

Expert group joint opinion

Evaluation Procedure: Assessment of Study Field

Higher Education Institution: Latvijas Lauksaimniecības universitāte

Study field: Architecture and Construction

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Summary Assessment of the Study Field

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Latvia University of Life Sciences and Technologies (LLU) is the fourth-largest university in Latvia (established in 1936). Its vision sets an ambition to become one of the leading science and technology universities of the Baltic Sea region, with a specialisation in the sustainable use of natural resources to improve the life quality of society.

The mission of LLU is to ensure the “internationally competitive intellectual potential, based on excellence in research, application of research results in the national economy, high quality of studies and efficient management of the University” (SAR, p. 21). To achieve that University has set the following goals: “to achieve excellence in research specialisation areas; to promote fundamental and applied research, application of research results in the national economy; to provide high-quality study and lifelong learning services; to ensure effective management of the University (SAR, p. 21). To reach these goals, three action programmes have been developed and included in the LLU development strategy aiming to achieve these goals: research programme; education programme; management improvement program (SAR, p. 21).

LLU medium-term objectives are subordinated to the vision, the mission and the long-term goals and are as follows (SAR, p. 6): 1. Excellence in research. 2. Application of research results in the national economy (research results are understood to mean the university's knowledge, technology and innovation accumulated and generated). 3. Integration of studies and research. 4. Internationalisation of studies and lifelong education. 5. High quality and competitive studies that meet the current demand. 6. Diversified supply of lifelong education that meets the current demand. 7. Effective university management at all levels.

LLU has submitted 8 study programmes in the SF “Architecture and Construction” for assessment:

- professional Bachelor's study programme Land Management and Surveying, 42581,
- first level professional higher education programme Civil engineering, 41582,
- professional Bachelor's study programme Civil Engineering, 42582,
- professional Master's study programme Civil Engineering, 47582,
- doctoral study programme Civil Engineering, 47582,
- academic Bachelor's study programme Landscape Architecture and Planning, 43581,
- professional Master's study programme Landscape Architecture and Planning, 47581,
- doctoral study programme Landscape Architecture, 51581.

The SF implemented by LLU is significant in the development of the national economy. It includes specialties and areas that are responsible for sustainable land management and planning, and environmental development and construction, including the use of local natural resources. Thus, the SF is related to various international and local strategies and is important as part of the LLU vision – ensuring the quality of the living environment and space, sustainable management and use of natural resources, spatial planning, and smart development.

In Latvia (as of 2021), the study field (SF) Architecture and Construction is represented by 38 accredited study programmes in 7 higher education institutions – LLU is one of them. SF includes sub-fields of land management, landscape architecture and planning and civil engineering, which in turn cover several levels of higher education study programmes – the first level professional higher education programme; professional and academic Bachelor's study programmes; professional and academic Master's study programmes, doctoral study programmes. Since 2013, LLU has implemented several activities to reduce the fragmentation of SP, improved programmes and licensed new programmes – and currently SF includes 8 programmes (another one was closed in

LLU comprises eight faculties – the SF is implemented through the Faculty of Environment and Civil Engineering, VBF (established in 1947). VBF has significant experience in implementing the subfields of the SF, e.g. the beginnings of the professional higher education Bachelor's study programme “Land Management and Surveying” dates back to 1947. As stated in SAR (p. 19), the civil engineering subfield has more than 60 years of experience in civil engineering education, initially developed as a field of agriculture and rural construction. The landscape architecture at LLU was implemented starting from 1994. The goals set for the SF conform (SAR, p. 21-22) to common goals and action programmes set out in the LLU development strategy – to provide high-quality studies and further education opportunities, ensuring the recognition and competitiveness; to promote the integration of studies and research, the transfer of innovation; to promote the internationalisation and international recognition, to develop the Baltic-wide landscape architecture study and science center, GIS Competence Centre and scientific laboratory in the VBF study building, to strengthen cooperation in studies and research with foreign higher education institutions; to ensure the quality of studies and research environment, student-oriented management of the SF. Sustainability, adaptation to the changing technologies and current developments in the field and competitiveness are put forward as the main drives for future development of the SF – as widely and in details described in Development plan for the SF – SAR, Appendix 1.

As the main positive aspects Experts point out the following:

1. The SF implemented by LLU is important in the overall context of the national economy, as it includes specialties and areas that are responsible for both sustainable land management and planning and environmental development and construction.
2. Well established institution, with unique study programs relevant to the national economy and current trends SP within the SF for LLU is a unique selling point, especially, landscape architecture and planning and land management and surveying.
3. The staff motivation system is established and well received among academic and scientific staff. LLU also has established and will develop an internal grants system for doctoral students.
4. Overall the level of English language with the SF is raised during the reporting period.
5. High-level facilities, particularly for programs of Landscape architecture.
6. Well-developed technical infrastructure, equipment, digital technologies, etc. – they are suitable and good enough for the basic knowledge, however, there are always possibilities for development and improvement.
7. Well-developed Fundamental library and premises, good access to various databases and online accessibility also from outside of the campus.
8. Well established collaboration with external stakeholders, however, it is not evenly distributed between the programs.
9. Very energetic and attractive new generation of academic staff is coming into university – PhD students want to relate their future career with the university.
10. SF has opportunities for development, for example, to offer life-long learning courses for established professionals and adults, develop outside labs for practical training, develop new study programs within the SF, for instance, Landscape management.
11. Good job opportunities for graduates and profitable opportunities for traineeship for students.

As the main negative aspects Experts can point out the following:

1. The unexploited opportunity of “uniqueness” for study programs included in SF.
2. There is a need to promote the particular professions and increase the prestige of the profession, e.g. Land management and surveying, involving the public and private sector and allocating resources for more visibility of the program.

3. Fair level of incoming and outgoing mobility.
4. Study programs (especially those which are provided in English) are not exploited to their full capacity.
5. A number of PhD students is low and is related to insufficient scholarships and reward leading to low motivation to study and complete PhD.
6. Generally it is so in the whole education field – insufficient financing for academic staff, scientific research, PhDs.
7. Insufficient cross-disciplinary cooperation on all levels for different fields, faculties, and study programs.
8. Significant student dropout.
9. On-site (on-campus) for practical training during studies is not developed yet.
10. Overall unsatisfactory current condition of VBF faculty building.
11. Unused potential to develop joint programs.
12. Experts notice inconsistent use of the name of the SF (SAR, p. 18). Instead of “Architecture and Civil Engineering” – “Architecture and Construction” must be used.

1. Management of the Study Field

Analysis

1.1. Experts can verify that SF Architecture and Construction implemented by LLU is important in the overall development of the Latvian economy, as it includes specialties and areas that are connected with sustainable land management and planning, and environmental development and construction, including the use of local natural resources. SD implemented also clearly coincides with international strategies and global agendas. Thematic areas of SD are also in line with locally important sectoral documents (SAR, p. 17). The interface of LLU strategic development meets the development trends of the society and national economy and is formed in 5 main research and study blocks:

1. Sustainable civil engineering, development of new, innovative building materials and research of their properties;
2. Safety and long-term operation of building structures;
3. Remote sensing, geodesy and geospatial research;
4. Research and development of urban and rural landscape;
5. Land and real estate management research.

LLU is one of 7 HEI's implementing SF Architecture and Construction with corresponding study programmes. LLU precisely acknowledge that the fields represented via SF (landscape architecture, land management and rural construction (agricultural buildings, development of construction materials and construction from local natural resources (wood, hemp, gypsum), hydraulic engineering) are unique in the Latvian context, which means that specialists in these fields are trained only at LLU. But as experts note, it should also be promoted in a way to attract interest and future students.

The SF and the relevant SPs comply with the main fields of the strategic development of LLU. The goals of the SF are based on the 1) goals and three action programmes (education, research, administration) specified in the LLU development strategy for 2015-2022 2) the shortcomings identified in the international evaluation of SD, 3) general tendencies of higher education development and branches in Latvia and Europe; 4) social and economic development needs and development trends (SAR, p. 21). The aim of the SF is clear, attainable and well integrated into the international and national strategies (see SAR part II, p.1.1) and internal goals of HEI (see SAR, p. 21):

- to provide high-quality studies and further education opportunities
- ensuring the recognition and competitiveness
- to promote the integration of studies and research, the transfer of innovation into
- the national economy, the scientific succession
- to promote the internationalisation and international recognition
- to ensure the quality of studies and research environment, student-oriented management of the study direction

The goals set for the SF closely coincide with the common goals and action programmes set out in the LLU development strategy.

According to HEI, sustainability, adaptation to the changing technologies and current developments in the field and competitiveness are put forward as the main drives of the development of SF. These principles are emphasized in the LLU development strategy and correspond to the general development trends in the field of education in Latvia and Europe. The main directions of further activities of SF are: implementation of the study process, scientific activity and innovation transfer, improvement of management, including also improving the social environment, communication between academic staff, other faculty members, students and management. Additionally, SWOT analysis carried out in SAR (p. 24) shows that LLU has identified how to improve weaknesses, prevent threats, and avail themselves of the given opportunities, etc. in regard to the aims set.

SAR also provides a Development plan for the SF Architecture and Construction (SAR, Appendix 1) that shows that LLU has a concrete plan with a timeline until 2026. Plan outlines needed activities, relations between targets, responsible party, key institution, or positions within faculty.

1.2. LLU has developed clear and perceptible management structure (SAR, Annex 2 on LLU Management Structure) and setup for key institutions that are involved in taking strategic decisions: The Council (240 members) comprising academic staff, students and personnel is a supreme collegial representation, management and decision-making body with a particular set of responsibilities (SAR, p. 12). The Council operates in accordance with its Statutes - <https://www.llu.lv/lv/konvents>

The Senate (60 senators) operates according to statutes and “is a collegial management and decision-making body of the personnel of LLU, which approves the rules and regulations that govern all the spheres of LLU activity” and functions according to with statutes - <https://www.llu.lv/lv/senats>. Regulations, decisions, and procedures in relation to the matters pertaining to the basic activity of LLU are also passed by other top management positions: 1. Rector, 2. Vice-Rectors for studies and science; 3. Chancellor; 4. Director; 5. Deans of the Faculties.

LLU has determined and implements the procedures of circulation of main internal documents (SAR, Annex 1 – List of main internal documents of LLU).

According to SAR, the management of SF consists of several levels: (1) the general management, administrative and support level of the LLU; (2) the strategic level of the study direction; (3) the action level of the study direction. SAR shows that LLU has clearly determined the responsibilities (directly responsible or supportive) of the structural units or leading staff involved in the implementation of the functions of each management level (SAR, Appendix 2, [2_appendix_study_direction_management_ENG.pdf](#)) – it shows level of management and main functions: directly responsible or supportive.

The strategic and action level of the SD is closely related to the study, science and management

processes at the VBF (Management structure of SD in the context of faculty – SAR, Appendix No.2). As written in SAR, the “dean forms a strategic link between the SD represented at the faculty and the strategic requirements for the overall development of LLU set by the LLU management, the involved services, the student self-government and the convention of advisers (industry representatives)” (SAR, p. 49). According to it, the implementation of the direction is monitored and development planning is mainly carried out by the Dean of VBF, head of the SF and directors of SP. Sar describes division of functions and responsibilities for all mentioned positions – e.g. the head of SF sees the mutual points of contact and interdisciplinary development opportunities, but more explicit solutions are the responsibility of SP directors. As far as experts observe, the structure of the management of the SF and the relevant study programmes is oriented towards the development of the SF. During the meetings, Experts face the necessity to advance the internal cooperation towards decision-taking with faculty and reduce bureaucracy with top management. As far as experts observe, the support provided by the administrative and technical staff contributes to meeting all needs of relevant SP. VBF and SF management (head, SP directors) are involved in joint working sessions, involving students' self-government and industry representatives.

Overall the vibrant social environment is mentioned as a strength by most respondents. It includes the close ties between LLU staff and field professionals, the students and LLU administrations and professorship, collaboration between the faculties and courses on the academic staff level.

1.3. LLU has a system and it implements procedures for the admission of students logically and visibly – regulations are approved by Senate and publicly available on the LLU website in LV and ENG – <https://www.llu.lv/lv/uznemsana>, <https://www.llu.lv/en/degree-programmes>. As confirmed by SAR, students are admitted on a competitive basis in accordance with the competition criteria set out in the admission rules. Admission rules are developed for each SP taking into consideration necessary criteria to study in a particular program. There are a special set of preconditions determined for admission of students outside competition (SAR, p. 51).

For foreign students, the additional requirement is English language skills at least at B2 level. Experts note that it must be considered to even out the requirements so that English knowledge is a requirement for all applicants.

The recognition of the previous study period, professional experience, and the previously acquired formal and non-formal education is established – LLU has approved regulations and procedures for starting studies in later stages and for the recognition of knowledge, skills and competences acquired outside formal education or professional experience. The procedure for recognition of knowledge, skills and competencies acquired in professional experience is organized in cooperation with the Lifelong Learning Center of LLU – (<https://www.mc.llu.lv/pakalpojumi/pieredzes-atzisana>, SAR, p. 52). LLU also implements academic recognition for previously acquired study courses (SAR, Appendix 10). VBF has cooperation agreements with Rezekne Higher School of Technologies, Riga Construction College, Vidzeme University College for an opportunity to recognize acquired study courses. It is also possible to continue the studies, assessing previously acquired study courses that correspond to the current SP plan.

According to SAR, LLU students evaluation criteria, conditions and procedures are described in the Study Regulations: <https://www.llu.lv/lv/studijas> / <https://www.llu.lv/en/study-guide-documents>. Evaluation of the achievements and learning outcomes of the students is established and these procedures are logical and efficient. Evaluation criteria is also explained in study course descriptions. Experts advise in future to avoid situations of subjective evaluations and encourage to develop forthcoming evaluation system, preconditions, exaggerate requirements of passing the course, e.g. to evaluate if it is possible to have 100% attendance in the course. It is very

commendable that for particular courses, several teachers are assigned to for the evaluations (e.g. LAP). Experts encourage also not only to give an evaluation as a grade but to provide elaborate feedback for students' work, especially, project-based assignments.

1.4. LLU has developed, implemented (from 2014 – use of the inter-university unified computerised plagiarism control system) and uses appropriate plagiarism detection tools in final theses, described by the staff and students as effective and contributing to the development of the internal culture of LLU. Initially from 2017/2018 LLU determined that the obligatory examination of plagiarism must also be performed for doctoral theses. In the period from 2014 to 2019, 551 works were examined in the field of study Architecture and Construction, none of which was recognized as plagiarism (SAR, p. 54). In case suspicious work is found, the procedure provides for discussions with the author. In case the plagiarism is confirmed, the student is expelled from studies.

1.5. LLU has renewed and modernized the website – <https://www.llu.lv/lv> / <https://www.llu.lv/en>. It provides information for the applicants and the students and information is published in all languages in which the SPs are implemented. VBF also has a designated faculty website – <https://www.vbf.llu.lv/lv>. LLU also issues electronic booklets (pdf) for prospective students in LV and ENG. SAR (p. 55) also indicates the persons responsible for information posting.

LLU also provides sufficient information for foreign students. Although it may not be a defect, experts notice that information in LV and ENG sites are different. LLU website and faculty website provides also virtual tours for faculties. Additionally, from 2014 SD and SP activities are also present on social networks, however, experts encourage to expand the follower's number and enhance visibility.

