasis on internships. The admission requirements are reasonable, the study programme is available to students with relevant academic backgrounds or work experience. DU has an intention to implement the study programme in English, which is a strategic decision, aiming to enhance accessibility for both local and international students. However, clarity on English language proficiency requirements, specifically the need for standardised certificates, is necessary.

In conclusion, the economic and social justification for the PMSP “Environmental Planning” mirrors that of the AMSP “Environmental Science” (a steady need for experts in environmental sciences across Europe, social role of DU in Latgale region), with the added benefit of enhanced professional skills gained through internships. However, student enrollment remains low, with a notable drop-out rate primarily attributed to challenges in balancing work and studies. While the introduction of the study programme in English may help attract more students, there is a pressing need for DU to analyse the reasons behind drop-outs and implement strategies to increase enrollment and retention effectively.

Strengths:

- 1) The strong focus on internships enhances the professional skills of graduates, directly connecting to the professional qualification of “Environmental Management Specialist”.
- 2) Admission requirements determine that the study programme is accessible to a diverse range of students, including those with relevant academic backgrounds and work experience, which broadens the applicant pool.
- 3) The full-time format, with classes primarily on weekends, accommodates working students,

making it more feasible for them to balance work and studies.

4) The intention to implement the study programme in English is a positive step towards enhancing accessibility for international students.

5) Surveys indicate that both employers and graduates are generally satisfied with the content of the study programme, underscoring its relevance and quality.

Weaknesses:

1) The absence of detailed descriptions of specific study course changes limits the ability to fully assess the effectiveness of updates made to the study programme.

2) Student enrollment remains low, with a significant drop-out rate and there is the lack of detailed analysis regarding the reasons for it and the absence of proposed solutions to address this issue are concerning.

3) Regarding English language proficiency requirements - the necessity for standardised, internationally recognisable certificate is indicated.

4) Although the study programme is adequately designed, ongoing efforts to update the curriculum and careful analysis of current content are crucial for maintaining its attractiveness and relevance to prospective students.

5) Professional qualification standard "Environmental Management Specialist" is out of date.

2.2. The Content of Studies and Implementation Thereof

Analysis

2.2.1. The current status of the study programme is related to the employment opportunities and requests of graduates in private and public institutions. The survey results (SAR, p. 124) show that existing and potential employers believe environmental management professionals will be more in demand in the labour market in the future than they are today. The goal of the PMSP "Environmental Planning" study programme developed following current trends in the profession and the needs of the economy and society. The study programme ensures a link between the information included in the study courses, the results to be achieved, the objectives set, and the methods used.

All the regulations for structure of professional master study programmes were described in Cabinet of Ministers' regulations of June 13, 2023 No. 305 "Rules on the standard of state professional higher education". The Master's study programme should be at least 60 ECTS with the statement that the total first cycle of studies and masters studies consist of at least 300 ECTS. To fulfil this requirement, it must be kept in mind that in Latvia, according to the No 240 "Regulations regarding the State academic Education Standard," full-time bachelor study programmes should be at least 180 ECTS, and the amount of the Master's study programme should consist of 120 ECTS. This requirement is fulfilled (SAR, p.120).

According to Cabinet of Ministers' regulations of June 13, 2023 No. 305 "Rules on the standard of state professional higher education", professional master's study programmes refers to 2nd cycle professional higher education (level 7 education), while the study programme code 47431 complies with professional master's degree of fifth professional qualification.

According to the study plan (Annex 3.2.1. PMSP environmental planning study plan.xlsx), compulsory courses (Part A) and sector-specific courses (Part B) consist of 78 ECTS, except for practice. According to requirements of Cabinet of Ministers' Regulations No 305-13.06.2023, mandatory part of the study programme should consist of research project and management study courses at least of 5 ECTS, amount of practice of 39 ECTS, final qualification work of 30 ECTS, newest theoretical knowledge and skills of 8 ECTS. All these requirements were successfully fulfilled. According to Cabinet of Ministers Regulations No 305-13.06.2023, chapter IX, where evaluation principles are described, in section No 57, it is clearly stated that the evaluation method "passed/not

passed" could be used only for study courses with less than 3 ECTS. According to the study plan (Annex 3.2.1. PMSP environmental planning study plan.xlsx), such courses "Master's thesis development (II)" (6 ECTS), "Master's thesis development (III)" (9 ECTS), "Environmental management I - Professional qualification practice" (18 ECTS), "Master's thesis development (IV)" (12 ECTS) and "Environmental management II - Professional qualification practice" (18 ECTS) were evaluated only by "passed/not passed" method. This is noncompliance with the requirements of Cabinet of Ministers Regulations No 305-13.06.2023.

All the professional requirements for "Environmental management specialist" have been approved by the order of the Ministry of Education and Science of June 3, 2004 no. 336, comparison is given in SAR Annex 3.2.1. PMSP Environmental planning compliance with the prof standard.docx. It should be noted that not all knowledge classifications from the professional standard are included, for example sector "Ecotoxicology" is missing. And as there are references to specific study courses, it is expected that in the study course descriptions (SAR Annex PMSP_Environmental planning_course descriptions.zip) specific themes are mentioned. For example, specific knowledge of accounting is obtained in the study course "Concept and Practice of Sustainable Development", but there is no topic in the study course description about this theme, learning outcomes/study results not connected to accountancy. The same study course (Concept and Practice of Sustainable Development) is mentioned for knowledge in economic theory, management theory, environmental economics, but these topics were not included in the study course description.

In experts' opinion, the content of the study programme is appropriate to the qualification to be obtained, but structural non-compliance with the requirements specified in Latvian legislation is identified.

2.2.2. According to SAR, p. 129, the theoretical and practical parts of the study programme have been developed based on scientific developments in the sector. Academic staff participate in projects, and the results of studies shall be supported by regular participation in scientific and practical conferences and seminars.

Although SAR, p. 130 mentions that all teaching staff involved in implementing the study programme not only carry out teaching and scientific work, but also manage or participate in scientific projects, in the SAR annexes (2.3.7. Basic information about the teaching staff involved in the implementation of the study field.xlsx; also Information from Annex 2.4.4.scientific publications and participation in projects environmental protection.zip) it is shown that at least five from teaching staff have not participated in any research projects during the assessment period (2017-2022).

The majority (85%) of elected academic staff participate actively in writing scientific publications. Publicity activity is not even. Between 2017 and 2024, the number of Wos/SCOPUS indexed publications varies from passivity (no publications) to up to 35. The publicity of guest lecturers is also positive, although activity is significantly lower. Only 30% of guest lecturers have indexable publications.

2.2.3. The specifics of study courses and students' needs determine the structure of the study courses and the evaluation methods used. Implementation introduces a number of principles of student-centric education (SAR, p. 131), such as flexibility and individual approach, interactive learning materials and modern technologies, student protection and support mechanisms (observation during the site visit), and systematic feedback and evaluation.

The study plan is balanced, with a compulsory part (part A), a limited elective part (part B), an elective part (part C), and a practice part (internship). According to the study plan (Annex '3.2.1 PMSP environmental planning study plan.xls x'), Part A courses - 53%, Part B - 13%, Part C - 3%, and practice - 33%.

Analysis of the study course descriptions shows that classical teacher-centred teaching methods often dominate, as the proportion of lectures is very high. 92% of the cases in the list of compulsory

literature included in the course descriptions are in Latvian. This would cause problems for English-speaking foreign students. The list of mandatory literature in some cases needs to be updated; there is 20-30-year-old literature, e.g. "Watts S. and Halliwell L. (eds.), 1996. Essential Environmental Science: Methods and Techniques. Routledge, 544 pp.", "Briņķis J., Buka O. Teritoriālā plānošana un pilsētībūvniecība. Rīga, 2001. – 219 lpp."

2.2.4. According to SAR, p. 133, during the qualification practice, students acquire theoretical and applied knowledge in environmental management, developing and scaling up professional skills according to the professional standard of an "Environmental management specialist". After practice, a report has to be prepared. The total duration of the traineeship is 24 weeks, and the amount is 36 ECTS; the tasks directly belong to the study programme. Some cooperation agreements (e.g. State Environmental Service) have been concluded, offering several possible practice places. Another option is that students have the possibility to take Erasmus+ program practice. During the reporting period (2016-2022), three students used the opportunity to practice in Lithuania (Annex "2.5.3. Statistical data on program student mobility").

DU has approved an internal document (SAR, Annex "3.2.4. PMSP Environmental planning practice regulations") which states that the practice takes place in 3 phases: (1) "Implementation of environmental projects in Latvia" (3 ECTS); (2) "Environmental Management I" (18 ECTS); (3) "Environmental Management II" (18 ECTS).

In the first phase, the study course "Implementation of environmental projects in Latvia" is taken; the study plan (SAR, Annex "3.2.1. PMSP Environmental planning study plan.xlsx") shows that the evaluation of the study course is "passed/not passed", while the course description stipulates that the evaluation is on a 10-point scale. The second and third phases (SAR, Annexes 3.2.4. "3.2.4. PMSP Environmental planning practice tasks of VPS I", "3.2.4. PMSP Environmental planning practice tasks of VPS II") are implemented in places of practice (company, enterprise), and evaluation marks mentioned in the study plan is "passed/not passed," while in practice descriptions evaluations were in 10-point scale. In experts' opinion, practice implementation requirements as defined in the Cabinet of Ministers' Regulations No 305-13.06.2023 (Chapter 27), correspond to the study course descriptions (Environmental management I - Professional qualification practice; Environmental management II - Professional qualification practice) and after successful finalisation of practice learning outcomes were achieved. According to the Study Plan, the designation "dif. iesk." or currently "pass with grade" means that upon completion of the study course, the assessment is entered on a 10-point scale, as indicated in the course descriptions. This approach to evaluation aligns with the applicable regulations, particularly with the Cabinet of Ministers' Regulation No. 305 "Regulations on the State Professional Higher Education Standard" dated June 13, 2023, which stipulates that the assessment must be provided on a 10-point scale. Furthermore, upon reviewing the study course descriptions, it has been confirmed that the assessments for all courses are indeed entered according to the 10-point scale, in compliance with the rules and expectations. However, there is a technical error in the study plan – instead of the designation "dif. iesk.", it should read "pass with grade", which should be corrected in the future versions of the plan. The evaluations are in line with the applicable regulations, with the correction of the technical error in the designation.

2.2.5. Not applicable.

2.2.6. The master's theses developed and defended are related to topical issues and problem-solving in the sector; they are closely related to specialization. A total of 44 Master theses were defended between 2017 and 2023, and their score was high (above eight points). The number of defended theses varies widely from year to year; according to additional information requested, only three thesis were defended in 2022 and 11 in 2021. The workload of academic staff is

inhomogeneous. For the period 2017-2023, five supervisors managed the majority (86%) of the work.

In the context of the uneven distribution of the final thesis, there are dominance of some topics - environmental management studies (e.g., Inventory of Zasa manor park and recommendations for its management), research into the potential of using technologies in environmental studies (e.g. The application of GIS in planning of bicycle infrastructure in Daugavpils.), hydrological studies (e.g. Hydrological monitoring in the Dviete floodplain in the context of realization of the LIFE+ project "Dviete"), and biodiversity studies (e.g. Natural regeneration of Scots pine (*Pinus sylvestris* L.) five years after selective cutting and clear felling.).

The topics of the final thesis are in conformity with the study programme aim and tasks, knowledge acquired in study courses and skills acquired in practice.

Conclusions on this set of criteria, by specifying strengths and weaknesses

The demand for study programme graduates in the labour market is fully justified. The study plan does not conform structurally to the requirements (Cabinet of Ministers' regulations of June 13, 2023 No. 305 "Rules on the standard of state professional higher education") specified in Latvia for professional master's study programmes. Non-compliance with the professional standard "Environmental Management Specialist" requirements has been detected. Most academic staff participate in the implementation of scientific projects. Lectures as a teaching method dominate the study courses (except in some cases), and the compulsory literature in the study course descriptions is in Latvian, which will cause important problems for potential English-speaking students.

Strengths:

- 1) The knowledge provided in the study programme is diverse and practical skills are of high quality and conform to labour market requirements.
- 2) The defended Master's theses are highly evaluated.

Weaknesses:

- 1) Some nonconformity with national legislation requirements regarding professional master education and professional standard "Environmental Management Specialist".
- 2) Dominating part of compulsory literature is in Latvian.
- 3) Lecturing as a most frequently used teaching method.

Assessment of the requirement [5] (applicable only to master's or doctoral study programmes)

- 1 R5 - The study programme for obtaining a master's or doctoral degree is based on the achievements and findings of the respective field of science or field of artistic creation.