By visiting the websites, experts notice that some links and routs are not active (foulty) and should be checked, e.g. <https://www.vbf.llu.lv/lv/studiju-un-reglamentejosie-dokumenti> – Ar studijām saistītie normatīvie dokumenti (<https://www.llu.lv/lv/studiju-un-reglamentejosie-dokumenti>). Constant update and check-up are needed on the regular basis.

Conclusions. Strengths and weaknesses

Experts verify that SF Architecture and Construction implemented by LLU is important in the overall development of the Latvian economy, as it includes specialties and areas that are connected with sustainable land management and planning, and environmental development and construction, including the use of local natural resources. LLU has developed a clear and perceptible management structure and setup for key institutions that are involved in taking strategic decisions. The strategic and action level of the SD is closely related to the study, science and management processes at the VBF.

LLU has a system and it implements procedures for the admission of students logically and visibly – regulations are approved by the Senate and publicly available on LLU website in LV and ENG. Admission rules are developed for each SP taking into consideration necessary criteria to study in a particular program – a special set of preconditions is determined.

The recognition of the previous study period, professional experience, and the previously acquired formal and non-formal education is established – LLU has approved regulations and procedures for starting studies in later stages and for the recognition of knowledge, skills and competences acquired outside formal education or professional experience. LLU also implements academic recognition for previously acquired study courses.

Evaluation of the achievements and learning outcomes of the students is established and these procedures are logical and efficient. Evaluation criteria is also explained in study course descriptions.

LLU has developed, implemented and uses appropriate plagiarism detection tools in final theses,

described by the staff and students as effective and contributing to the development of the internal culture of LLU.

LLU have renewed and modernised the website – <https://www.llu.lv/lv> / <https://www.llu.lv/en>. It provides information for the applicants and the students and information is published in all languages in which the SP are implemented. VBF also has a designated faculty website – <https://www.vbf.llu.lv/lv>.

Strengths:

1. Established and perceivable management structure with visible efficiency, which includes integrity aspects: international and national strategic integrity, interrelation of HEI internal strategy, and compliance with the main development trends and national economy.
2. Development of the SF is well supported by the structure of the SF management and also involves top management.
3. LLU has performed SWOT analysis in relevance to aims. The development plan for the SF is carried out in detailed and clear manner assigning responsibilities and giving terms for implementing the activities.
4. SF demonstrates the potential for a vibrant social environment and strong academic values like integrity, community and excellence, including anti-plagiarism measures;
5. Well-defined result-based admission and study assessment criteria, as well as clear, result-oriented quality assurance system and policy.
6. Well established virtual presence and unified image – website with easy-to-locate information on LV and ENG.

Weaknesses:

1. There is no clear evidence for the QA for the evaluation of the students' knowledge during exams in a form of oral presentation, which leaves space for the subjectivity of ranking. Experts also notice situations of subjective evaluations and encourage to develop of forthcoming evaluation system, preconditions, and exaggerate requirements of passing the course.
2. Experts face the necessity to advance the internal cooperation towards decision-taking with faculty and SF leadership and reduce bureaucracy with top management.
3. Admission requirements distinguish local and foreign students – English knowledge is a requirement for foreign applicants.
4. Information posted in LV and ENG sites differs. The number of followers on social media is quite low.
5. Some links and routes on the websites are not active (faulty) – constant updates and check-ups are needed on the regular basis, e.g. <https://www.vbf.llu.lv/lv/studiju-un-reglamentejosie-dokumenti> – Ar studijām saistītie normatīvie dokumenti (<https://www.llu.lv/lv/studiju-un-reglamentejosie-dokumenti>).

2. Efficiency of the Internal Quality Assurance System

Analysis

2.1. LLU is recognized and recertified by the “Investors in Excellence” standard obtained in 2016 and recertified in 2018. Standard describes itself as “a unique framework for improvement and assessment, providing any organisation with a roadmap to achieve high performance” and measures organisation's performance in the relevant fields.

LLU has developed a Quality Management System (QMS) description and assurance plan in Latvian (https://www.llu.lv/sites/default/files/2016-10/KV_cepure_4_1.pdf) and English (<https://www.llu.lv/sites/default/files/2020-08/Quality%20Assurance%20System.pdf>), and it is available publicly, although the English version could not be found on the website, but only using the

search engine.

The last version of the QMS was developed in 2016, there is no information found about when to expect the updated QMS. It consists of 10 parts:

1. Justification of the quality management system.
2. Principles of excellence.
3. LLU guidelines for implementation, maintenance and improvement of the Excellence Standard and basic principles of excellence – vision, mission, values and strategy
4. Quality management system policy.
5. Quality management system management model.
6. Document structure and hierarchy.
7. Process management and supervision.
8. Risk management and assessment methodology.
9. Management policy of human resources.
10. Quality management system assurance plan.

LLU has also defined 19 main processes, on which specific activities regarding QMS are taken – different plans, guidelines, and procedures are established in order to fulfill QMS needs. Those 19 processes are divided into 3 thematic groups: Management processes, Principal activity (understood as Study and research process), Support processes. QMS is developed for LLU as for the whole organisation with achievable, aims and objectives, but it is also relatable and binding for the SF (SAR, p. 57).

According to SAR and as evident during the meetings at HEI, internal quality assurance of SF is also performed in cooperation with various stakeholders, e.g. prospective students, graduates, employees involved SF, organisations and experts, employers, other HEIs, etc. (SAR, p. 63).

2.2. There are several formal ways, how stakeholders can get involved in the SF development and provide feedback, for example, after each study course students can fill the survey about the quality of the study course, the academic staff and overall process. During the meetings with teaching staff and students, it is clear that filling in surveys (after completion of study courses) is not mandatory and mostly don't show objective opinion from respondents. Often the unofficial ways and personal approach are used to gather opinions, because of the relatively small number of students and staff, close relationships between SD and SP leadership, employers, alumni – experts assume that it is done so because official surveys provide insufficient information. For instance, Academic staff also tend to use different tools, for example, approaching students individually, making small feedback surveys after each lecture in order to collect feedback regarding study process, quality and possible improvements.

Student representatives are involved in the Council of VBF in the LLU Study Council and LLU Senate. Overall students and other stakeholders (SAR, p. 63) are involved in the evaluation of SF quality – as mentioned before, the procedures of collecting the feedback and involvement of stakeholders is established although experts do not have justification to evaluate how impactful are the reviews from stakeholders.

Additionally, students can also submit their complaints anonymously, using the whistleblowing option on LLU website – <https://www.llu.lv/lv/trauksmes-celsana> (in Latvian).

2.3. LLU collects various data throughout different time periods: once a month (number of students by study programme, types and forms of studies, SFs and faculties; fulfillment of state-funded study places), once every academic year (number of graduates by study programme, SFs and faculties, types of financing; admission results in different cross-sections), once every year (summary of statistics by SF - number of students by study programme, types and forms of studies, graduates, dropouts and reasons for termination of studies, statistics of foreign students; fulfillment of state-funded study places by year).

All of the relevant data is analysed by the management staff of the SF, LLU, responsible Ministry in order to improve performance and develop annual reports and plans.

LLU acknowledges that information management (collection, analysis and use of the information for effective programme management and other activities) could be improved, especially ensuring sufficient number of respondents (Table 1, p. 72).

2.4. The standards included in Part 1 of the ESG are integrated in the implementation of the SF, explained in detail in SAR (Table 1, p. 68):

Quality assurance policy – LLU has developed a document “QMS description and plan”. The next step is to develop an explanation of key processes in an easy-to-understand and simplified format that would allow for more effective implementation of quality assurance processes at all levels, up to the individual employee or student.

Programme development and approval – LLU has established procedures for the development and approval of programmes (available here: <https://www.llu.lv/lv/ar-studijam-saistitie-dokumenti>).

Student-centred learning, teaching and assessment – LLU uses student-centred approach by: individual approach, organising practical work in relatively small groups; diverse approaches to training and providing feedback on the assessments; opportunities for students to provide proposals for the improvement of the study process and study environment in regular communication with the management staff of the SF.

Student matriculation, study process, recognition and certification of qualifications – LLU has developed a website, where the information is published. Information about every study programme with different descriptors is publicly available and understandable.

Academic staff members – LLU has developed a bonus system for the academic staff (which takes into account staff's involvement and performance in different activities) in order to motivate academic staff to improve their performance; LLU has publicly available information, e.g. on the website (https://www.llu.lv/en/darba_piedavajumi/view_work), about available vacancies in the LLU, however, management, SF and SP directors often also use personal approach and contacts by informing / inviting possible candidates.

Learning resources and student support – LLU states that study resources are largely based on the attracted funding from EU funds or other programmes, and industry support, so in recent years LLU and the SF have attracted funding and other technical improvements from ERDF projects and Latvian-Lithuanian cross-border cooperation project; LLU has developed its library and other technical equipment, and students have a possibility to get different scholarships, involve in the Students' Council etc.

Information management – LLU collects data about the study process in several ways and uses data to improve the study quality, for example, dropout numbers and most common reasons are collected, the study programme is analysed and the improvements made. Although the feedback about study quality, process and academic staff should be improved – there is a survey after each study course, but the number of respondents is too low to have an objective conclusion about processes.

Public information – LLU and VBF have a website (LV and ENG) with the most important information, also some social media platforms are used to communicate with the society and promote programs within SF, for example, LLU has its account on Instagram (<https://www.instagram.com/lluniversitate/>), as well as the Student's Council of LLU (https://www.instagram.com/llu_sp/) and VBF (<https://www.instagram.com/vbfsp/>). LLU also communicates

Inspection and regular review of programmes – LLU states that programmes in the SF are regularly reviewed and the feedback from the stakeholders is implemented, although Experts could not identify that there is a system on how SF informs the stakeholders about the possibility to get involved.

In order to improve the performance of the SP included in SF, LLU has analysed the situation accordingly – subordinated to the strategic goals of SF, the goals of the SP and the results to be achieved are targeted on the training young specialists – well informed about current issues and interested and proactive in promoting their professional field and in developing prestige their Alma mater.

Conclusions. Strengths and weaknesses

LLU has developed a Quality Management System (QMS) description and assurance plan and overall it is implemented in managing, assessing and developing the SF and respective SP. There are several formal ways, how stakeholders can get involved in the SF development and provide feedback. LLU collects various data throughout different time periods and relevant data is analysed by the management of the SF, LLU, responsible Ministry in order to improve performance and develop annual reports and plans.

Strengths:

1. LLU is recognized and recertified by the “Investors in Excellence” standard obtained in 2016 and recertified in 2018.
2. Student-centred approach is used in implementing and developing the SF – among formal quality control, management / staff uses a personal, informal and friendly approach to the students in order to improve the study process, collect feedback and maintain a positive environment in the SF.

Weaknesses:

1. The feedback about study quality, process and academic staff should be improved in terms of a number of respondents / valid answers – there is a survey after each study course, but the number of respondents is too low to have an objective conclusion about processes.
2. Information management (collection, analysis and use of the information for effective programme management and other activities) needs to be improved, managing complexity of involved parties and structure – digitalisation can be helpful.
3. Lack of explanation in an easy-to-understand manner and visual graphics for “QMS description and plan”.

3. Resources and Provision of the Study Field

Analysis

3.1. The total funding (SAR, p. 74) for SF consists of 1) State funding, 2) VBF's own funding (tuition fees and other income, such as rent for premises, research or study services, etc.), 3) scientific base funding granted to VBF according to the intensity and quality of research work. HEI has determined the base cost (1630.11 EUR) of one study place, which further is influenced by the coefficient of the particular study level, social security and cost coefficient for a particular area. LLU has determined the cost per student for each programme in the SF (SAR, Table 2, p. 74-75), indicating tuition fee for LV and foreign students. The tuition fee is reviewed every year according to the economic situation in Latvia and approved by the order of the Rector. For instance, the student survey “Evaluation of Civil engineering Study Programmes” shows that the study fee for LV students sometimes is a reason to choose LLU instead of Riga Technical university (SAR, p. 198). According to LLU management (meeting with vice-rector for studies), HEI has recognised that for foreign students the fee to study, for instance, Landscape architecture and planning in LLU, is also more affordable if compared with other EU countries.

LLU has a system and orderly procedure on the distribution of revenues and expenditures of the overall budget. The distribution of the budget is reviewed and discussed within the Working Group

on Resource Use and Development (SAR, p. 75). The group also involves deans of all faculties. The further % distribution of income and expenses are described in SAR, p. 75. From SAR: "The amount of funding for the scientific base is calculated and allocated annually from the active research activities. Science base funding in the amount of 50% is at the direct disposal of the faculty and 50% is used to cover centralised costs. Research funding consists of funding attracted for the implementation of projects. The remaining funding from tuition fees and other paid income, as well as the scientific base funding allocated to the faculty is used for the implementation of research activities, including publicity of research results in conferences and scientific journals, as well as for creative and other activities (e.g. student plein airs, thematic schools for prospective students, etc.)." Interviewees brought out that for instance doctoral students are overloaded with work in the university (they do the lectures if they want to get adequate salary) or outside of the university and it is connected with funding possibilities. The salaries outside of university are higher than in university and it is a problem as well (it is highly critical in Civil engineering).

3.2. The programmes of SF "Architecture and Construction" are implemented by VBF and its constituent facilities. Additionally, centralised resources of LLU and other faculties are also used for the needs and classes of the SF During the on-site meeting, Experts were introduced with both main facilities – main building of VBF (Civil Engineering; Land Management and Surveying sub-directions) and the Valdeka Castle study building (Landscape Architecture and Planning).

LLU has identified and listed study and scientific laboratories, computer classrooms and other infrastructure used in the implementation of the programmes of the SF (SAR, Table 3, p. 77). They are available for the SF programmes to ensure the successful studying activities.

The students and the teaching staff have access to the necessary resources, e.g. Fundamental Library and its e-resources are available also for distant learning. For specific research, researchers and doctoral students have access to scientific laboratories and equipment also in other structural units of LLU, by prior agreement. Information on available scientific equipment at LLU is compiled in a database and is available at <https://www.llu.lv/lv/zinatniska-inventara-datubaze>.

In the recent period the facilities, classrooms, auditoriums and labs, material and technical provision, equipment (e.g. digital infrastructure), accessibility has been significantly improved. Appreciating these inputs, the Experts also must note that overall the current condition of the main building of VBF do not correspond to contemporary energy efficiency requirements, modern and representative spatial aesthetics – the building is obsolete and requires significant improvements not only in the condition of the premises but also in the visual outlook (graphics) and overall image of the faculty. Although HEI infrastructure is being used in cooperation with industry, training, etc. it is also noted that overall the capacity of premises is underused and careful evaluation of rational use of space would be commendable. Experts support and encourage LLU plans for the further development of outdoor labs in all sub-fields, thus being able to strengthen the practice potential.

During the tour, Experts observed well equipped computer classrooms and auditoriums with frontal screens. Special labs, testing labs (SAR, p. 77) are well equipped as well – calibration and checkup of geodetic tools takes place at least once a year. Air quality was medium – natural ventilation is ensured by opening windows. Experts meetings with students reveal that there could be better accessibility to rooms to individual work after courses – better suited working hours for availability also later in the evening; information centres could have better access through the responsible person (not programme director). Students can also use the Students' council room for relaxation.

Although SAR describes formal LLU procedures on Provision and maintenance of infrastructure (SAR, p. 61) experts have doubts that there is a common awareness among staff about system and procedures for the improvement and purchase of the material, technical, methodological, and informative provision. At the same time academic staff during the meetings approve that they are welcome to express their needs for new software and hardware, and it must be done in a timely

manner, because it takes time to realise that but there usually are financial resources to buy new equipment etc.

3.3. LLU has developed the system of attracting and employing the teaching staff – it is administered by the regulations approved by the Senate of the LLU (SAR, p. 83). The selection, requirements and election of the faculty is specified in the Regulations of the academic positions of the LLU (https://www.llu.lv/sites/default/files/2021-06/Akad_amati_2021.pdf) – occupation of an academic position at LLU takes place in accordance with the procedure of an open call and competition.

As observed by Experts (in the meetings with HEI management, teaching staff, SF director, programme directors), attracting highly skilled teaching staff (for the SF and the relevant study programmes) is often troubled by current conditions of insufficient remuneration of academic personnel – as a result academics and highly skilled professionals depart and rather choose private or public sector for better paid job positions.

Teaching staff often combine professional practice with teaching meaning that teaching is compromised and may suffer because of practice priorities, and overall exceeded capacity of the individual. LLU data shows the following: “(..) almost all academic staff members also participate in the implementation of other study programmes, carry out research work or work in the field of lifelong learning. Some academic staff members also work as professionals in the field or perform administrative work at LLU” (SAR, p. 86). Almost half of the teaching staff also work at LLU as scientific staff – performing research projects and contract work for companies (SAR, p. 86). Experts must note that for above mentioned reasons the academic, research (or professional practice) workload of the teaching staff is rather not balanced. They are overloaded with teaching and class preparation – they lack time for scientific work. Academic staff also note that there are very few Erasmus / foreign students but for teachers it is additional extra work (disproportionate task in preparing extra courses in English) since they are not integrated with local students but English spoken classes are organised.

The needs of the teaching staff for professional improvement are encouraged and supported from LLU. The constant improvement is ensured by appropriate professional development programs and the exchange of experience and participation in conferences and seminars. The academic staff of the SF have the opportunity for professional improvement through various activities (funded by various projects or by VBF). According to SAR, on average, each year, professional development is implemented by about 25-48 persons – professional development courses and seminars with training (on average 40 different professional development courses per year); conferences and seminars – as listeners (average 20 conferences / seminars per year); international exhibitions – as visitors (on average 3 exhibitions per year); maintaining professional certificates (11 practice certificates are maintained – architect, landscape architect practice certificates, construction practice certificates in various fields) internship in companies ESF project no. 8.2.2.0/18/A/014 “Development of academic staff” (11 people in 4 companies).

The opportunity for professional development from the side of academic staff is valued and adds quality to teaching courses (improving knowledge of newest technologies in cooperation with industry companies), courses related to digital skills (BIM, BIS). Teaching staff also have the opportunity to improve English skills. As multiple times heard from HEI's management and academic staff, in order to motivate the teaching staff to improve their qualifications regularly, in recent years LLU has developed a motivation system, which envisages annual evaluation of the activities, including professional development and granting a motivation bonus based on this evaluation (SAR, p. 85). Academic staff approves that introduction of such a motivation system is very crucial and stimulates them to improve their qualification.

Experts note that the frequency of foreign visiting professors of lecturers is rather active (SAR, p. 90), however, as it is understood, foreign personnel are mostly engaged for particular lectures, not study courses. The foreign staff presence is ensured within VBF funding and also through incoming mobilities (various mobility programmes, grants). In order to raise the quality of studies and international recognition it is still needed to increase engagement of permanent foreign teaching staff that cover full study courses, allocating funds and taking other necessary actions.

The teaching staff members of SF take part in outgoing mobility – the statistics are available in SAR, Appendix No.13. The activity and mobility statistics before Covid-19 worldwide restrictions were improving and increasing. The greatest challenge is the planning of mobility activities, as most members of academic staff (including foreign ones) are heavily loaded with everyday academic and scientific work. From meetings with academic staff it can be concluded that although the opportunity to go abroad for teaching or experience exchange is provided, personnel should be stimulated to use these opportunities.

3.4. LLU has identified (SAR, p. 90) the support provided to full-time, part-time and foreign students in several areas – 1) study process, 2) career and psychological support, 3) financial support, e.g. discounts and scholarships, and also 4) support with information.

In case of problems students confirm (in the meeting) that they can approach the study programme director personally (also higher administration, although it is hard to believe that you might want to discuss your issues with the vice-dean). Students also have the opportunity and the right to submit complaints about the study process and related matters in writing or orally to the curator – a special position established by HEI.

Lecturers are available for students for contact not only during classes, but also through the e-study platform and by email. During the meetings, Experts learned that communication is also organised through WhatsApp, creating course groups. Although it is instant and fast, such informal WhatsApp conversations outside teacher's working hours would not be recommended practice. Students approve that e-studies is a good platform but should be more used by teachers as it is a good platform also for communication. Academic staff notes that students should be better informed and encouraged to use e-studies. On the other hand – students would like that teachers use e-studies more as well – currently some send e-mail, some put in the e-platform.

Students confirm that there is no issue in finding a practice place or job because already at the university there are good contacts provided with potential employers.

Study premises are equipped and suitable also for students with special needs (e.g. elevators). Experts can approve and have witnessed that in both faculty buildings accessibility is ensured.

Students of SF can apply and compete for 12 various scholarships – most for bachelor's level studies. There are also tuition fee discounts provided for particular categories, e.g. for people with first and second degree disability. The information about scholarships can be easily found on LLU website: <https://www.llu.lv/stipendijas>: amount, target, application deadline, regulations and other relevant information is provided. LLU founded the Development fund (<https://www.llu.lv/lv/attistibas-fonds>) – a foundation that implements scholarship programs for students, faculty and outstanding scientists from the donated funds and was founded by the Senate of LLU in 2008.

Newcoming students appreciate orientation at the beginning of their studies “Introduction to the speciality” and “buddy” system, also leaflet for first-year students that is available online (<https://www.vbf.llu.lv/lv/raksts/2016-11-29/ieskaties-pirmkursnieka-celvedi>).

Regarding information circulation – students point out that they may become confused because there are several websites and platforms they need to follow – it is confusing and as a result they might miss important information. Overall according to the interviews conducted with students, students from all programs were satisfied with the support received from LLU. Since the beginning of pandemic and e-studies, there has been an assistant to provide support with the e-study

environment. SAR states that LLU provides support also to students from abroad; Experts did not have the opportunity to make sure how efficient and successful that is. For instance, the LLU website is provided also in English and Experts have the common impression that the information provided is sufficient and understandable.

As part of the support system, Student Self-government (SSG) can also be mentioned. SSG is part of LLU management structure and is involved in SF development. It is an organization representing university students; it deals with important issues of academic, social, cultural and sports life, represents and defends students' opinions and rights in LLU, Latvian Students' Union, as well as other institutions and organizations at national and international level. SSG also organizes events, gains useful experience, improves their knowledge and skills, as well as has a great time with other students.

Conclusions. Strengths and weaknesses

LLU has a system and orderly procedure on the distribution of revenues and expenditures of the overall budget. The programmes of SF "Architecture and Construction" are implemented by VBF and its constituent facilities. LLU has identified and listed study and scientific laboratories, computer classrooms and other infrastructure used in the implementation of the programmes of the SF and they are available for the SF programmes to ensure the successful studying activities.

The students and the teaching staff have access to the necessary resources, e.g. Fundamental Library and its e-resources are available also for distant learning. For specific research, researchers and doctoral students have access to scientific laboratories and equipment also in other structural units of LLU. The auditoriums and computer classrooms shown to experts during the visit are well equipped. Study premises are equipped and suitable also for students with special needs (e.g. elevators).

LLU has developed the system of attracting and employing the teaching staff – the selection, requirements and election of the faculty is specified in the Regulations of the academic positions of the LLU.

The needs of the teaching staff for professional improvement are encouraged and supported from LLU. The constant improvement is ensured by appropriate professional development programs and the exchange of experience and participation in conferences and seminars. The academic staff of the SF have the opportunity for professional improvement through various activities. In order to motivate the teaching staff to improve their qualifications regularly, in recent years LLU has developed a motivation system.

Experts notice that the frequency of foreign visiting professors of lecturers is fair. The teaching staff members of SF take part both in outgoing mobility, however, there is a great challenge in planning mobility activities because of direct duties.

LLU has identified the support provided to full-time, part-time and foreign students in several areas – 1) study process, 2) career and psychological support, 3) financial support, e.g. discounts and scholarships, and also 4) support with information. In case of problems students confirm that they can also approach the study programme director personally or assigned curators. Student self-government is established as a body that represents student interests.

Lecturers are available for students for contact not only during classes, but also through the e-study platform and by email.

Students of SF can apply and compete for various scholarships. There are also tuition fee discounts provided for particular categories. Newcomer students appreciate orientation at the beginning of

their studies “Introduction to the speciality” and “buddy” system, also a leaflet for first-year students.

Strengths:

1. Well-established base funding.
2. Competitive tuition fee compared to similar programs in other Universities in Latvia and abroad.
3. LLU has developed the necessary infrastructure, resources and the material and technical provision that is required for the implementation of the SF – students and the teaching staff have access to the necessary resources.
4. Labs and equipment are unique and can be a “selling point” for university, study programs, and cooperations.
5. The academic staff of the SF has the opportunity for professional improvement and it is valued through the staff motivation system and adds quality to courses taught to students.
6. Study premises are equipped and suitable also for students with special needs.
7. LLU website is provided also in English – the information provided is sufficient and understandable.
8. Well established e-study environment, however, promotion of enduringly using Moodle e-study platform is needed.

Weaknesses:

1. Attracting highly skilled teaching staff is often troubled by current conditions of insufficient remuneration of academic personnel.
2. Science base funding is not sufficient (what is generally common to all universities in Latvia), and additional funding/grants need to be attracted for the implementation of more qualitative applied and fundamental research and creative work, various research activities.
3. SAR describes formal LLU procedures on Provision and maintenance of infrastructure, however, experts have doubts that there is a common awareness among staff about system and procedures for the improvement and purchase of the material, technical, methodological, and informative provision.
4. Compromised and low efficiency of study courses in English – disproportionate task in preparing extra courses in English.
5. Foreign students are not integrated with local students.
6. The academic and research workload of the teaching staff is rather not balanced – they feel overloaded with teaching and class preparation – there is not enough time for scientific work.
7. Low frequency of foreign visiting professors or lecturers for permanent positions engaged in delivering full study courses.
8. Current condition of the main building of VBF does not correspond to contemporary energy efficiency requirements, modern and representative spatial aesthetics – the building is obsolete and requires significant improvements.
9. Difficult accessibility to rooms to individual work after courses (CE programs).
10. Lack of outdoor training and practice labs – there are plans for the further development of outdoor labs in all sub-fields.
11. In order to go abroad academic staff needs need to be stimulated.
12. Although there are e-platform established, many informal communication tools/apps are used.

4. Scientific Research and Artistic Creation

Analysis

4.1. The scientific research in SF Architecture and Construction lay the basis with the development aims related to the common tendencies in the field in Latvia. It is relevant in several priority

research directions following the development strategy of LLU for 2015-2022 <https://www.llu.lv/index.php/en/mission-and-vision> (SAR, p.93).

Five research directions are implemented by the academic staff members of the SF Architecture and Construction that are in line with current international strategies, such as the European Green Deal, which is linked to Latvia's Sustainable Development Strategy and several initiatives based on the introduction of the circular economy in Latvia. The development strategy of the Latvian construction industry for 2017-2024 emphasises the digital competence of specialists, which marks the topicality of the research directions in the SF. Faculties are encouraged to participate in extramural scientific research and practice-oriented activities; for example, they have 24 Contract research projects with companies, municipalities and other institutions (see Appendix No.12.). Research topics of doctoral students are closely integrated into the research activities of the field. The need for high-quality scientific and academic staff in the SF is determined by international strategies and modern initiatives. Cooperation with local governments and entrepreneurs, providing an opportunity to conduct research relevant to the field within the framework of study courses and final theses. Collaboration with the industry for relevant research (within the framework of contract work), promoting the transfer of innovations into the national economy. After reading SAR and meeting staff, students, alumni and representatives of employers during the on-site meeting, Experts consider the scientific research directions relevant to the current and future SFs and market needs in Latvia and abroad.

4.2. The relation between scientific research and the study process is mentioned and prescribed in mission and LLU long-term goals within the LLU Development Strategy for 2015-2022. Still, there is no clearly defined way of monitoring and evaluating the achieved results and indicators. Study programmes continually update the content of their study courses to reflect current research findings, as also new study courses are introduced into the programme. Linking the scientific research of the SF Architecture and Construction with the study process is implemented through several activities. Although activities listed in SAR p. 95, are implemented there is room for improvement. Based on SAR and Appendix No.12. it is evident that students are not equally involved in different types of projects (e.g. discrepancy between International and State-funded projects, projects with companies, municipalities etc.). Increasing the number of foreign lecturers and strategy of attracting new academic staff members should be defined for every SF and not only for priority research fields LLU in total. LLU Development strategy, pp.10. Table with Indicators, the number of international guest lecturers is 25, but not specified by SFs, and it should be improved in the future (2022-2027) period. Scientific research and the outcomes thereof are integrated into the study process in the study programmes of all levels. LLU should define indicators and analyse the level of achieved scientific research outcomes at different SFs and study programmes periodically (e.g. every two academic years).

4.3. There are several activities implemented to ensure international cooperation in the field of scientific research. Main activities quoted in SAR are research project activities, joint scientific articles, supervision of doctoral theses, consulting, reviewing and participation in foreign doctoral Councils and organisation of international scientific conferences. Several international projects were implemented (Appendix No. 12.). There is cooperation with Innovation Circle Network Association (Norway) and the Norwegian University of Life Sciences, engaging foreign professors from Karlsruhe University of Applied Sciences, Germany, State Agrarian University of Kazakhstan, Swedish University of Agricultural Sciences and the Estonian University of Life Sciences. Experts gain an example of good practice cooperation in the field of scientific research in the project "Increasing the Capacity of Electronic Materials on Climate Change in Rural Areas", where the obtained findings were integrated within the framework of several study programmes because the project involved not only the academic staff members of the SF Architecture and Construction but also from other

faculties and structural units of LLU. The Experts also point to the need to establish cooperation with other Latvian and foreign higher education institutions and to be more active in research, linking it with the study process. During the reporting period, the staff involved in the SF was included in the preparation and publication of research results in scientific journals indexed in Scopus and WoS databases and on the organisation of international scientific conferences (SAR p.99.). Most SF staff members collaborate internationally in their research, all of them participate in international conferences. LLU is publishing Scientific journal "Landscape architecture and art" (indexed on Scopus and WoS since 2016, ISSN 2255-8640 (online), DOI: <https://doi.org/10.22616/j.landarchart>) two volumes per year, and foreign scientists are involved in the editorial board's work and make a valuable contribution to improving the quality of the journal and to international visibility.

4.4. LLU developed mechanisms for the involvement of the teaching staff in scientific research, providing motivation bonuses for academic staff members for research work activity (Appendix No. 9.). After reading SAR and meeting staff, it is evident that the Academic staff motivation system is valuable and has excellent potential to motivate. Still, at the same time (based on the staff meeting), some staff members are not completely satisfied with the motivating system. They do not feel fully motivated and consider to be insufficiently awarded for scientific research. There are a lot of activities that need to be done within working hours to achieve maximum points in accordance with Appendix No. 9. To be more efficient in motivating, Experts suggest collecting feedback and optionally revising points distribution and encouraging scientific contribution and especially the quality of scientific research work with more points and more criteria (now, there are only two in Criteria number 16, Appendix No. 9).