Assessment of compliance: Fully compliant

The majority (85%) of elected academic staff participate actively in writing scientific publications, but at the same time the publicity activity is not even. The number of Wos/SCOPUS indexed publications varies from passivity (no publications) to up to 35. The publicity of guest lecturers is also positive, although activity is significantly lower. Considering that most of the staff actively participate in research activities relevant to the study programme content, the experts conclude that the study programme is based on the achievements and findings of the respective field of science.

2.3. Resources and Provision of the Study Programme

Analysis

2.3.1. The study process basically takes place in the DU study buildings at Parades iela 1 and Parades iela 1a (SAR, p. 45).

Most of the resources - teaching staff, material and technical support, as well as information support - are shared for both Bachelor's and Master's study programmes of the "Environmental Protection" field of study.

Graduates during the expert visit admitted that having a bachelor degree in the same study programme makes Master level studies easier while it is not a mandatory provision. One respondent from graduate interviews even said that she was enrolled in a master study programme due to 2-year experience in the field, in spite of the fact that her bachelor degree was in a completely different field.

During the on-site visit, the experts toured the facilities and were impressed by the advanced laboratory resources available for study and research. It is beneficial for Environmental Protection study programmes that other related natural sciences, such as biology and chemistry, are well-developed and that the research equipment at DU is readily available.

The university has modernised its premises and buildings to accommodate people with disabilities, it has also been recognised by the Latvian Association of Disabled People and their Friends "APEIRONs" (SAR, p. 57-58).

Since the last assessment period, the library's opening hours have increased in response to relevant recommendations. Out of library hours, there is an opportunity to leave the borrowed books and use a self-service system "Bibliotheca". The library also provides access to graduates' final theses and their summaries, as well as two printers/scanners. According to SAR, p. 47, students have access to 10 scientific databases through the library, with five in Latvian and five in English. However, currently, the number of English-language books in fields such as environmental science is quite limited (SAR, p. 47).

The experts noted that the teaching staff are very enthusiastic but overworked (SAR, p. 19), which puts them at risk of burnout. Some teaching staff have extensive concurrent responsibilities in other institutions. For example, according to the CV (see annex "CV_EN.zip") of the director of the study programme in parallel has a full-time job as a deputy director of State Environmental Service in Latgale region, some others also have full-time jobs in the Nature Conservation Agency.

Regarding launching the study programme in English, the risk assessment should be made before, taking into account that teaching staff already are overloaded and due to lack of financial support have parallel working duties in other institutions.

The risk of burnout increases, especially with the upcoming launch of the study programme in English (SAR, p. 90). Probably the costs of launching the study programme in English is not assessed properly, as in SAR (SAR, p. 138) it is stated that the costs per student in the study programme in Latvian and in the English study programme shall not differ.

However, it was also mentioned during the meeting that guest lecturers can be paid only for contact hours, which makes the preparation of electronic learning materials to upload in an e-learning environment (e.g. Moodle) challenging. It was also mentioned that video lectures could not be uploaded to the Moodle system due to exceeding the maximum file size. As a result, other file-sharing platforms are used, which could lead to issues of data security and unauthorized access.

It was mentioned in the meeting that the average age of students is increasing, especially in Master's study programme where people are usually already working in the field, are motivated, have their specific research interests and clarity regarding topics for final theses. However, it could reduce their mobility. Usually students of PMSP "Environmental Planning" have a schedule of lectures friendly for combining with full-time work and they usually do not use a dormitory.

Regarding the current lack of students, DU should consider developing life-long learning

programmes. For example, when asked what could be the topics of interest for Life-long learning programmes, some of the graduates admitted that courses of European and national legislation updates could be useful.

According to SAR, p. 44, the funding for the improvement of the educational material and technical base is mainly provided from various projects but also for contractual research. Therefore good cooperation with the industry is crucial.

Regarding the current cooperation with industry in April 2024, Daugavpils University established the Research and Business Center (REBUS) (<https://du.lv/zinatne/petniecibas-un-biznesa-centrs-rebus/>) to foster the development of the research and innovation ecosystem at the university and in the surrounding region. REBUS focuses on several key areas: research and innovation support, technology transfer, industrial liaison, partnerships, and policy development. The center frequently hosts meetings with industry representatives to promote collaboration between science and business for economic growth (<https://du.lv/projektu-zinas/think-tank-2-discussion-collaboration-between-science-and-business-for-economic-growth/>).

Over the past six years, the Department of Environmental Protection at DU, in collaboration with the Institute of Life Sciences and Technologies, has engaged in various contractual projects, partnering with Nature Protection Administration, municipalities, private companies and National Armed Forces in such projects as the development of nature protection plans for protected natural areas, tar reduction in the process of peat distillation, on the utilization of old car tires and the quality of obtained oil products, developing brand of bottled drinking water, ammunition quality assessment (DU submitted answers after the on-site visit).

Two of the teaching staff on the field are owners or co-owners of patents, however, none of the students (DU submitted answers after the on-site visit).

2.3.2. Not applicable

2.3.3. The cost calculation for one student in the programmes of the study field is made at the Department of Finance and Accounting of DU (SAR, p. 43). The percentage breakdown of costs is similar to the study programme ABSP "Environmental Science". The costs of the PMSP "Environmental Planning" consist of: salary fund - 60.6 %, employer SSIMC - 14.3%, costs of business trips and business trips - 1.5%, services - 6.7%, costs of materials, energy resources, water - 5.1%, cost of purchasing books and magazines - 0.5%, equipment purchase and investment costs - 6.4 %, for student social security - 4.9 % (SAR, p. 138).

According to table 3.3.3. PMSP "Environmental planning" costs per 1 student" (SAR, p. 138) costs per one student are 5157.02 EUR/year (10317.04 EUR for 2 years). The study fee for PMSP "Environmental planning" is set in the following amount – 1600 EUR/year (3200 EUR in total). So the fee paid by students or the state funding is only a half of expenses indicated in table 3.3.3. It was explained by DU that as PMSP "Environmental planning" is one of the priority study fields (STEM field) and specialists in this profession are in high demand on the market, the difference between the tuition fees and the actual costs is covered from the DU budget (DU submitted answers after the visit).

It is indicated in SAR that the costs per student in ABSP "Environmental science" in Latvian and in the English programme shall not differ (SAR, p. 138). However, the experts disagree, as there will be additional costs in launching an English version of the study programme. When asked to present their considerations on this statement, DU referred basically to e-books and e-journals available to use as teaching material (DU submitted answers after the visit). Nevertheless, in the opinion of experts, materials needed for learning at the university cannot be reduced to available electronic books. At least in the initial phase, sufficient resources must be allocated to launch the study programme in English. The experts believe that developing training materials in English for lecturers

is a time-consuming and resource-intensive process. This aspect likely has not been adequately considered by DU and should therefore be re-evaluated.