The part of the science base funding that remains at the disposal of VBF is used to support the academic staff in participation in international conferences and publication of scientific articles, development of research infrastructure, maintenance of scientific journals in the SF. During the reporting period, the number of EU-funded programme projects has increased. The academic staff members of the SF can successfully prepare project applications and apply for funding for their implementation. The total number of articles prepared and published by the academic staff of the SF is 861, including 484 scientific papers in SCOPUS / Web of Science databases (Appendix No. 5). The focus should be on the quality of publications, not quantity only. Experts panel recommends developing a set of additional criteria (formal mechanisms) to improve international recognition: WoS publications, PhD thesis written in English, increased grant capture (obtaining EU projects).

4.5. Academic staff members involve students of the SFs in research within the study courses, final thesis (Bachelor's, Master's and doctoral theses), in research in cooperation with companies, local governments and other stakeholders within the framework of research study courses, within the framework of creative plein airs, international summer schools and by participating in research and creative projects implemented by the academic staff of the SF. Students are welcomed and encouraged to publish their thesis results with their mentors. During the meeting with students, it was evident that students are aware of this opportunity and are actively involved. Only highly graded thesis works are promoted for further publishing as scientific articles together with the mentors. The results of students' research work are prepared as publications in Scientific-practical conferences of civil engineering students and Master's students, Conference "Student on the way to science", Scientific conference of landscape architecture students, Annual international scientific conference "Students on Their Way to Science. Based on SAR and meeting with academic staff, students and Alumni, the Experts' panel consider that the LLU has developed mechanisms to promote the involvement of the students in scientific research, and they are well-functioning and efficient.

4.6. LLU is aware of growing competition in the education market and the challenges of attracting

students and maintaining their interest in studies. It also has goodwill to establish innovative approaches connected with practice and work-based higher education. The SAR indicates the following forms of innovation: uniqueness and topicality of the thematic areas of the direction; attracting new students and maintaining the interest of the existing students to continue their studies; the development of information technologies in both the industry and education.

Conclusions. Strengths and weaknesses

LLU has established the directions of scientific research in the SF complying with the development aims of the LLU, and they are relevant to the SF and the relevant industry. Scientific outcomes are integrated into study courses. LLU has established good international cooperation in scientific and applied research within the SF “Architecture and Construction” and study programmes of Civil Engineering and Landscape Architecture and Planning; it is well organised and target-oriented. LLU has developed and established a mechanism for actively involving teaching staff and students in research activities, but there is room for improvement. Innovation of study process continuously developing at LLU, it continues to support and invest in the development of information technologies in both the industry and education. LLU should continue ensuring infrastructural, administrative and financial conditions to improve visibility and internationalisation and increase competitiveness at the national and international levels. It would be valuable to involve more students in all types of research projects at LLU and continue the excellent practice of student involvement in scientific conferences. LLU is encouraged to strengthen cooperation with other Latvian scientific institutions and look for collaboration opportunities in interdisciplinary research. There is a lack of dissertations in English, and LLU should encourage supervisors and PhD students to write publication-based dissertations in English.

Strengths:

1. Uniqueness and topicality of the thematic areas of the research directions connected to SF;
2. International cooperation in scientific and applied research within the SF “Architecture and Construction” and study programmes of Civil Engineering and Landscape Architecture;
3. Developed research infrastructure and available resources, including publication of scientific journal;
4. Strong supportive mechanism is developed at LLU to motivate faculty and students to be actively involved in research (providing motivation bonuses for academic staff members for research work activity, Appendix No. 9.);
5. Research cooperation with the industry.

Weaknesses:

1. Low quality of publications (low number of publications in SCOPUS/WoS, publications with low IF);
2. Lack of feedback regarding the efficiency of “Academic staff motivation system”;
3. Lack of international visibility.

5. Cooperation and Internationalisation

Analysis

5.1. In the previous evaluation of the SF, Experts recommended establishing cooperation with other Latvian and foreign higher education institutions and to be more active in research, linking it with the study process. Based on SAR of the SF “Architecture and Construction” of LLU – cooperation with Latvian higher education institutions has been strengthened. For example, cooperation with RTU, RISEBA, a joint LLU and RTU professors' council in the field of architecture, participation on VBF lecturers in the final thesis commission at Riga Construction College, cooperation with Latvian

municipalities and companies in the development and implementation of international project applications, organising conferences, reviewing scientific publication and etc.

Several parties approved the fact that LLU has established good connections with local associations on the site visit. For example, Employees were satisfied with the way the university collaborates and involves them into the study processes.

In addition, the price worth fact was pointed out that the cooperation partners from the industry are selected in a view of the specific features and are in line with the goals of the SF. However, after several interviews with the students, it was an impression that students are not very much aware of the activities, which are being done with regard to collaboration with business/industry representatives. One of the recommendations, in order to involve students in more active contact with business representatives, could be – proactively promoting and implementing visiting lectures from industry/businesses. In addition, the positive fact, that employees and graduates confirmed their motivation and readiness to give lectures for specific topics, which shows a good potential to broaden the collaboration spectrum.

5.2. The level of mobility in the study programmes remains low. During the reporting period, only 2 foreign students in undergraduate studies and 2 students in master's studies studied in three programmes of the SF, and only 1 PhD student in a study programme of Civil Engineering (SAR p. 116).

This is also being negatively stimulated with the fact that the system and procedures for attraction of the teaching staff and students from abroad don't work properly. Moreover – the implementation of study programmes in English has started relatively recently. Positive prognosis could be expected if LLU will implement their plans in order to have new study programmes in English. At the moment SF has English programmes but they are seemingly insufficient, only few students are studying and only local staff is involved in the study process.

Not very satisfactory is the situation with the outgoing mobility for teachers and students. One of the suggestions in order to encourage at least PhD students to go abroad could be to initiate an obligatory internship for PhD students (from 1 to 3 months).

5.3. LLU has a good system for the provision of traineeships and the organisation thereof, as most of the students are working from the early stage of their studies. As there is a lack of specialists in the field of architecture and construction, students are completely satisfied with the opportunities, which university, together with partners, gives them in order to have internships, and later to find a work in the related SF. HEI is also providing information on actual and relevant job offers on their website – https://www.llu.lv/lv/darba_piedavajumi/view_work.

5.4. Weak points are the development of the joint study programmes (which is not even being currently planned) and the selection of the partnering higher education institutions. This was also approved by talented PhD students who would prefer to collaborate and go for internships or to study in high-level universities abroad, unfortunately, they are not included in the list of collaborating foreign universities (<https://www.llu.lv/lv/erasmus-studejoso-mobilitate> – LLU partneraugstskolu saraksts).

Conclusions. Strengths and weaknesses

LLU collaborates and establishes a good relationship with local institutions from Latvia, which are selected in view of the SF's apparent characteristics, which basically contribute to the achievement of the aims and learning outcomes of the study programme direction. As a result, the Faculty has a good system for the provision of traineeship and the big collaborative potential of motivated employees and graduates. However, cooperation with international institutions needs to be

improved. Poor selection of "high-level" partnering institutions, no motivation/encouragement system for mobility, and no joint study programmes (e.g. for double degree) cause a low level of mobility (incoming and outgoing).

Strengths:

1. LLU has established good connection with local associations;
2. Partners from industry are selected in a view of the specific features;
3. Big collaborative potential of motivated employees and graduates;
4. Good system for the provision of traineeships.

Weaknesses:

1. Students are unaware of the collaboration activities with business/industry representatives, e.g. also visiting lectures.
2. The level of mobility in all programmes of SF remains low;
3. No development of the joint study programmes;
4. Poor selection of the partnering higher education institutions.

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

Analysis

In the last period several assessments by independent experts were done in 2012, 2014, and 2017.

1. In the academic year of 2011/2012, the LLU SF Architecture and Construction and its study programmes were assessed by international experts in the framework of the European Social Fund's Project "Evaluation of Higher Education Programmes and Suggestions for Quality Improvement", Agreement No.2011/0012/1DP/1.1.2.2.1/11/IPIA/ VIAA/001. 12 study programmes were evaluated.

There were 4 main recommendations:

1. The PhD programmes of Civil engineering and Water engineering should be merged into one integrated PhD study programme with one title.
2. The first level study programme in Land management should not be part of a university education. The core competencies of surveying are considered necessary and sustainable, but should be as an education programme situated on vocational or similar level.
3. Decreasing the average age of academic staff is vital for the sustainable development of LLU.
4. The Department of Land Management with the LLU has to improve in the fields of scientific research and cooperation.

Implementations:

1. PhD study programme Water Engineering is merged with study programme Environmental Engineering and included in different SF.
2. Since 2013, the first level study programme Land management study programme is discontinued.
3. Since 2013, 55 (51% of all academic staff) academic staff members under the age of 45 have been attracted to the SF, promoting generational change.
4. In the SAR (chapter 6) it is mentioned that actions in several projects are taken and new cooperations between HEIs and other institutions locally and internationally are established.

2. In 2014, the first level professional higher education study programme Civil engineering was licensed by experts.

There were 5 main recommendations:

1. Over time, develop study materials also in English and attract students who want to acquire the study programme in English language.

2. Evaluate opportunities for programme development in accordance with international professional standards.
3. Supplement the strategic goals of the study programme: to create an opportunity for working construction specialists with long-term practical experience and / or construction work management certificate to obtain a fourth level professional qualification.
4. Supplement the strategic tasks of the study programme: to provide working construction specialists with long-term practical experience and / or construction work management certificate the theoretical knowledge provided in the programme and to strengthen self-education skills.
5. Strengthen cooperation with vocational education institutions (VEI) and vocational education competence centres (VECC) in order to use the technical equipment of these educational institutions for the training of practical construction skills and to promote mutual cooperation in the training process.

Implementations:

1. The implementation is not planned because the programme is only part-time studies and is specifically adapted to the situation in Latvia.
2. The recommendations have been taken into account in the development of the programme development plan.
3. The goals are supplemented with the following: To create an opportunity for working construction specialists with long-term practical experience and / or construction work management certificate to obtain a fourth level professional qualification.
4. The tasks are supplemented with the following: To provide working construction specialists with long-term practical experience and / or construction work management certificate the theoretical knowledge provided in the programme and to strengthen self-education skills.
5. Strengthen cooperation with VEI and VECC in order to use the technical equipment of these educational institutions for the training of practical construction skills and to promote mutual cooperation in the training process.

3. In 2014, the professional Master's study programme Civil engineering was licensed by experts.

There were 5 main recommendations:

1. The list of publications presented is not exhaustive.
2. The active involvement of the academic staff members in private practice can affect the quality of the study process.
3. There are cases when the description of the study course does not indicate the literature sources.
4. Only 3-4 titles provides as literature sources
5. Suggestion and recommendation: to promote and support cooperation with RTU Faculty of Civil Engineering

Implementations:

1. Lists of publications by the academic staff members are recorded in annual self-assessment reports.
2. Supervision of the study process is provided centrally, including by evaluating the results of student surveys.
3. Descriptions of study courses are regularly updated.
4. Descriptions of study courses are regularly updated and supplemented.
5. Evaluate possible forms of cooperation and maintain cooperation in studies and research.
6. Cooperation is maintained by engaging visiting professors, participation of lecturers in final thesis evaluation commissions, etc.

4. In 2014, the professional Bachelor's study programme Land management and surveying was licensed by experts.

There were 4 main recommendations:

1. Academic staff members have a small number of scientific publications at the international level.
2. Infrastructure improvements and additions are needed for the qualitative implementation of the study process.
3. Improve the content of the programme in order to ensure its uniqueness in the Latvian context and prevent overlapping with the programmes implemented by the Riga Technical University.
4. Consider the possibility of implementing the programme in English and attracting foreign students.

Implementations:

1. LLU has developed support tools and motivation system for the promotion of research activities of the academic staff (LLU internal grants, support for participation in conferences, allowances for scientific activities).
2. Attracting the funding from the ERDF projects “Strengthening the research, development infrastructure and institutional capacity of LLU and scientific institutions under its supervision” and “Modernization of STEM study programmes”, cross-border cooperation projects and VBF funding has resulted in a high-quality study and research infrastructure.
3. Study programme has been improved, ensuring its uniqueness and compliance with the strategic specialisation of the LLU in bioeconomy.
4. A programme for implementation in English has been prepared.

5. In 2017, the academic Bachelor’s study programme Land architecture and planning was licensed by experts.

There were 6 main recommendations:

1. In order to better structure the study plan, it would be recommended to create study modules that would describe courses with common goals and achievable results and that combine purposefully selected study courses and provide a certain academic and / or professional orientation.
2. Special attention should be paid to some course titles, their compliance with the academic study programme should be reevaluated.
3. Create common criteria for study literature - volume, content, topicality. Availability of literature in English.
4. In the descriptions of integrated study courses, it would be recommended to indicate separately the theoretical and practical knowledge and competence skills to be acquired.
5. For study courses with a strong professional orientation - design, in the course content it would be recommended to indicate not only the skills and competencies in designing certain objects, but also strengthening of theoretical knowledge within the study course topics.
6. It is recommended to improve the editorial and content annotation of the study programme (meaning of certain terms).

Implementations:

1. Included in the submitted study programme.
2. Titles of the study courses have been specified.
3. Additional sources of information in the descriptions of study courses, including in English.
4. Descriptions of study courses have been specified.
5. Descriptions of study courses have been specified.
6. The annotation of the study programme has been specified.

6. In 2017, the professional Master’s study programme Landscape architecture and planning was licensed by experts.

There were 2 main recommendations:

1. Specify course titles, their links to course objectives and descriptions, and links to other subjects.
2. Specify in the course descriptions the set of theoretical and practical knowledge, skills and abilities, as well as indicate the connection between theoretical and practical study courses.

Implementations:

1. Course titles, objectives and content have been specified.
2. The connections between the theoretical and practical parts have been clarified.

Conclusions. Strengths and weaknesses

In the last period of 9 years, the SF all together or partially has been assessed 5 times. For each assessment, the recommendations and implementations were submitted to the Experts. Experts compliment the analysis of the recommendations by the SF and the summary of the necessary actions, that the recommendation was or will be carried out, and that the developed table with recommendations and regarding information is easily reviewed and evaluated. This could be improved by a column with the responsible person or department on the implementation of each recommendation.

Strengths:

1. Management staff has clearly defined tasks, deadlines and results to be achieved for each previous recommendation, which respectively leads to the implementation and improvement.

Weaknesses:

1. Several recommendations over the time and in separate assessments have been developed in the same disciplines (academic staff's English language knowledge or availability of English resources, increasing age of the academic staff), which shows that the core problems are not fully solved.
2. Implementation of fundamental change should be predecesed by in-depth research to evaluate the impact, the need and viability of such novelty, e.g. creating English study forms.

7. Assessment of the Requirements for the Study Field

- 1 R1 - Pursuant to Section 5, Paragraph 21 of the Law on Institutions of Higher Education, the higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study direction whilst implementing their internal quality assurance systems:

Assessment of compliance: Partially compliant

Overall LLU has developed Quality Management System with policy and procedures to ensure internal quality, uninterrupted development, and constant improvements of SF. The compliance is described in SAR, page 13. LLU has obtained an Investor in Excellence certificate issued in 2016. The Quality Assurance system is also available publicly online:

<https://www.llu.lv/sites/default/files/2020-08/Quality%20Assurance%20System.pdf>. There are mechanisms for developing SPs, their internal approval and the supervision of activities, and periodic inspection. There is also a 6-year development plan worked out for SF.

However, during the meetings and analysis, Experts notice and would like to point out two drawbacks: 1) lack of a system for awareness of initial signs of issues within the SF and such should be developed and 2) the feedback mechanism involving different stakeholders lacks significant impact due to the low number of respondents. The satisfaction of students with the SPs, the work effectiveness of academic staff, essential indicators of the activities of HEI must be compiled and analyzed based on extensive and sufficient data.

Additionally, HEI management must be cautious in generally overcomplicated procedures, excessive bureaucracy, instead ensuring efficient and targeted, visible and easily perceptible operations from all involved parties and stakeholders.

- 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

LLU Quality Management System description and assurance plan is developed.

- 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

Regulations for the Development, Approval and Change of Study Programmes at LLU are developed, which describes how to make changes (improvements) in the study programmes, but there is a blind spot in the system – how to be aware that changes must be implemented. System for awareness of initial signs of problems in the SF should be developed.

- 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 made public.

Assessment of compliance: Fully compliant

Regulations (including assessment procedures) of studies is developed and publicly available, e.g. https://www.llu.lv/sites/default/files/2021-05/Studiju_nolikums_2021.pdf un for PhD studies - https://www.llu.lv/sites/default/files/2016-05/Doktora_studiju_nolikums.pdf. The requirements for assessing students' learning outcomes for each particular course are given in the descriptions of course study programmes available in Latvian and English in the LLU IS course register at <https://lais.llu.lv/pls/pub/kursi.startup?l=1>.

- 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

LLU has developed internal orderly procedures to assure and monitor the quality of the academic staff. For example, there are the following approved by the Senate regulations: LLU Regulations on Academic Positions, The Regulation regarding the Calculation of Academic Workload, and The Motivation System for LLU Academic Staff. Classes are planned in an orderly manner and schedules are publicly available.

Although has provided students a possibility to express their feedback regarding academic staff's teaching, work quality, and study materials, stakeholder interviews and visit in the LLU shows that the mechanism lacks targeted system management and misses significant and purposeful impact due to the low number of respondents. The teaching staff itself can not receive adequate feedback in order to improve the quality of teaching and the overall study process.

- 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: Partially compliant

LLU collects information from students' surveys regarding study courses – e.g. SAR, p. 16. The feedback about study quality, process and academic staff should be improved in terms of number of respondents / valid answers – there is a survey after each study course, but the number of respondents is too low to have an objective conclusion about processes.

- 7 1.6. The higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study direction whilst implementing their quality assurance systems.

Assessment of compliance: Fully compliant

LLU has developed QMS overall, and Reports of the study directions are produced every year, reviewed by the Board of Studies and approved by the Senate.

SAR, p. 16: "Reports of the study directions are produced every year, reviewed by the Board of Studies and approved by the Senate. Once approved, the reports are made public on the LLU website.

- 8 R2 - The cooperation with different organisations from Latvia and abroad implemented within the study direction ensures the achievement of the aims of the study direction.

Assessment of compliance: Partially compliant

LLU has established good connections with local associations and partners from industry, and has a big collaborative potential of motivated employees and graduates. But from another hand the level of mobility in the study programmes remains low, and has a poor selection of partnering institutions from abroad.

- 9 R3 - Compliance of scientific research and artistic creation with the development level thereof (if applicable).

Assessment of compliance: Partially compliant

LLU has established the directions of scientific research in the SF complying with the development aims of the LLU, and they are relevant to the SF and the relevant industry. Scientific outcomes are integrated into study courses. LLU is encouraged to strengthen cooperation with other Latvian scientific institutions and look for collaboration opportunities in interdisciplinary research. There is a lack of dissertations in English, and there is a small number of high-quality publications.

- 10 R4 - Elimination of the shortcomings and deficiencies identified during the previous assessment of the study direction, if it has been conducted, or the implementation of the provided recommendations.

Assessment of compliance: Fully compliant

Most of the recommendations are implemented or reduced (rejected) objectively.

8. Recommendations for the Study Field

Short-term recommendations

Organise feedback from staff regarding the Academic staff motivation system once in two years to ensure that it is up to date and meets the expectations of staff, and motivates them to both – teaching, scientific research and professional growth. Involve academic staff to make improvements concerning the motivation system.

Improve feedback system (from students) so that the amount (quantity and quality) of feedback received is relevant (objective) and can be effectively used by improving the SD, SP and separate courses.

Ensure active promotion of activities, visiting lectures and cooperation with industry / business representatives raising students' awareness about the events and activities happening in LLU.

In order to be directly connected with students and receive valuable feedback, organise dean's / SF director's meetings with students once per study semester or study year. There are such examples from other universities and this more informal communication is very valued.

Considering current times (pandemic), experts suggest introducing elevated communication options, e.g. digital assistance/chat bot for local and international students, existing and potential students to solve the urgent questions and assist with information.

Improve understanding among staff about the overall QM system and also procedures for the improvement and purchase of the material, technical, methodological, and informative provision, etc.

Encourage the mobility of PhD students – an obligatory short-term mobilities/internships for PhD students (from several weeks up to 3 months).

To unify and to facilitate the use of the LLU elaborated Moodle e-tool by making it mandatory in staff/students communication while submitting and evaluating the learning outcomes. Diminish the use of informal communication apps.

Constant updates and check-ups are needed for websites on the regular basis to avoid missing links and faulty routes.

Make sure in self-assessments and reports to use consistently the title of SF – Architecture and Construction.

Long-term recommendations

VBF building and facilities requires update and renovation, in both – energy efficiency and respectable, contemporary outlook, especially in common areas. The building has a big potential to recruit the spaces, in order to ensure the efficient use of the premises.

Consider and develop the base to establish international joint study programmes in Landscape Architecture and Planning and Civil Engineering (especially, masters and doctoral studies).

Analyse opportunities and (by using various tools – videos, open days online, online open lectures) actively promote unique and highly demanded (in the industry) study programs at LLU internationally (and locally). Consider cooperating with industry companies to implement the long-term promotion.

The focus should be on the quality of publications, not quantity only. Overall, the quality of publications should be improved (increase number of publications in SCOPUS/WoS, publications with high IF). Experts recommend developing a set of additional criteria (formal mechanisms) to improve international recognition: WoS publications, PhD thesis written in English, increased grant capture (obtaining EU projects).

More active use of mobility opportunities should be promoted and supported. The international department should maintain more proactive actions targeting Western Europe, looking for cooperation agreements in Western, Northern Europe as well. Collect feedback from active researchers, PhD students on relevant destinations, universities.
Work on integration (meeting, co-studying, ...) of foreign students with local students.
In order to gain international visibility, exchange of knowledge and raise quality, attract more permanent foreign visiting professors / lecturers in the SF.
Continue and ensure raising the level of English knowledge for administrative and academic staff.
Strengthen collaboration between different SF and SP to ensure interdisciplinary approach in study process or research.
Ensure healthy composition of the teaching staff in terms of the generation change.
Constantly evaluate the workload balance for the academic and research staff, PhD students, provide generic or individual solutions to even out their workload.
More considerable initiative is needed from the Faculty management and the project management/development department to initiate the research project collaboration.
Although experts acknowledge it is overall a national problem, explore opportunities to raise base salaries for (administrative, academic, research) staff.
Ensure there is required minimum bureaucracy between faculty, SD leadership and administration, top management.

II. "Civil Engineering" ASSESSMENT

II. "Civil Engineering" ASSESSMENT

1. Indicators Describing the Study Programme

Analysis

1.1. The first level professional higher education study programme "Civil Engineering", implemented in the Latvian language, provides a professional Building Construction Manager qualification, without a degree acquired. The study programme ensures the training of Building Construction Managers of 4th level professional qualification (Appendix No.4) in accordance with the requirements of the labor market, who can perform complex work of a contractor, as well as organize and manage construction works in accordance with legislation.

The programme is developed in accordance with the European Qualifications Framework (EQF) level 5 knowledge, skills, and competence descriptions. It is a part time extramural studies with 3 years and 6 months duration. The title of the first level professional higher education study programme "Civil Engineering" reflects the construction industry's normative framework and multifaceted nature, which is included in the study programme plan in the form of study courses and topics. In the established the First level professional higher education study program "Civil Engineering" the studies have been started in the spring semester of the 2014/2015 study year, matriculating 28 students in the 1st year.

Updated professional qualification standard "Building Construction Manager" has been submitted for approval to the National Centre for Education of the Republic of Latvia and was approved on 11th August 2021. The implementation form of the study programme is specified to "Part time extramural

studies” because the implementation form “Part time intramural studies” indicated in the existing accreditation sheet of the SF has never been implemented by LLU in this study program. It is a technical mistake in the accreditation sheet and has not been corrected during the reporting period.

The study programme has been developed in compliance with the requirements of the Law on HEI and the Law on Vocational Education, the Regulations of the Professional Standard and the Regulations of the Cabinet of Ministers of the Republic of Latvia No. 141. from 20 March 2001 “Regulations on the Acquisition of State First Level Professional Higher Education”, which ensures the acquisition of the fourth level professional qualification (Appendix No. 3).

In the admission rules of the program, emphasis is placed on the assessments of mathematics and physics after graduating from high school. It leads to the selection of students with the ability to think exquisitely appropriate to the engineering direction. From the SAR and Appendix No. 1 significant decrease in the number of students is observed when moving from the first year to the second, also in the last year of studies. Students are offered the opportunity to transition from student status in the programme to listener status at the LLU Lifelong Learning Centre, which is actively used by some students.

The name of the first level professional higher education study programme "Civil Engineering", the qualification to be acquired, the aims, objectives, learning outcomes, and admission requirements are interrelated, defined, and included in study courses descriptions (Appendix No. 7). Mapping of the study courses for the achievement of the learning outcomes of the study programme is provided (Appendix No. 5), which enables experts to see precisely how specific learning outcomes of individual courses are connected with learning outcomes of the study programme and how they contribute to their achievement. Based on meetings and conversations with students and employers it can be concluded that connection with practice and companies is provided, e.g. cooperation with entrepreneurs, study tours visits to companies, factories, guest lecturers from industry and traineeship in the Latvian civil engineering organisations, design and construction supervision companies (SAR p.185).

Conclusions by specifying the strengths and weaknesses

Conclusions:

The first level professional higher education study programme “Civil Engineering” in Latvian is implemented by LLU in the SF Architecture and Construction. Graduates are granted a professional Building Construction Manager qualification. Admission requirements are clear, transparent and ensure the quality of the enrolled students. Studies in the specialty of civil engineering at LLU are practically oriented, providing competency-based education. Aims, objectives, learning outcomes, and admission requirements of the first level professional higher education study programme “Civil Engineering”, in general, are interrelated and comply with the SF Architecture and Construction. Studies in the specialty of civil engineering at LLU are practically oriented, providing competency-based education, because lecturers and doctoral students are closely connected with the practice, working in companies or performing research for entrepreneurs.

Strengths:

1. Admission rules ensure high quality of enrolled students;
2. Students have the opportunity to transfer from the first level professional higher education study programme "Civil Engineering" (part-time studies) to enter the LLU professional bachelor`s study programme "Civil Engineering" in the later stages and within 2 or 3 years, obtaining the qualification of a Building Civil Engineer.

Weaknesses:

1. The decrease in the number of students/number of dropouts.

2. The Content of Studies and Implementation Thereof

Analysis

2.1. Descriptions of study courses, the professional pre-diploma traineeship, and the students' qualification works are clear, available to students and faculty, and in general, comply with the provisions outlined in the regulatory enactments. The study content is relevant and complementary and it complies with the aims of the first level professional higher education study programme "Civil Engineering", ensures achievement of general learning outcomes, and meets the needs of the relevant industry. It should be highlighted that study content is up-to-date and follows the current tendencies in civil engineering. The topics of the students' qualification works reflect the current events in the field because all situations and projects "are real", related to certain customers and are developed as a variant of a project (SAR, Table 2). The best qualification works are marked in the reports of the Examination Commission. Upon receipt of the Diploma, the honorary diplomas from the Latvia Association of Civil Engineers (LBS) are also awarded to the best graduates, thus stimulating higher achievements. The best works are also published in the LBS magazine "Būvinženieris" and are awarded in competitions of industry professionals. In recent years, the topics of the qualification papers developed and defended by students have been the following: Production building and wood waste storage in Aloja region, Reconstruction of Marupe State Gymnasium stadium, Office building in Riga, Warehouse building in Babite, Sports centre in Jelgava, Hotel-hostel "Geleos", Multifunctional new building in Jurmala, Hotel new building in Jurmala, Multifunctional halls new building in Rezekne, Training Corps for Crafts and General Education secondary school in Dobeles. Experts suggest the focus should be on rural buildings and materials and it would be a good selling point and direction to develop.

An obligatory component of the first level professional higher education study programme Civil Engineering is professional pre-diploma traineeship outside the educational institution, in accordance with the Cabinet of Ministers of the Republic of Latvia Regulations No. 141 "Regulations on the first level professional higher education state standard" (20.03.2001) and LLU Traineeship Regulations (12.11.2014) (Appendix No. 9). The first level professional study programme Civil Engineering professional pre-diploma traineeship Building Management I and II is planned for part-time students – in the 6th semester (3rd year) – 20 CP (corresponding duration – 20 weeks). Taking into account that the majority of students in the programme are already working in the field, students also have the opportunity to equate their pre-diploma traineeships by proving their professional activity – by submitting the relevant certificates to the LLU Lifelong Learning Center.

2.2. The aim of the program is also to create an opportunity for working construction specialists with long-term practice and/or construction management certificate to obtain a fourth level professional qualification. In order to achieve the set goal, the study courses emphasise independent work and project-oriented studies. The methods of the study programme implementation are also based on the gradual and project-oriented acquisition of knowledge, skills and competencies. The content of the programme and study courses is in close relation with actualities in the field of construction. The content of the study courses are regularly updated in accordance with the needs of the construction industry and the labour market, as well as the latest scientific innovations, technologies and development trends. In order to provide practical bases for the theoretical knowledge of the students, the study process includes guest lectures from specialists working in various companies. Each study year, students listen to about ten guest lecturers on topics related to the study plan and theoretical study courses. For example (SAR p.192), sustainable building, BIM, building materials, technological processes in dairy farms and their constructive solutions, production technology and

application of reinforced concrete, steel structures, the energy efficiency of buildings, etc. Although ten guest lectures are organised per year, based on interviews with students, graduates, and employers, the experts believe that increasing the number of guest lectures is necessary. Additional efforts are needed to promote guest lectures among students.

Study course programmes are regularly reviewed and updated in accordance with the learning outcomes of the study programme. Students provide their assessment of the content of the study course and the lecturer's work at the end of each semester. However, after meeting with students and lecturers, it is evident that surveys for assessment of the content of study courses and lecturer's work are not obligatory, students rarely complete surveys.

The principles of student-centred education in the study programme are implemented. During the on-site visit, students have mentioned that they are aware of the procedures and principles of student-centred education, but they did not give examples of implementation. Students should be better informed about these principles.

2.3. The outcomes of the surveys conducted among the students, employers, and graduates are used to improve the quality of studies. During the meeting with academic/teaching staff it was concluded there are no surveys for lecturers (academic staff), and they do not have the opportunity to provide their assessment of the content of the study course and the students' work at the end of each semester. LLU has developed surveys and general feedback procedures for students, graduates, employers and PhD students. Exception is the lack of surveys for academic staff. Based on the meetings with the staff, students etc., surveys are conducted regularly but they are not mandatory and due to the small number of completed surveys there is the possibility that the results are not statistically relevant. Surveys and feedback should be defined as obligatory for all involved parties of the study process – students, staff, graduates, employers. Students and faculty confirmed that the surveys are regularly conducted and afterward taken into consideration, and necessary adjustments, if any, are made. Feedback from the employers in the sector Civil Engineering is usually compiled and analyzed by the study directors, which noted that the survey data is used to improve the study process and often results in adjustments of the studies. Based on the results of the survey, changes were made in the LLU professional first-level professional higher education study programme Civil Engineering (SAR p. 199).