The minimum number of students in a group to ensure the profitability of the study programme is 7 students (SAR, p. 139). According to SAR, annex 3.1.4. "Statistics on students Environmental protection.xlsx" during the reporting period, a minimal number of students in a group to ensure the profitability of the study programme was provided in each academic year.

Conclusions on this set of criteria, by specifying strengths and weaknesses

The study provisions are adequate for the implementation of the PMSP "Environmental planning". The methodological and informational resources are accessible and sufficient for students. Expenses are planned for each student. However, the finances are not balanced as the study programme cannot operate cost-effectively on its own, necessitating additional financial support from the DU budget. The expert team disagrees with the assertion that launching an English version of the study programme will incur no additional costs.

Strengths:

- 1) Impressive laboratory facilities for study and research.
- 2) Enthusiastic teaching staff.
- 3) Accessible premises and buildings for people with disabilities.
- 4) Well-developed related natural sciences and available research equipment at DU.
- 5) Individual and personal approach to students.
- 6) Wide involvement of industry representatives in lecturing.

Weaknesses:

- 1) Overworked teaching staff with additional responsibilities in other institutions, increasing the risk of burnout.
- 2) Limited number of English-language books in field.
- 3) Maintenance costs of laboratory equipment lack a regular source of funding
- 4) Guest lecturers can be paid only for contact hours.
- 5) The costs of launching the study programme in English might not be assessed properly.
- 6) The study programme cannot be operated in a cost-effective way on its own.

Assessment of the requirement [6]

- 1 R6 - Compliance of the study provision, science provision (if applicable), informative provision (including library), material and technical provision and financial provision with the conditions for the implementation of the study programme and ensuring the achievement of learning outcomes

Assessment of compliance: Partially compliant

The finances cannot be considered balanced as the study programme cannot be operated in a cost-effective way on its own.

2.4. Teaching Staff

Analysis

2.4.1. Based on the information from SAR, p. 139 "3.4 Teaching Staff" and feedback from the onsite meeting, it is clear that while the qualifications of the teaching staff at DU generally comply with the

formal requirements set forth in regulatory enactments, several challenges prevent full alignment with the aims and learning outcomes of the Environmental Planning study programme.

Second, the small number of MSc students, many of whom are working professionals, adds complexity. These students have limited availability due to their employment, which necessitates flexible teaching schedules and individualized approaches. While the staff do their best to accommodate these needs, this arrangement complicates the delivery of a consistent, high-quality educational experience. Moreover, the small cohort size limits collaborative learning opportunities, which are vital for fully achieving the study programme's educational objectives.

Additionally, the heavy workload of teaching staff, due to the need to balance teaching, research, and administrative tasks, restricts their ability to engage in ongoing research and professional development. This not only affects their own growth but also impacts their ability to provide students with research-driven insights and maintain a cutting-edge curriculum, which is a key requirement for the study programme's success.

The teaching staff involved in the professional master's study programme "Environmental Planning" at DU are selected based on criteria that ensure they are qualified specialists with active scientific engagement. There are 21 lecturers involved in the study programme, equivalent to 1.80 full-time positions. Among them, there is a balanced mix of ranks, including a professor, associate professor, assistant professors, and researchers, with 45% of the teaching staff holding doctoral degrees. Additionally, 7 of the lecturers are guest lecturers from relevant industries, bringing practical experience into the academic setting.

DU encourages the academic staff to participate in professional development through study courses on pedagogical methods and international qualifications, ensuring they remain up-to-date in both teaching and research. There is also a strong emphasis on maintaining a professional dialogue between staff and students, with opportunities for students to contribute directly to improving the study process.

In terms of linguistic competence, staff teaching in English must meet at least a B2 level, although lecturers with lower English proficiency can be substituted by more qualified staff when necessary. A notable feature of the study programme is the involvement of industry professionals in delivering specialized courses, which supports the practical orientation of the study programme.

There have been no major changes in the composition of teaching staff since the study programme was licensed, with continuity maintained across courses. However, DU has proactively increased the number of lecturers by recruiting younger academics, reducing the risk of staff shortages and contributing to the diversity of teaching methods and equipment available to students. These changes have positively impacted the study quality, exposing students to a broader range of research tools and increasing their involvement in scientific and practical projects, which enhances both their academic and practical experience (SAR, p. 139).

In conclusion, while the teaching staff at DU meets the formal qualification requirements, the combination of outdated expertise in certain areas, the challenge of accommodating working students, and the overwhelming workload limit their ability to fully achieve the study programme's aims and learning outcomes. Therefore, there is only partial compliance with the criterion.

The qualification of the teaching staff is essential in the context of the resource assessment. According to SAR, p.140, fig. 3.4.1.2. "The personnel involved in the implementation of PMSP "Environmental Planning" which have doctor's and master's degrees" most of the teaching staff (55%) in PMSP "Environmental Planning" have M.Sc. degree. During the visit it was asked if DU has any plans to encourage them to increase their scientific degree, but it was explained that these personnel represent the industry, therefore are not motivated to get a higher scientific degree while being highly skilled in their specific field. Students in the expert interviews also admitted that they appreciate involvement of industry representatives, naming it "great opportunity". Students also confirmed that guest speakers provide practical insights into the field and from their point of view fit into the overall study programme.

2.4.2. DU has established a system to address changes in the composition of its teaching staff for the Environmental Planning study programme, aiming to ensure that such transitions do not negatively impact the quality of study course delivery or compliance with regulatory requirements (SAR, p. 140). However, despite these efforts, the system has not been fully effective in preventing disruptions in the continuity and coherence of the study programme.

Based on the information provided during onsite meetings, DU has measures in place to manage changes in the composition of the teaching staff, but these measures are not fully effective in preventing negative impacts on the quality of the study programme. Staff transitions have, at times, disrupted the continuity and coherence of study course delivery, particularly due to the already heavy workload placed on the remaining faculty.

One of the main challenges identified during the analysis is the heavy workload borne by the existing faculty. When teaching staff members leave or transition out, the remaining faculty often have to absorb additional responsibilities, which places a strain on their ability to maintain the same level of teaching quality. The workload, already substantial, limits their capacity to provide the kind of thorough, consistent engagement that the study programme requires. This increased burden can result in gaps in course content and diminished student learning experiences.