2.4. As the first level professional higher education study programme Civil Engineering is implemented only in part-time studies, all students work in the specialty and combine studies with work. Consequently, there is no pronounced student mobility in this study programme. Students can participate in various study activities abroad within the practical work of the professional pre-diploma traineeship included in the programme plan, performed in cooperation with the LLU. An example of good practice in cooperation with The University of Trás-os-Montes e Alto Douro (UTAD) in Portugal and Wrocław University of Environmental and Life Sciences in Poland, the International Summer School of Building Engineering Students was organised (2019 in Latvia; 2018 in Portugal; in 2017 in Poland).

Conclusions by specifying the strengths and weaknesses

Descriptions of the study courses, professional pre-diploma traineeship and students' qualification works writing regulations are developed and available to students, and in general, comply with the provisions outlined in the regulatory enactments. The content of study courses is relevant and complementary. It complies with the aims of the first level professional higher education study programme "Civil Engineering", ensures the achievement of the general learning outcomes, and meets the needs of the relevant industry and the scientific trends. There is evidence of the implementation of student-centred learning and teaching. Ensured professional pre-diploma

traineeship, abroad students work opportunities, the revision of students complaints. Students, graduates, and employers confirmed that the surveys are conducted and afterwards taken into consideration, and necessary adjustments, if any, are made. Only a few surveys are conducted every academic year because they are not obligatory. During the meeting with the students, they were not aware of the guest lecturers. Employers and alumni are willing to give guest lectures (as they have told Experts at the on-site meeting). Experts consider that the number of guest lectures should be increased.

Strengths:

1. Up-to-date curriculum of the first level professional higher education study programme “Civil Engineering”;
2. Student-centred learning and teaching are broadly applied in study courses; students have the possibility to be involved in study process assessment;
3. Mandatory professional pre-diploma traineeship has enhanced the practical part of the first level professional higher education study programme “Civil Engineering”; network of LLU partners and Alumni ensure professional pre-diploma traineeship possibilities to the students of the programme domestic and abroad companies.

Weaknesses:

1. Lack of surveys for academic staff to provide their assessment of the content of the study course and the students’ work at the end of each semester;
2. Lack of obligatory surveys for all levels (students, staff, graduates, employers);
3. The insufficient amount of guest lectures (from professionals from industry).

3. Resources and Provision of the Study Programme

Analysis

3.1 The study provision, scientific support, informative provision (including libraries), material, and technical provision in LLU is well equipped (enough). In a SAR and on a site visit, Experts were provided with information and introduction to the resources of the study program, which consist of three main groups – equipment, software and literature.

There are several goods (some of them newly) equipped laboratories, which are being involved in study and science processes of the study programme implementation: training laboratory for construction materials; building physics laboratory; research and training laboratories of structural engineering; soil mechanics training laboratory; laboratory of pumps and the hydraulic modeling laboratory; water supply and sewerage laboratory; land surveying training laboratory and also GIS Competence Center (established within the framework of the Latvian-Lithuanian cross-border cooperation project). A special function for this study programme is the acoustics laboratory, which is designed for testing the environment. This laboratory was exclusively welcomed by social partners of the Faculty, who paid special attention to these premises and would prefer to collaborate with the Faculty in order to test new materials.

The VBF has good enough computer equipment and software for all basic knowledge necessary to prepare civil engineers and is equipped with BIM support software. Several computer auditoriums (around 25 workplaces) are available for students; the classrooms are equipped with interactive displays and whiteboards. Based on the information received on the site visit, the equipment is accessible for the students after classwork.

However, it is highly recommended by Experts and almost all the interviewers (employees, teachers, students) to have the newest versions of Software. It would be beneficial to integrate into the study programme courses enacting modern up-to-date software (f.e. RFEM Dlubal, Tekla Structure, IDEA

Static). There are always possibilities for development and improvement, for instance, software, and as a result more powerful computers for new softs.

LLU has a well-developed Fundamental library and premises, with good access to various databases and online accessibility, also from outside the campus, which is very valuable, especially during the pandemic period.

In addition, ample space of the Faculty has considerable potential to recruit the areas. Experts noticed underused premises of Building of Environment and Civil Engineering faculty and critical condition of some of them. The building requires update and renovation, in both – energy efficiency and decent outlook. In SAR SWOT analyses (p. 35), as a weakness is mentioned – the lack of territory for the establishment of outdoor laboratories to implement the study process and scientific activity of the study programme. However, there are plans and potential to develop them. Students have an opportunity to use the Faculty of Environment and Civil Engineering Information Centre with free access to the LLU Fundamental Library database (SAR p. 201) and have some spaces for individual work. Also, two computer classes with 49 are available for students (SAR p. 202) in the programme, which are also accessible after classwork.

LLU has a well-organised structure of incomes and expenditures of the general budget of the HEI, which, based on the information presented in SAR (p. 203), is prepared following the Law on the State budget, enacted annually by the Latvian Parliament and the Rector of LLU. The distribution is also being reviewed and approved by all necessary parties, collected into the Working group on Resource Use. Taking into consideration this fact, and the fact, that this is a fully paid study program without a state budget, where a big part of the funding is covered by the received tuition fee (SAR p. 203), it can be stated that financial provision of this study programme comply with the features needed to implement it.

3.2. Not applicable

Conclusions by specifying the strengths and weaknesses

Resources and provision of the Study Programme are well equipped (enough), with several good (some of them new) laboratories, a well-developed Fundamental library and premises, and access to various databases and online accessibility. The faculty has good computer equipment and software for all basic knowledge necessary to prepare civil engineers. However, there are always possibilities for development and improvement, for instance, software, and as a result more powerful computers for new software. The underused capacity of the Faculty's premises has considerable potential for development and needs to be renovated to improve the energy efficiency and contemporary outlook, especially in the common spaces.

Strengths:

1. Well developed technical infrastructure, equipment, digital technologies, which are suitable and good enough for the basic knowledge;
2. Well developed Fundamental library and premises, good access to various databases and online accessibility also from outside of the campus;
3. Ample space of the Faculty has considerable potential to recruit the areas;
4. Big potential of acoustics laboratory, designed for testing the environment.

Weaknesses:

1. The VBF faculty building requires update and renovation, in both – energy efficiency and

contemporary outlook.

4. Teaching Staff

Analysis

4.1. The number of academic staff, involved in the first level professional higher education study programme Civil Engineering, based on SAR of the programme has changed minimally. Based on SAR (p. 204) there are 33 teaching staff members, where 10 of them are from other Faculties of LLU. The positive fact is that more new lecturers appeared through that time period. This fact shows that the academic personnel are slowly, but being renewed in the faculty. However, on the other hand – the amount of assistant professors, associated professors (incl. emeritus) and professors have decreased.

Based on SAR, some lecturers who teach this specialisation study courses at LLU are at the same time representatives from business companies and basically work in two places. This is an excellent practice that helps the students and university receive the newest up-to-date material about the study course, which is being taught to them. This circumstance was discussed very positively on a site visit in the meeting with university staff and students. Students are very satisfied with those lectures, who have double experience (academic and industry).

4.2. It's price-worthy that the university took into account the previous experts' recommendation to reduce the average age of the academic staff and has been starting to implement that. Many academic staff members under the age of 45 have been attracted to the SF. This fact was approved by several parties on a site visit as well. However, it still feels that the level of English knowledge of some teachers needs to be increased. According to the opinion of the students – they are happy with the level of qualification of the teachers, especially that many of them are representatives from industry. This is very much worth it.

Also, based on SAR's Table 4 (p. 206) about the conformity of qualification of the teaching staff, the qualification of the teaching staff involved in the programme complies with the conditions of the study programme implementation and the requirements of the regulatory enactments (Table 4).

4.3. Not applicable

4.4. To integrate the newest up-to-date information in the study process, it is crucial that academic staff actively implement scientific research, especially in the field, related to the content of the study programme. Part of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals. However, not all of those projects are strictly in the content of the study programme. Some of them are participating in their own science initiatives. This is a favorable circumstance, but from another hand does not allow developing the recommence study processes. Moreover, proactive participation in international research projects is recommended. A more considerable initiative is needed from the Faculty management and the project management/development department to initiate the research project collaboration (on National and International levels). Additionally, more active involvement of students in science projects is highly recommended.

4.5. Based on SAR's information (p. 214) - the ratio between the number of students and the teaching staff of first level professional higher education study programme Civil Engineering programme is 19.1 (on 01.09.2020.), which is satisfactory. There are several activities in the Faculty, which shows that the mutual collaboration between the teaching staff and partners outside the university is being implemented to promote cooperation and ensure interrelation between the study courses/modules (research contracts with companies from the industry; European Union-funded

research projects; development of laboratories; taking part in international professional and scientific, organisations and working groups; etc. (SAR p. 211-213).

Conclusions by specifying the strengths and weaknesses

The teaching staff, involved in the first level professional higher education study programme Civil Engineering, comply with the prescribed requirements and relevant criteria, obligatory to implement this study programme. There are also excellent practises in the Faculty. For example, a part of the teaching staff are representatives from business organisations, which brings added value to the quality of the study programme and helps students and the university to receive the newest up-to-date material. However, minor deficiencies, like the insufficient level of English knowledge of some teachers, have been identified. These deficiencies, placed in the section "weaknesses", still need to be improved.

Strengths:

1. Some lecturers who teach this specialisation study courses at LLU are at the same time representatives from business companies;
2. More academic staff members under the age of 45 have been attracted to the SF;
3. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals.

Weaknesses:

1. The level of English knowledge of (some) teachers needs to be increased;
2. More considerable initiative is needed from the Faculty management and the project management / development department to initiate the research project collaboration;
3. The number of assistant professors, associated professors (incl. emeritus), and professors have decreased.

5. Assessment of the Compliance of the Study Programme "Civil Engineering"

Requirements

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

Assessment of compliance: Fully compliant

The sample of the diploma is provided and complies with the procedure by which state-recognized documents of higher education are issued – in the annexes section "Description of the Study Direction - Other mandatory attachments".

2. Documents confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued.

Assessment of compliance: Fully compliant

Provided compliance and AGREEMENT between LATVIA UNIVERSITY OF LIFE SCIENCES AND TECHNOLOGIES and RIGA TECHNICAL UNIVERSITY confirm that RTU shall undertake and provide learning opportunities in relevant programmes for students of LLU in case the implementation of the study programme is discontinued. The Agreement is applicable to the First level higher education study programme "Civil Engineering" contained in the fields of study Architecture and

Construction.

- 3 3. Document confirming that the higher education institution/ college guarantees to the students a 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 higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" provided and confirms that if SPis discontinued and students do not wish to continue their studies at RTU, they are reimbursed their tuition fees – annex section "Description of the Study Programme - Other mandatory attachments".

- 4 4. 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

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" confirms (paragraph 7) that Latvian language proficiency of the teaching staff involved in the implementation of SP complies 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 – annex section "Description of the Study Programme - Other mandatory attachments".

- 5 5. 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.

Assessment of compliance: Not relevant

- 6 6. 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.

Assessment of compliance: Not relevant

- 7 7. 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 Institutions of Higher Education.

Assessment of compliance: Not relevant

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

Assessment of compliance: Fully compliant

Study agreement provided in the appendix – annex section "Description of the Study Programme - Other mandatory attachments".

- 9 9. 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 56.1, Paragraph two and Section 56.2, Paragraph two of the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

Submitted descriptions - Appendix 5 to SP.

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

Assessment of compliance: Fully compliant

Submitted compliance according to the applicable professional standard "Building Construction Manager" - Appendix 4 in the annex section "Description of the Study Programme"

- 11 11. 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 Institutions of Higher Education.

Assessment of compliance: Not relevant

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

Assessment of compliance: Fully compliant

Submitted compliance of the First level higher education study programme "Civil Engineering" with the National Educational Standard According to the applicable National Educational Standard, Regulation No. 141 "Regulations on the Acquisition of State First Level Professional Higher Education" <https://likumi.lv/ta/id/6397-noteikumi-parpirma-limena-profesionalas-augstakas-izglitiba-valsts-standartu> - Appendix 3 in the annex section "Description of the Study Programme"

- 13 13. The joint study programmes comply with the requirements prescribed in Section 551, Paragraphs one, two, and seven of the Law on Institutions of Higher Education (if applicable).

Assessment of compliance: Not relevant

- 14 14. Each member of the academic staff has either publications published in reviewed editions within the last six years, including international editions (if they have worked for a shorter period of time, the number of publications shall be in proportion to the work period), or artistic creation achievements (for instance, exhibitions, films, theatre performances, and concert activity), or a five-year practical work experience (except for the experience in the implementation of the study programme) in accordance with the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

SAR, p. 206.-214., Appendix to SAR, Appendix 5 in the annex section "Description of the Study Programme".

- 15 R5 - Overall rating

Assessment of compliance: Fully compliant

Study program complies with all previous requirements.

Requirements (R6-R8)

- 1 R6 - The compliance of the study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision with the conditions for the implementation of the study programme and ensuring the achievement of the learning outcomes.

Assessment of compliance: Fully compliant

LLU has all the necessary resources (technical, financial, informative) to be able to implement a first-level professional higher education study programme Civil Engineering to fulfill R6 criterion. Justification is based on assessment in the LLU, experts' visit, Experts' analyses (Chapter 3).

- 2 R7 - The compliance of the qualification of the academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments.

Assessment of compliance: Fully compliant

The teaching staff, involved in the first level professional higher education study programme Civil Engineering, comply with the prescribed requirements and relevant criteria, obligatory to implement this study programme.

- 3 R8 - The study programme leading to the master or doctoral degree is based on the advances and findings in the relevant field of science or artistic creation.

Assessment of compliance: Not relevant

Conclusions by specifying the strengths and weaknesses

The first level professional higher education study programme "Civil Engineering", implemented in Latvian language, provides a professional Building Construction Manager qualification, without a degree acquired. The study programme ensures the training of Building Construction Managers of 4th level professional qualification in accordance with the requirements of the labour market, who can perform complex work of a contractor, as well as organise and manage construction works in accordance with legislation. Admission requirements are clear, transparent and ensure the quality of the enrolled students. Studies in the speciality of civil engineering at LLU are practically oriented, providing competency-based education. Aims, objectives, learning outcomes and admission requirements of the first level professional higher education study programme "Civil Engineering", in general, are interrelated and comply with the SF Architecture and Construction. Studies in the speciality of civil engineering at LLU are practically oriented, providing competence-based education, because lecturers and doctoral students are closely connected with the practice, working in companies or performing research for entrepreneurs. Descriptions of the study courses, professional pre-diploma traineeship and students' qualification works writing regulations are developed and available to students, and in general, comply with the provisions outlined in the regulatory enactments. The content of study courses is relevant and complementary. It complies with the aims of the first level professional higher education study programme "Civil Engineering", ensures the achievement of the general learning outcomes, and meets the needs of the relevant industry and the scientific trends. There is evidence of the implementation of student-centred learning and teaching. Ensured professional pre-diploma traineeship, abroad students work opportunities, the revision of students complaints. Students, graduates, and employers confirmed that the surveys are conducted and afterwards taken into consideration, and necessary adjustments, if any, are made. Only a few surveys are conducted every academic year because they are not obligatory. During the meeting with the students, they were not aware of the guest lecturers. Employers and alumni are willing to give guest lectures (as they have told Experts at the

on-site meeting). Experts consider that the number of guest lectures should be increased.