Another significant issue is the shortage of qualified replacements when faculty members depart. Although DU has measures in place to recruit new academic staff, finding individuals who possess the necessary qualifications and expertise quickly enough to ensure a smooth transition has proven difficult. This challenge is compounded by the high teaching loads, which make it even harder for the existing staff to manage additional duties without affecting the overall delivery of the study programme.

While DU attempts to ensure that staff changes do not compromise the quality of the Environmental Planning study programme, these efforts are limited. Additionally, the high teaching loads make it difficult for existing staff to absorb the responsibilities of outgoing staff without affecting the quality of study programme delivery.

To mitigate these risks, DU has taken steps to recruit younger academic staff and incorporate guest lecturers from state and local government institutions. This influx of new talent, particularly from industry professionals, has added value to the study programme by bringing practical experience and exposure to cutting-edge research methods. The new lecturers contribute a fresh perspective and offer students access to a broader range of research tools and methodologies. These improvements have had a positive impact on students, particularly in terms of their research projects and final theses, allowing them to work with more advanced equipment and techniques.

However, despite these positive measures, the system is not yet robust enough to fully prevent disruptions. The reliance on guest lecturers, while enhancing the practical aspect of the curriculum, cannot completely compensate for the need for permanent teaching staff who provide consistent engagement throughout the academic year. Guest lecturers typically focus on specific study courses or areas of expertise, but they are not always present to oversee the broader progression of the study programme, which can lead to fragmentation in course delivery.

Furthermore, while the recruitment of younger lecturers helps reduce the risk of staff shortages, the integration of new staff into the study programme can take time, during which the quality of the course delivery may fluctuate. Without a structured system for quickly integrating new teaching staff or providing interim coverage, the university is vulnerable to temporary declines in the quality of education when faculty transitions occur.

2.4.3. Not applicable.

2.4.4. The group of teachers involved in the study programme at DU demonstrates a varied level of commitment to research and professional activities, which contributes to both strengths and challenges in meeting Criterion 2.4.4.

Over the past six years, many faculty members have been actively involved in conducting research covering various fields, such as natural sciences, linguistics, hydroecology, biology, chemistry and law. These academic staff members regularly contribute to peer-reviewed journals, and a significant part of their work is published in international editions. The presence of international publications is a key strength, as it raises the academic profile of both the faculty and the study programme itself, providing students with access to cutting-edge research on a global scale. Furthermore, the faculty's involvement in international academic networks, such as participation in conferences and participation in joint research projects, emphasizes their active role in the wider scientific community.

A particularly valuable aspect of the profile of teaching staff is the integration of practical experience into their roles. Several faculty members bring extensive practical experience from their fields, such as applied science, environmental management, and law enforcement. This practical knowledge adds depth to the professional study programmes, providing students with real-world insights and applications of theoretical concepts. The presence of industry professionals and guest lecturers further enriches the curriculum, especially in areas where practice is as important as theory.

However, despite these strengths, there are areas where the group as a whole faces challenges in fully meeting the expectations of Criterion 2.4.4. While several faculty members are very active in research and maintain a steady stream of publications, others are less consistently committed to publishing peer-reviewed work. This inconsistency is particularly evident in international journals, where not all members have been able to maintain a regular presence. For some, teaching and administrative responsibilities take precedence, limiting their ability to consistently contribute to the academic literature.

Reliance on the practical experience of some staff members, while valuable in the context of teaching, does not fully meet the criterion's emphasis on consistent research output in peer-reviewed editions. While practical knowledge enhances the quality of education, especially in professional study programmes, it does not replace academic expectations for continuous research input, especially in fields requiring continuous scientific engagement.

This imbalance between research and teaching responsibilities affects the overall academic reputation of the study programme. While students benefit from instructors with a strong practical background, the lack of regular peer-reviewed publications by some staff members can distract from the research-based nature of the study programme. Regardless of the intentions behind the study programme's design to create professional studies at the university level, the value of university education should primarily be based on providing solid theoretical knowledge. It should also foster an openness to new trends in the practical aspects of education. This can only be ensured by teachers who, in addition to their practical expertise (which can be assessed by experts), also have experience in expanding knowledge, whether through active participation in publications, attending conferences, pursuing further academic degrees, or documented professional development, such as internships (including international ones) or specialized courses. This imbalance also affects the study program's ability to fully align with the research standards expected of higher education institutions, as stipulated in the Law on Higher Education Institutions.

In summary, while the staff of DU brings significant strengths in terms of diversity of research fields, international engagement, and practical experience, there is still a gap in ensuring a consistent publication output by all members of the teaching staff. The joint efforts of the staff reflect partial fulfillment of the criterion, and greater institutional support in terms of time and resources for research could help to more effectively balance teaching and research responsibilities. This will enable the study programme to fully meet the expectations of current peer-reviewed publications and maintain scientific rigor.

2.4.5. At DU, a formal mechanism has been established to promote cooperation among teaching staff, with the primary goal of ensuring that the Environmental Planning study programme is

implemented effectively and that its study courses are well-integrated. This mechanism, designed to foster regular collaboration, includes activities such as planned meetings, course reviews, and discussions aimed at aligning individual study courses with the broader goals of the curriculum. It emphasizes the need for faculty members to work together in coordinating study course content, preventing overlaps, and ensuring that each study course builds on the knowledge gained in the previous one, creating a smooth, cohesive learning experience for students.

In theory, this mechanism is intended to function smoothly, with teaching staff regularly reviewing course materials, updating content to reflect the latest literature and methodologies, and engaging in discussions to ensure that the curriculum remains current and relevant to both academic standards and labor market needs. Additionally, the feedback loop involving industry professionals, graduates, and internship providers is designed to offer insights into how the study programme can adapt to evolving market demands, further aligning academic learning with practical skills.

However, feedback from the onsite visit suggests that while this mechanism exists, its implementation in practice has faced significant challenges. One of the primary obstacles is the heavy workload placed on the teaching staff. Faculty members are often tasked with multiple responsibilities, including teaching several study courses, conducting research, and handling administrative duties. These demands leave limited time for meaningful collaboration and regular coordination meetings. As a result, opportunities for faculty to work together on aligning study courses and ensuring that content is interconnected are reduced, leading to gaps in the coherence of the curriculum.

Another issue identified is the relatively small number of faculty members involved in the study programme. With a limited pool of staff, the burden of teaching, along with other duties, is concentrated among a few individuals. This exacerbates the problem of insufficient collaboration, as the already stretched faculty members struggle to find time to meet and discuss course integration. The small team size makes it difficult to maintain the kind of ongoing communication that is necessary to ensure that study courses are linked and that knowledge progresses in a logical sequence across study years.

Moreover, the lack of frequent and robust communication between staff members has, in some instances, led to disconnections between courses. Without regular coordination, it becomes difficult to prevent content duplication or address potential knowledge gaps, resulting in inconsistencies in the student learning experience. Students may encounter repeated material or, conversely, may find that certain topics are not covered thoroughly enough, which disrupts the intended progression of their education.

The partial implementation of the cooperation mechanism also has implications for the students' overall experience within the study programme. Ideally, a well-coordinated curriculum would allow students to see how each study course fits into the broader context of their studies, giving them a clearer understanding of how the knowledge they acquire is interconnected. However, when coordination between faculty members is lacking, students may find it harder to connect the material from one study course to the next, which can hinder their ability to fully grasp the larger picture of the field. This disjointed learning experience can undermine the effectiveness of the study programme, as students might miss key connections between subjects that are crucial to their understanding of environmental protection.

In addition to these issues, the feedback process—whereby faculty members are supposed to gather input from external stakeholders such as employers, industry experts, and graduates—is not being utilized to its full potential. While feedback is collected, the time and energy required to integrate this information into study course planning are often lacking due to the faculty's heavy workload. As a result, the mechanism for aligning the study programme with real-world market demands is not as effective as it could be.

Despite these challenges, the framework for faculty cooperation remains in place, and the university recognizes the need to strengthen its implementation. To address these issues, several steps could

be taken. First, providing additional support for faculty members, such as hiring more staff, would alleviate some of the workload and free up time for more consistent collaboration. Second, enhancing communication channels, perhaps by adopting digital tools for easier coordination or designating specific faculty members to oversee collaboration efforts, could help ensure that regular communication takes place. Lastly, institutional support in the form of more structured, mandatory collaborative sessions could encourage greater engagement from faculty, ensuring that the mechanism for cooperation becomes more than just a formal process, but a functional and integrated part of the study programme's delivery.

In conclusion, while the mechanism for mutual cooperation among teaching staff at DU exists and is theoretically sound, its practical application has been hindered by workload pressures, limited faculty numbers, and communication challenges. These issues have led to partial implementation of the intended coordination and integration of the Environmental Planning study programme. Strengthening this mechanism will require increased faculty engagement, better communication, and institutional support to ensure that the study programme's aims are fully realized and that students benefit from a cohesive, well-structured educational experience.

Conclusions on this set of criteria, by indicating strengths and weaknesses

DU has established mechanisms for ensuring that the qualifications, research involvement, and cooperation of teaching staff meet the regulatory requirements for the Environmental Planning study programme. These systems support the alignment of study course content with the overall goals of the study programme and promote compliance with academic standards. However, challenges such as heavy teaching loads, outdated expertise in some subject areas, and inconsistent cooperation between staff members prevent the study programme from fully achieving its potential. Additionally, while measures exist to manage staff transitions, these are not always robust enough to prevent disruptions in study course delivery, particularly in relation to continuity and the cohesion of the curriculum.

Strengths:

- 1) Qualified faculty with a mix of academic and practical experience.
- 2) Active research involvement with international publications.
- 3) Established framework for faculty cooperation.
- 4) Practical expertise enhances the learning experience.

Weaknesses:

- 1) Most of the teaching staff have M.Sc. degree only.
- 2) Heavy workloads limit research and professional development.
- 3) Some staff lack up-to-date knowledge in advanced topics.
- 4) Inconsistent faculty cooperation affects study course integration.

Assessment of the requirement [7]

- 1 R7 - Compliance of the qualification of the academic staff and visiting professors, visiting associate professors, visiting docents, visiting lecturers and visiting assistants with the conditions for the implementation of the study programme and the requirements set out in the respective regulatory enactments.

Assessment of compliance: Partially compliant

The academic staff partially complies with the requirement due to heavy workloads, outdated expertise among some faculty, and challenges with staff transitions and cooperation, which

impact study programme quality and continuity.

2.5. Assessment of the Compliance

Requirements

- 1 - The study programme complies with the State Academic Education Standard or the Professional Higher Education Standard

Assessment of compliance: Partially compliant

In general, PMSP complies with the Professional Higher Education Standard (Cabinet Regulation No. 305 "Noteikumi par valsts profesionālās augstākās izglītības standartu"). However, the limited elective study course (part B) planning leaves no choice for the students, it needs to be revised.

- 2 - The study programme complies with a valid professional standard or the requirements for the professional qualification (if there is no professional standard required for the relevant occupation) provided if the completion of the study programme leads to a professional qualification (if applicable)

Assessment of compliance: Partially compliant

Average and formal compliance with professional standard (Environmental management specialist. code PS0268, approved by the order of the Ministry of Education and Science of June 3, 2004 no. 336.) is recognized, some knowledge gaps to be obtained within study courses are identified.

- 3 - The descriptions of the study courses and the study materials have been prepared in all languages in which the study programme is implemented, and they comply with the requirements set forth in Section 561 , Paragraph two and Section 562 , Paragraph two of the Law on Higher Education Institutions.

Assessment of compliance: Partially compliant

Course descriptions "ABSP_Vides_zinatne_kursu_apraksti_LV.zip" are available in both Latvian and English. Until now the study programme has been implemented in Latvian, but application for accreditation is applied for Latvian and English. All course descriptions contain the requirements set forth in the corresponding sections of the Law on Higher Education Institutions. Some weaknesses belong to compulsory literature only in Latvian, which could raise problems to only English speaking auditory. It should be mentioned that some study course descriptions included 30-60 years old literature.

- 4 - The sample of the diploma to be issued for the acquisition of the study programme complies with the procedure according to which state recognised documents of higher education are issued.

Assessment of compliance: Fully compliant

The provided Diploma sample annex "3.1.2. PMSP Environmental planning example of diploma and supplement.zip" complies with the procedure by which state-recognised documents of higher education are issued in accordance with Cabinet Regulation No. 202 "Kārtība, kādā izsniedz valsts atzītus augstāko izglītību apliecinošus dokumentus".

- 5 - The academic staff of the academic study programme complies with the requirements set forth in Section 55, Paragraph one, Clause 3 of the Law on Higher Education Institutions.

Assessment of compliance: Not relevant

- 6 6 - Academic study programmes provided for less than 250 full-time students may be implemented and less than five professors and associated professors of the higher education institution may be involved in the implementation of the mandatory and limited elective part of these study programmes provided that the relevant opinion of the Council for Higher Education has been received in accordance with Section 55, Paragraph two of the Law on Higher Education Institutions.