Resources and provision of the Study Programme are well equipped (enough), with several good (some of them newly) laboratories, a well-developed Fundamental library and premises, and access to various databases and online accessibility. The faculty has good computer equipment and software for all basic knowledge necessary to prepare civil engineers. However, there are always possibilities for development and improvement, for instance, software, and as a result more powerful computers for new softs. The underused capacity of the Faculty's premises has considerable potential for development and needs to be renovated to improve the energy efficiency and contemporary outlook, especially in the common spaces.

The teaching staff, involved in the first level professional higher education study programme Civil Engineering, comply with the prescribed requirements and relevant criteria, obligatory to implement this study programme. There are also price-worth excellent practises in the Faculty. For example, a part of the teaching staff are representatives from business organisations, which brings added value to the quality of the study programme and helps students and the university to receive the newest up-to-date material. However, minor deficiencies, like the insufficient level of English knowledge of some teachers, have been identified. These deficiencies, placed in the section "weaknesses", still need to be improved.

Study program complies with all the key points, which facilitate the assessment of the compliance of the study program with the requirements prescribed in the Law on Institutions of Higher Education and other regulatory enactments. All required documents, justifications are submitted and evaluated as valid.

Whilst assessing the compliance of the study programme with the prescribed requirements, minor deficiencies have been identified.

Strengths:

1. Admission rules ensure high quality of enrolled students;
2. Students have the opportunity to transfer from the first level professional higher education study programme Civil Engineering (part-time studies) to enter the LLU professional bachelor's study programme Civil Engineering in the later stages and within 2 or 3 years, obtaining the qualification of a Building Civil Engineer
3. Up-to-date curriculum of the first level professional higher education study programme "Civil Engineering";
4. Student-centred learning and teaching are broadly applied in study courses; students have the possibility to be involved in study process assessment;
5. Mandatory professional pre-diploma traineeship has enhanced the practical part of the first level professional higher education study programme "Civil Engineering"; network of LLU partners and Alumni ensure professional pre-diploma traineeship possibilities to the students of the programme domestic and abroad companies.
6. Well developed technical infrastructure, equipment, digital technologies, which are suitable and good enough for the basic knowledge;
7. Well developed Fundamental library and premises, good access to various databases and online accessibility also from outside of the campus;
8. Ample space of the Faculty has considerable potential to recruit the areas;
9. Big potential of acoustics laboratory, designed for testing the environment;
10. Some lecturers who teach this specialisation study courses at LLU are at the same time representatives from business companies;
11. More academic staff members under the age of 45 have been attracted to the SF;
12. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals.

Weaknesses:

1. The decrease in the number of students/number of dropouts;
2. Lack of surveys for academic staff to provide their assessment of the content of the study course and the students' work at the end of each semester
3. Lack of obligatory surveys for all levels (students, staff, graduates, employers);
4. The insufficient number of guest lectures (from professionals from industry).
5. The building requires update and renovation, in both – energy efficiency and contemporary outlook

Evaluation of the study programme "Civil Engineering"

Evaluation of the study programme:

Good

6. Recommendations for the Study Programme "Civil Engineering"

Short-term recommendations

LLU should introduce surveys for academic staff to provide their assessment of the content of the study course and the student's work at the end of each semester.

Surveys on feedback should be determined as obligatory for all involved parties of study process – students, staff, graduates.

SP director should introduce surveys as obligatory for employers (e.g. within the documents related to the implementation of traineeship).

Increase the number of guest lectures, additional efforts are needed to promote guest lectures among the students.

Support, organise and continue improvement of the level of English skills for academic staff.

Long-term recommendations

Evaluate possibilities to provide potentially efficient support for students to decrease the number of students dropouts.

LLU management should be concerned about possible renovation of the VBF faculty building. Experts also noticed underused premises in the building, thus more efficient use of facilities should be evaluated. As well as the building requires an update in energy efficiency, HVAC systems and contemporary outlook in general.

It is highly recommended to follow and introduce the newest / up-to-date versions of computer software (e.g. RFEM Dlubal, Tekla Structure, IDEA Static).

Vice-dean for science / and faculty should supervise and activate participation in international research projects. Faculty management and the project management/development department need to be involved in order to initiate the research project collaboration (on National and International level).

Keeping moving in the same direction regarding the changes of the composition of the teaching staff and the generation change is very commendable.

Recommendation to promote the specialisation of particular study program – what can I learn if I study in LLU? How special would it be if I graduated from LLU? Why do I choose LLU instead of other Universities? Experts suggest the focus may be on rural buildings and materials as it would be a good selling point and direction to develop.

II. "Land Management and Surveying" ASSESSMENT

II. "Land Management and Surveying" ASSESSMENT

1. Indicators Describing the Study Programme

Analysis

1.1. The professional bachelor study programme “Land Management and Surveying” provides a professional bachelor degree in Land Management and Surveying and professional qualification as Engineer of Land Management. LLU is the only university in Latvia that teaches the study programme of Land Management and Surveying and this university has taught Land Management issues since 1947.

There are three forms for study programme:

1. full-time studies with four years in Latvian;
2. part-time extramural studies with a five years duration in Latvian;
3. program data page indicates that there is also English study form (SAR, p. 415), however, it is not implemented yet.

These study programmes volume is 160 CP, which fits to the volume of the bachelor’s study programme.

The objective of the study programme is to ensure the acquisition of theoretical knowledge and working skills for land surveying and mapping, property formation, land consolidation, accounting and valuation, applying modern designing, land surveying and accounting technologies, as well as the acquisition of research skills, so that the specialist who has acquired the engineer's qualification could work in the production sector and also continue Master's studies. Professional Bachelor's degree in Land Management and Surveying grants the right to continue education in the academic Master's study programme “Environment, Water and Land Engineering Sciences”, subdirection “Land Management” or subdirection “Geodesy”, as well as other Master's study programmes according to the enrolment requirements.

The name of the professional bachelor study programme Land Management and Surveying, the degree to be acquired, the aims, objectives, learning outcomes, and admission requirements are interrelated, defined and included in study courses descriptions (Appendix No. 5). Mapping of the study courses for the achievement of the learning outcomes of the study programme is provided (Appendix No. 6), which enables us to see precisely how specific learning outcomes of individual courses are connected with learning outcomes of the study programme and how they contribute to their achievement.

The SP follows the requirements of the labor market as after graduating from the Land Management and Surveying study programme, having worked in the field for two years, the graduate has the right to be certified in accordance with the procedures specified in regulatory enactments in the following areas:

- In the field of land management;
- In the field of land cadastral surveying;
- In the field of geodesy (SAR, p. 425).

This study programme is essential for several certified working fields besides those activities that do

not need the certificate. It means that a study programme is important to guarantee a change of generations in the profession. The issues of land management and surveying are relevant to the national economy and it supports the fulfillment of the European Green Deal and global sustainability goals.

Admission requirements in the study programme are determined in accordance with the requirements of students in engineering studies, thus they are appropriately linked to the study results of the study programme, as well as suitable for applicants depending on the time of the acquisition of secondary education (SAR, p. 422). Admission requirements are clear, transparent and ensure the quality of the enrolled students. Studies in the specialty of Land Management and Surveying at LLU are practically oriented, providing competency-based education. Aims, objectives, learning outcomes, and admission requirements of the professional bachelor study programme Land Management and Surveying, in general, are interrelated and comply with the study field Architecture and Construction.

The multidisciplinary approach used in the implementation of the study programme allows students to practically apply the knowledge acquired in the theoretical part in solving the current problems of companies and institutions in the field, which allows students to integrate into the labour market as much as possible. The implementation of the study programme is focused on the application of innovative technologies for economic development (SAR, p. 423).

The number of enrolled students has been different yearly. It has been 37 in the study year 2017/2018 and 17 in the study year 2019/2020. During the interview, it appeared that some years there are more study places that are financed by the state than interested students. Therefore, there is a need for advertising the study programme that is unique in Latvia. There is a need to raise awareness together with interested groups (Land Board, Land surveying union, etc.) and society in general (especially young generations) about this profession.

SP in the future will be implemented also in English. Considering the experience from other programs in SF, it is necessary to monitor and ensure feasibility of English study form - sufficient number of students is needed in relation to labor input and involvement from teaching staff. For instance, it is possible to establish the minimum number of enrolled students that is needed for opening the course.

The number of student dropouts differs yearly. It was the lowest in study year 2015/2016 (9) and highest in 2018/2019 (18). Total number of dropouts 2015-2020 is 64. The reasons for students dropouts are listed in Appendix 1. The highest number of dropouts are in the first study year. Therefore more attention should turn to these reasons for dropouts and work out the plan that helps to avoid these dropouts.

Another observation that came about the interviews is about the economic security of students. It causes the situation that the students need to work beside their studies. This is a common problem in Latvia - not specific only to LLU. Since it is a full-scale problem, it should be considered the arrangement of the studies. As it appears from the SAR (p 430) it is well known and the study process has been designed flexible enough to allow students to combine their studies with work in the industry. The part-time studies can be a solution for this situation. However, when the part-time studies are only self-financed (SAR, p. 420) then it is not equal possibility compared with full-time study programme. Anyway, the better economic security of students helps to avoid this problem. Of course, if the students are working as professionals it can promote their studies as well. The interview with the students from this study field affirmed that several students are already working

for a professional firm or authority (for example several students are working in Land Board).

Conclusions by specifying the strengths and weaknesses

LLU has extensive experience in teaching Land Management at the university. The professional bachelor study programme “Land Management and Surveying” provides a professional bachelor's degree in Land Management and Surveying and professional qualification as an engineer of land management. The objective of the study programme is to ensure the acquisition of theoretical knowledge and working skills for the field of land management and surveying and also continue Master's studies. The study programme follows the requirements of the labor market and the graduate has the right to be certified in three different fields after he/she has worked in the field for two years. This study programme is unique in Latvia, it is relevant to the national economy and supports the fulfillment of international greening and sustainability trends. There are two forms of study courses in Latvian and one in English. Admission requirements are clear, transparent and ensure the quality of the enrolled students. Studies in the specialty of Land Management and Surveying at LLU are practically oriented, providing competency-based education. The number of enrolled students has been different yearly. It is eligible to advertise unique study programmes together with interested groups.

SP in the future will be implemented also in English but considering the experience from other programs in SF, it is necessary to monitor and ensure the feasibility of English study form.

The number of students dropping out differs yearly. Since the number of dropouts is highest in the first year it requires attention and solutions in the future. A lot of students are working beside their studies because they need income. It is a broader problem, however, it is important to consider this aspect during the arrangement of study programmes.

Strengths:

1. Unique study programme (Land Management and Surveying) in Latvia that is relevant to the national economy and supports the fulfillment of international green and sustainability trends.
2. The study programme follows the requirements of the labor market, it is possible to get the certificate (three different) after two working years.
3. Admission rules are clear and ensure the high quality of enrolled students.
4. There is a cooperation with Eastern European countries established.
5. There will be an English study form besides the Latvian form implemented in the future.

Weaknesses:

1. Lack of cooperation (integration and synergy) with other SP in the SD or LLU in general – the development of multidisciplinary (integrated) study courses would be recommended.
2. Lack of cooperation with institutions from Western European countries.
3. The study programme is not as popular – as a result, there are vacant study places that are financed by the state.
4. A high number of dropouts especially during the first year.
5. Students are working beside their studies resulting in worse progress concerning the studies.
6. Overall low promotion and popularity of the profession – prestige, opportunities, and significance of the profession (SP at the same time also) – department should work with industry for promotion of the profession.

2. The Content of Studies and Implementation Thereof

Analysis

2.1. Descriptions of study courses, the traineeship, and the work for the final thesis are clear, available to students and faculty, and in general, comply with the provisions outlined in the regulatory enactments. The study content is relevant and complementary and it complies with the aims of the SP “Land Management and Surveying”, ensures achievement of general learning outcomes, and meets the needs of the relevant industry. Every study year several guest lecturers who are employees or representatives of the industry give lectures on current events in the industry (SAR p. 424).

The study content is regularly improved (SAR, p. 423). Lastly, in the academic year of 2019/2020, in cooperation with specialists and employers in the field, the study plan was improved, as a result of which several study courses with a smaller volume were combined into one (SAR, p. 425). For example, “Physics” and “Mathematics” were combined in the study course “Geodesy I”, thus encouraging students’ understanding of the connection between physics and mathematics and the understanding of the theoretical basic courses of the studies (SAR, p. 425). During the interview it was asked from students about the basic subjects as “Physics” and “Mathematics” and they were satisfied with such integration. They mentioned that this way they can understand why they need special knowledge from mathematics or physics. The study content is up-to-date and follows the current tendencies in land management and surveying.

As the study programme is connected with the labor market then some topics are led by lecturers from the industry and representatives of employers participate in the review of thesis projects and in the State Examination Commission (SAR, p. 425, 426).

The study programme is in accordance with the national standard of second-level professional higher education. The requirements of the standard and indicators of the programme are presented in Appendix 2 (Conformity of the Professional Bachelor’s study programme “Land Management and Surveying” to the national standard of education).

The content of the study programme is developed and corresponds to the CURRENT professional standard of the land management engineer. The detailed description for the professional knowledge and corresponding study courses are presented in Appendix 3 (Conformity of the Professional Bachelor’s study programme “Land Management and Surveying” to the professional standard). Additional information was added from SP director and explained in the letter from the Latvian Association of Cartographers and Geodesists and the Latvian Surveyors Association about the current activities related to the new professional standard. In accordance with the updated construction industry professions' card (for several professions: geodesy engineer, cartography engineer, land surveying engineer and hydrographic engineer), the professional standards are in development. As it is adopted during the interviews the new standard is still in the course of preparation and it is assumed that programme will be adjusted and compliance to new standard will be checked after new standard is in force.

2.2. The study programme is implemented by lectures, practical and laboratory classes, trips to companies in the field, as well as in independent studies, learning the basics of land management and land surveying and regularities with other sectors of the economy (SAR, p. 426). All conditions for obtaining credit points are described in the programme description of each study course (SAR, p. 427).

The didactic concept of the study programme is based on the use of the latest and most advanced teaching methods. If it is possible then it is focused on solving real examples and problems (e.g. study courses “Land Law II”, “Land Boundary Law” and “Land Cadastral Survey”). Teaching methods such as lectures using PowerPoint or other presentations, seminars, group work, situation analysis,

study tours to companies and institutions in the field are used to strengthen the theoretical knowledge in the practical work environment. In the study process, great emphasis is placed on students' independent work, using both problem-based learning and situation analysis and the advisory role of the lecturer (SAR p 428). For some study courses using the metacognitive principles, students plan their activities depending on their own learning goals and independently manage their own learning process, at the same time analysing and evaluating what they have acquired in the study course and in the study process in general (SAR, p. 429).

In the implementation of the study programme, the LLU e-learning environment is used, which is created on the Moodle platform, which is regularly used by the students, lecturers and guest lecturers of the study programme. During the COVID-19 pandemic e-learning environment is obtained more important than before (SAR, p. 429). During the interviews the study staff and students mentioned that they use use different more informal communication apps, WhatsApp, etc. After a couple of years of COVID-19 pandemic some students and study staff are tired of using e-environments. The teaching staff brought out the difficulties with the study process that consists of a lot of practical work. Also, this situation has brought together a higher workload to the study staff concerning giving feedback.