Assessment of compliance: Not relevant

- 7 7 - At least five teaching staff members with a doctoral degree are among the academic staff of an academic doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field of science. At least five teaching staff members with a doctoral degree are among the academic staff of a professional doctoral study programme in arts (if applicable).

Assessment of compliance: Not relevant

- 8 8 - The teaching staff members involved in the implementation of the study programme are proficient in the official language in accordance with the regulations on the level of the official language knowledge and the procedures for testing official language proficiency for performing professional duties and office duties.

Assessment of compliance: Fully compliant

Attached resumes of staff ("CV_EN.zip") verifies that state language proficiency is compliant with Cabinet Regulation No. 733 "Noteikumi par valsts valodas zināšanu apjomu, valsts valodas prasmes pārbaudes kārtību un valsts nodevu par valsts valodas prasmes pārbaudi".

- 9 9 - The teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language, if the study programme or any part thereof is to be implemented in a foreign language (if applicable).

Assessment of compliance: Partially compliant

Applicable since the programme has been applied for accreditation also in English.

According to attached resumes of staff ("CV_EN.zip") one of the teaching staff has only a B1 level in English.

- 10 10 - The sample of the study agreement complies with the mandatory provisions to be included in the study agreement.

Assessment of compliance: Fully compliant

Sample of attached study agreement ("2.1.4_Agreement_on_studies.docx" and "2.1.4_Studiju_līguma_paraugs.docx") complies with Cabinet Regulation No. 70 "Studiju līgumā obligāti ietveramie noteikumi".

- 11 11 - The higher education institution / college has provided confirmation that students will be provided with opportunities to continue their education in another study programme or another higher education institution or college (agreement with another accredited higher education institution or college) if the implementation of the study programme is terminated.

Assessment of compliance: Fully compliant

Attached contract ("Agreement between DU and LU_Environmental protection.docx") confirms that the institution provides the possibility to continue studies in the academic master's study programme Environmental Science (45431) in University of Latvia.

- 12 12 - The higher education institution / college has provided confirmation that students are guaranteed compensation for losses if the study programme is not accredited or the study programme's license is revoked due to the actions (actions or omissions) of the higher education institution or college and the student does not wish to continue studies in another study programme.

Assessment of compliance: Fully compliant

DU confirmation (annex "CONFIRMATION_Compensation guarantee for students.docx") states, that students are guaranteed compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the college (actions or failure to act) and the student does not wish to continue the studies in another study programme.

- 13 13 - The joint study programmes comply with the requirements prescribed in Section 55.(1), Paragraphs one, two, and seven of the Law on Higher Education Institutions (if applicable)

Assessment of compliance: Not relevant

- 14 14 - Compliance with the requirements specified in other regulatory enactments that apply to the study programme being assessed (if applicable)

Assessment of compliance: Not relevant

Assessment of the requirement [8]

- 1 R8 - Compliance of the study programme with the requirements set forth in the Law on Higher Education Institutions and other regulatory enactments.

Assessment of compliance: Partially compliant

In general compliance with national legislation for higher education and professional standard requirements was recognized. But some inconsistency concerning the evaluation system and structural components was identified. According to attached resumes of staff ("CV_EN.zip") one of the teaching staff has only B1 level in English.

General conclusions about the study programme, indicating the most important strengths and weaknesses of the study programme

In summary, the study programme "Environmental Planning" aligns well with its content and field. The study programme structure includes a Professional Master's Degree in Environmental Planning, with a strong emphasis on internships. The economic and social justification for the PMSP "Environmental Planning" mirrors that of the AMSP "Environmental Science" (a steady need for experts in environmental sciences across Europe, social role of DU in Latgale region), with the added benefit of enhanced professional skills gained through internships. However, student enrollment remains low, with a notable drop-out rate primarily attributed to challenges in balancing work and studies. While the introduction of the study programme in English may help attract more students, there is a pressing need for DU to analyse the reasons behind drop-outs and implement strategies to increase enrollment and retention effectively. Also, clarity on English language proficiency requirements, specifically the need for standardised certificates, is necessary.

The methodological and informational resources are accessible and sufficient for students, and expenses are planned for each student. However, the finances are not balanced as the study programme cannot operate cost-effectively on its own, requiring additional financial support from the DU budget. The expert team disagrees with the claim that launching an English version of the study programme will incur no additional costs.

The demand for study programme graduates in the labour market is fully justified and the content of the studies was actual. Unfortunately, the study plan does not conform structurally to the legislation requirements specified in Latvia for professional master's programmes and also non-compliance with the professional standard "Environmental Management Specialist" requirements has been detected. Valuable that most academic staff participate in the implementation of scientific projects. Lectures as a teaching method dominate the study courses (except in some cases), and the compulsory literature in the course descriptions is in Latvian, which will cause important problems for English-speaking students.

DU has established mechanisms for ensuring that the qualifications, research involvement, and cooperation of teaching staff meet the regulatory requirements for the Environmental Planning study programme. These systems support the alignment of study course content with the overall goals of the study programme and promote compliance with academic standards. However, challenges such as heavy teaching loads, outdated expertise in some subject areas, and inconsistent cooperation between staff members prevent the program from fully achieving its potential. Additionally, while measures exist to manage staff transitions, these are not always robust enough to prevent disruptions in study course delivery, particularly in relation to continuity and the cohesion of the curriculum.

On the basis of the detailed analysis of the expert group, the strengths and weaknesses of the study programme were identified. The compliance of the study programme is average with the accreditation requirements and all the deficiencies mentioned can be remedied within the accreditation period of the study programme in accordance with the present assessment.

Strengths:

- 1) Impressive laboratory facilities for study and research.
- 2) Accessible premises and buildings for people with disabilities.
- 3) Wide involvement of industry representatives in lecturing.
- 4) The knowledge provided in the study programme is diverse and practical skills are of high quality and conform to labour market requirements.
- 5) The defended Master's theses are highly evaluated.
- 6) Qualified faculty with a mix of academic and practical experience.
- 7) Active research involvement with international publications.
- 8) Established framework for faculty cooperation.
- 9) Practical expertise enhances the learning experience.
- 10) Admission requirements determine that the study programme is accessible to a diverse range of students, including those with relevant academic backgrounds and work experience, which broadens the applicant pool.
- 11) The full-time format, with classes primarily on weekends, accommodates working students, making it more feasible for them to balance work and studies.
- 12) The intention to implement the study programme in English is a positive step towards enhancing accessibility for international students.
- 13) Surveys indicate that both employers and graduates are generally satisfied with the content of the study programme, underscoring its relevance and quality.

Weaknesses:

- 1) The absence of detailed descriptions of specific study course changes limits the ability to fully assess the effectiveness of updates made to the study programme.
- 2) Student enrollment remains low, with a significant drop-out rate and there is the lack of detailed analysis regarding the reasons for it and the absence of proposed solutions to address this issue are concerning.
- 3) Regarding English language proficiency requirements - the necessity for standardised,

internationally recognisable certificate is indicated.

4) Although the study programme is adequately designed, ongoing efforts to update the curriculum and careful analysis of current content are crucial for maintaining its attractiveness and relevance to prospective students.

5) Professional qualification standard "Environmental Management Specialist" is out of date.

6) Overworked teaching staff with additional responsibilities in other institutions, increasing the risk of burnout.

7) Potentially underestimated costs of launching the study programme in English.

8) The finances are not balanced as the study programme cannot operate cost-effectively on its own, necessitating additional financial support from the DU budget.

9) Nonconformity with national legislation requirements regarding professional master education and professional standard of "Environmental Management Specialist".

10) Dominating part of compulsory literature is in Latvian.

11) Lecturing as a most frequently used teaching method.

12) Heavy workloads limit research and professional development.

13) Some staff lack up-to-date knowledge in advanced topics.

14) Inconsistent faculty cooperation affects study course integration.

Evaluation of the study programme "Environmental Planning"

Evaluation of the study programme:

Average

2.6. Recommendations for the Study Programme "Environmental Planning"

Short-term recommendations

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| 1. Conduct a detailed analysis of the reasons behind the low student enrollment and high drop-out rates, and develop targeted solutions to address these issues. |
| 2. Include a need for standardized, internationally recognized certificates for English language proficiency in the study programme's admission requirements. |
| 3. Establish a systematic approach for regularly updating the curriculum and analysing of the current content to ensure the study programme remains attractive and relevant to prospective students. |
| 4. For uploading video lectures outside the electronic learning environment (for example, Moodle), it is crucial to ensure data security and restricted access to prevent unauthorized access to learning materials. |
| 5. To improve the response rates for student feedback surveys, the respondents should receive feedback on the issues identified through these surveys and the measures taken to address them. |
| 6. Regarding the launch of the study programme in English, a risk assessment should be conducted. This should take into account the current workload of the teaching staff, who are already overburdened, and the lack of financial support, which forces them to take on additional duties at other institutions. |
| 7. With plans to develop the study programme in English, the library must increase the number of English-language materials (the books in environmental science, its sub-branches, geomatics, Earth sciences and communication sciences) and allocate resources for their development. |

8. Review study programme and improve it according to national legislation requirements regarding professional master education and professional standard of “Environmental Management Specialist”.
9. The content of study courses must be updated to prevent the inclusion of obsolete literature. The list of compulsory literature should be carefully considered so that potential English-speaking students can also use it.
10. Temporarily reduce faculty workloads by redistributing teaching responsibilities or offering more flexible schedules to free up time for research and collaboration.
11. Implement digital tools for easier coordination among staff to strengthen collaboration and study course integration.
12. Provide short-term professional development workshops focused on current trends in environmental protection to update faculty knowledge.
13. Create a short-term action plan to ensure smooth course delivery during staff transitions by designating interim faculty or providing mentorship for new staff.
14. Substantially improve study materials, study environment in order to ensure equal study opportunities for students studying in Latvian and English if the studies in English are offered. Otherwise, the study programme shall be offered only in Latvian
15. Ensure consistent quality in the delivery of the study programme taught in English, taking into account all relevant factors: pedagogical approach, assessment, students' rights, and support from technical services.

Long-term recommendations

1. Take an active role for the timely updating of the professional qualification standard for “Environmental Management Specialist” to ensure alignment with current industry practices and requirements.
2. Consider developing life-long learning programmes for graduates and other interested parties.
3. Provide academic staff with training in the acquisition and practical implementation of student-centred methods in the course of training to integrate into study courses.
4. Invest in hiring more teaching staff to permanently alleviate heavy workloads, allowing faculty to focus on research, collaboration, and professional development.
5. Implement a long-term professional development plan that ensures that the faculty stay current with emerging topics in environmental protection, including regular training, workshops, and sabbaticals for research.
6. Develop a formal, long-term system for faculty cooperation, including regular, structured meetings, collaborative research opportunities, and better integration of digital tools to enhance communication and study course alignment.
7. Build a comprehensive staff transition strategy that includes succession planning, mentorship programs for new faculty, and a pool of potential replacements to ensure continuity in teaching and curriculum delivery when staff changes occur.

III - Assessment of the Requirements for the Study Field and the Relevant Study Programmes

III - Assessment of the Requirements for the Study Field and the Relevant Study Programmes

Assessment of the Requirements for the Study Field

Requirements	Requirement Evaluation		Comment
R1 - Pursuant to Section 5, Paragraph 2.1 of the Law on Higher Education Institutions, the higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study field whilst implementing its internal quality assurance system:	Fully compliant		DU has implemented a quality assurance system and described the necessary quality assurance processes.
R2 - Compliance of scientific research and artistic creation with the level of development of scientific research and artistic creation (if applicable)	Fully compliant		Scientific research in the study field is in line with the level of the development of scientific research.
R3 - The cooperation implemented within the study field with various Latvian and foreign organizations ensures the achievement of the aims of the study field.	Fully compliant		DU has strong cooperation with Latvian and international institutions, contributing significantly to the study field's aims through joint research, publications, and exchanges. The experts would like to emphasise that improvements are needed to increase incoming international teaching staff and international student enrollment.
R4 - Elimination of deficiencies and shortcomings identified in the previous assessment of the study field, if any, or implementation of the recommendations provided.		Partially compliant	DU has successfully implemented some of the recommendations, but lacks a functioning system on how to monitor implementation of recommendations, who is responsible for this process, and how it is monitored.

Assessment of the Requirements for the Relevant Study Programmes of the Study Field

No.	Study programme	R5	R6	R7	R8	Evaluation of the study programme (excellent, good, average, poor)
1	Environmental Science (43431)	Not relevant	Partially compliant	Partially compliant	Partially compliant	Average
2	Environmental Planning (47431)	Fully compliant	Partially compliant	Partially compliant	Partially compliant	Average

The Dissenting Opinions of the Experts

There are no different expert opinions.