Student-centered learning and teaching principles are taken into account. It is described in the SAR seven principles (SAR, p. 429-431). Students can influence the study process through the regular meetings or feedback of study courses. Study process is flexible enough to allow students to combine their studies with work in the industry and family life. The teaching staff involved in the implementation of the study programme are provided with regular opportunities for the improvement of their methodological and didactic skills. There are extracurricular activities for students (SAR, p. 429-431).

Land Management and Surveying study programme consists of a traineeship which aims to give students the opportunity to strengthen their theoretical knowledge, to acquire the competence corresponding to the study, as well as to give the student the opportunity to obtain the information necessary for the development of the diploma project. The total amount of CP awarded for the internship in the study programme is 26 CP (SAR p 431-432). It is divided between practical training and professional internship. The practical training takes place within the specific study course. There are two professional internships in the study programme and these professional internships are implemented in accordance with the internship agreement, which LLU concludes with the internship provider and the student (SAR p 432-433).

2.3. At the end of each semester, in the LLU e-environment, a student survey is conducted on the quality of the study process and the work of the teaching staff. The questionnaires are anonymous and are not personally related to a specific student. Students are given the opportunity to express their opinion by filling in the questionnaires conscientiously and objectively (SAR, p. 436-437). However, it is marked in SAR and it appeared during the interviews with staff and students that students' participation in these surveys is not always active. In order to obtain a more complete opinion from students about the work of the lecturers and the study process, the Department of Land Management and Geodesy has developed questionnaires for students, graduates and employers (SAR, p. 437). Based on the recommendations of employers, the content of several study courses has been revised, as a result of which it has been supplemented with more topical topics or improved. After the students' survey, the results of the lecturers' work performance evaluations are discussed at the meetings of the Department of Land Management and Geodesy twice a year (SAR, p. 438).

2.4. Full-time students take the opportunity to participate in mobility activities, but their activity

could be more vibrant (SAR, p. 438). The students are aware of the possibility to go to study abroad and using for example Erasmus+ programme. During the site visit, the students brought out some obstacles to using this possibility. The students are working already and it limits the possibility of going to study abroad. Currently, in SP, all full-time and part-time students study in Latvian, separate study courses within the Erasmus+ program are taught to foreign students in English (SAR, p. 420). Incoming mobility (students who go to study in Latvia) can bring more benefit if there would be joint subjects or study courses. There is also a danger that by starting to implement ENG and LV study forms – Latvian and foreign students will be “separated”.

The teaching staff of the Department of Land Management and Geodesy participated as partners in the Interreg Latvia-Lithuania cross-border project GISEDU, within which the study programme study courses were improved, including GIS topics, as well as students were offered the opportunity to participate in GIS knowledge development courses, thus acquiring in-depth knowledge in the study programme study course “Geographic Information Systems”. Several lecturers of the Department of Land Management and Geodesy participate in the organization of BOVA (Baltic Forestry, Veterinary and Agricultural University Network) courses and conduct lectures, also involving students of the study programme (SAR, p. 439). Student participation in these courses is very active.

Outgoing mobility opportunities are used only by full-time students of the study program, part-time students do not choose it because they do not want to terminate their employment. However, in recent years, part-time students have also participated in BOVA courses (SAR, p. 440).

Conclusions by specifying the strengths and weaknesses

The descriptions of the study courses, the traineeship, and the final thesis are clear and its content is relevant and complementary. The study content is regularly improved, lastly in the academic year of 2019/2020. Development of SP has been done together with specialists and employers in the field. Lectures from the industry and institutions introduced several practical topics into teaching.

The study implementation methods are more traditional and contribute to the achievement of the aims and learning outcomes. It is worth mentioning that problem-based learning and metacognitive principles are used. LLU e-learning environment is used especially during the period of COVID-19. Student-centered learning and teaching principles are taken into account. The study process is flexible enough to allow students to combine their studies with work in the industry and family life.

The study programme consists of a traineeship that aims to give students the opportunity to strengthen their theoretical knowledge. The traineeship is divided between practical training and professional internship and its total amount is 26 CP. At the end of each semester, in the LLU e-environment, a student survey is conducted on the quality of the study process and the work of the teaching staff. Still, students' participation in these surveys is not always active. The Department of Land Management and Geodesy has developed questionnaires for students, graduates and employers to get additional information for lectures and the study process. Students can influence the study process through the regular meetings or feedback of study courses. The results of the lecturers' work performance evaluations are discussed at the meetings of the Department of Land Management and Geodesy twice a year.

The students are aware of the possibility of going to study abroad, however, there are few students who use this opportunity. Outgoing mobility opportunities are used only by full-time students of the study programme, part-time students do not choose it because they do not want to terminate their employment.

Strengths:

1. Up-to-date curriculum of the professional bachelor study programme “Land Management and Surveying”.

2. Student-centred learning and teaching are broadly applied in study courses.
3. Students have the possibility to be involved in study process assessment.
4. Mandatory traineeship has enhanced the practical part of the professional bachelor study programme "Land Management and Surveying"; a network of LLU partners and Alumni ensure traineeship possibilities to the students of the programme domestic companies.

Weaknesses:

1. Students' participation in the feedback surveys is not active.
2. High ratio of students are working during their studies.
3. Low level of encouraging and motivating students to take part in mobility programs.

3. Resources and Provision of the Study Programme

Analysis

3.1. The study base for the students of the study programme, as well as for the teaching staff is available in the electronic environment LLU IS (https://lais.llu.lv/pls/pub/pub_switcher.main?au=G&page=personal_data) (SAR, p. 443).

The scientific and information base consists of extensive resources at the disposal of the study programme, e.g. the provision of databases and the latest scientific and study literature (SAR, p. 443). The Library of the LLU offers students, as well as the teaching staff, on-site library/reading hall and also access to subscribed electronic databases, as well as temporary trial databases (SAR, p. 443). During the study visit, it has been clear that students and university staff were satisfied with the service of the Library.

The Department of Land Management and Geodesy has 4 lecture halls, 2 computer classrooms, 4 laboratories - Photogrammetry Laboratory, GIS Competence Centre, Surveying Training Laboratory, and Geodetic Instruments Calibration Laboratory. Each lecture hall has a stationary control computer and projector, automatic drop-down screen, and Internet access (SAR p 444). The department has two computer classrooms (20 workstations and 12 workstations). The photogrammetry laboratory has 7 workstations. The computer equipment is equipped with all the latest computer software required to ensure the study process at a high quality, such as Oracle, MicroStation, Liscad, SPSS, TRIMBLE business centre, Fotomod, Pix4di, ArcGIS map, ArcGIS Pro (SAR, p. 444).

Lately, modern, state-of-the-art toolkits have been purchased, such as electronic tachometers, digital levellers, optical theodolites, optical levellers, digital rangefinders, global positioning equipment (single-frequency and dual-frequency), closed engineering search equipment, robotic tachymeter, ground scanner, unmanned aerial vehicle (drone), photogrammetric camera, as well as laths, stands, measuring tapes, reflectors and other materials necessary for the performance of the surveying process (SAR, p. 444).

The GIS Competence Center houses a large-format scanner for scanning cartographic images, as well as a plotter and a 3D printer, which students use in the process of developing scientific and diploma projects (SAR, p. 444).

A Calibration Laboratory has been established in the laboratory building.

In the last two years, significant repair works were performed, computer hardware, equipment and tools, equipment were purchased (SAR, p. 444).

The suggestion is to look for possibilities to modernize the study environment, especially common halls and general outlook. At the moment it is not visually appealing, for example, posters and information in hallways are outdated, they are reminiscent of the Soviet period.

A cooperation agreement has been concluded with the State Land Service on the use of cadastral data from the database of the State Real Estate Cadastre Information System (SAR, p. 445).

The number of state-funded study places is coordinated in a tripartite agreement between the Ministry of Education and Science (MES), the Ministry of Agriculture (MA) and LLU (SAR, p. 445). The basic cost of one study place is 1630.11 EUR, the study level coefficient for Bachelor's programmes is 1 and the social funding of one study place for Bachelor's programmes is 164.34 EUR, the study cost coefficient for the Bachelor's programme "Land Management and Surveying" is 3.1. Costs per student in the Bachelor's "Land Management and Surveying" amount to 5217.66 EUR (SAR p. 445). In 2021, the tuition fee in the study program is 980 EUR per semester or 1960 EUR per year for full-time studies and 700 EUR per semester or 1400 EUR per year for part-time studies in the Latvian language. For foreign students, the tuition fee will be set after accreditation of SF.

State scholarship in the professional Bachelor's study programme until 1 January, 2020 were 99.60 EUR, but for the period from 01.01.2020 until 31.12.2021, the scholarships are intended to reach 200 EUR per month. In one study year, scholarships are awarded to an average of 13 students. According to the number of successful students, the scholarships are distributed in proportion to the students of each study year who have received the highest grades. Students in the programme also have the opportunity to apply for several scholarships managed by the Development Fund of the LLU, as well as the scholarship of J.Bikis of the VBF. Such scholarships have been received by 6 students of the programme during the reporting period, incl. 1 student has received a scholarship of Kārlis Ulmanis, 1 student has received a scholarship of Jānis Čakste, 1 student has received a scholarship of Mirdza Oškalne and 3 students have received a scholarship of J.Bikis (SAR p 447). Although there are several possibilities for getting scholarships, still a lot of students are working beside their studies. The reason can be that the amount offered by scholarship is insufficient.

3.2. Not applicable

Conclusions by specifying the strengths and weaknesses

The electronic environment LLU IS consists of the information that is essential for the students and the teaching staff. The Fundamental Library of LLU is well developed (rooms are modern and comfortable) and it offers the use of on-site sources and databases. It is possible to use the services online and also from outside of the campus. The students and teaching staff are satisfied with the services of the Fundamental Library.

The Department of Land Management and Geodesy has enough rooms (classrooms, laboratories) and other equipment including geodetic instruments for carrying out the studies. Lately, modern toolkits have been acquired. The suggestion is to look over the Department rooms and consider modernising this environment. At the moment it is not visually appealing, for example posters and information in hallways are outdated, they are reminiscent of the Soviet period.

The GIS Competence Centre and a Calibration Laboratory give additional possibilities for the studies and research. There are agreements with the State Land Service on the use of cadastral information. Costs per student in the Bachelor's "Land Management and Surveying" amount to 5217.66 EUR. In 2021, the tuition fee in the study program is 980 EUR per semester or 1960 EUR per year for full-time studies and 700 EUR per semester or 1400 EUR per year for part-time studies in the Latvian language. The students have the possibility to get a scholarship according to their study results and they have the possibility to apply for other scholarships. However, the possibilities to get a scholarship are limited or its level is too low therefore a lot of students are working beside their studies.

Strengths:

1. Well-developed technical infrastructure, equipment, digital technologies, which are suitable and good enough for the basic knowledge.

2. Well-developed Fundamental Library and premises, good access to various databases, and online accessibility also from outside of the campus.
3. The GIS Competence Center, a Calibration Laboratory, have enough instruments for land surveying studies.

Weaknesses:

1. Several VBF faculty building premises require update and renovation, in both – energy efficiency and contemporary outlook.
2. Visually appealing, modern, up-to-date environments should be created and maintained for the study process. Posters and information in hallways are outdated, “old-school”, reminiscent of the Soviet period.
3. Insufficient scholarships result in a situation where many students are working beside their studies.

4. Teaching Staff

Analysis

4.1. The Department of Land Management and Geodesy consists of 17 persons in 2019/2020. There are positive trends in the number of positions. Two lecturers in the position of lecturer are working on the final phase of their doctoral theses, thus, after defending them, the number of lecturers holding the position of assistant professor in the Department of Land Management and Geodesy will increase. The largest share is in the groups of lecturers (34%) and after that the group of assistant professors (30%). The majority of lecturers in the study programme are aged 31 to 40 (SAR, p. 448-449). It is marked in the SAR (p. 450) that changes in the teaching staff of the study programme since the 2015/2016 academic year have a positive dynamic.

The Land Management and Surveying study programme is interdisciplinary and it is the reason why several structural units besides the Department of Land Management and Geodesy have been involved for teaching. It gives advantages, as teachers bring in diverse knowledge and concepts and it enables better cooperation between teaching staff. Despite the study programme being interdisciplinary there is still a need to facilitate the common courses for the students from different study programmes (but close fields). It helps to get familiar with other fields during the studies. Whereas the study programme is interdisciplinary it needs only some contribution by teaching staff and Faculty management.

4.2. The qualification of the teaching staff members enables the achievement of the aims and learning outcomes of the study programme and the relevant study courses. It fully complies with the requirements for the implementation of the study programme and the requirements set forth in the regulatory enactments. According to accreditation guidelines the following requirements are set: “Each member of the academic staff has published articles in peer-reviewed publications, including international publications, in the last six years (in case of a shorter period worked, the number of publications is proportional to the time worked) or creative artistic achievements, or five years of practical work (except length of service in the implementation of the study programme) in accordance with the Law on Higher Education Institutions”. According to the Appendix 5 (List of the publications, patents, and artistic creations of the teaching staff over reporting period) the lecturers who are involved in this study programme have publications or practical work experience. Several persons who have been involved in this study programme have publications and also practical work experience. That is added value for such a study programme that is tightly connected with the practical works.

The teaching staff of the Department of Land Management and Geodesy actively improves their qualifications by attending practical conferences and seminars, which are organized for specialists in the field; they improve their qualification by participating in the Erasmus + mobility program, with guest lectures at foreign universities. They are actively involved in organising BOVA networking courses, as well as giving lectures in these courses (SAR, p. 451).

The guest professors from foreign universities are involved in the study programme. They have been from Lithuania, Ukraine and Poland (SAR, p. 448). It can only be suggested to more actively involve the guest lectures/professors from the Western Europe countries. During the COVID-19 period a lot of lectures have been held over the internet. It can facilitate the involvement of the foreign lectures over the internet.

There is outgoing mobility by the teaching staff, for example the studies in Spain and lectures under Erasmus+ programme and BOVA networking courses (SAR, p. 450-451).

4.3. Not applicable

4.4. The Department of Land Management and Geodesy implements scientific research activities in two directions: 1) in the field of engineering - Remote sensing, geodesy and geospatial research - and 2) in the field of social sciences - Land and real estate management research. The teaching staff of the study programme is involved in scientific research both at the national and international level (SAR, p. 453). The total number of publications is 140, incl. 51 publications in international, peer-reviewed scientific journals included in Web of Science or Scopus scientific literature databases and 89 publications in anonymously-reviewed international scientific journals, incl. proceedings (SAR, p. 454). The teaching staff of the Department of Land Management and Geodesy has given a total of 155 reports, incl. 133 reports at international scientific conferences (SAR, p. 455).

4.5. The study programme implemented by the Department of Land Management and Geodesy can be perceived as interdisciplinary. The study courses of the programme are implemented by lecturers from 13 different structural units of LLU. Several of the teaching staff involved in the study process are industry professionals who mainly participate in the management of practical training (SAR, p. 455).

In order to achieve the results of the study programme, several study courses have integrated interdisciplinary themes, where the mutual cooperation of the teaching staff makes a significant contribution in order to promote the interconnection of study courses and logical, sequential acquisition (SAR, p. 456). For example "Geodesy I" consists of physics and mathematics. It appeared during the interview that this kind of system suits for the students well.

Conclusions by specifying the strengths and weaknesses

The Department of Land Management and Geodesy consists of 17 persons in 2019/2020. There are positive trends in the number of positions. The largest share is in the groups of lecturers (34%) and after that the group of assistant professors (30%). The study programme is interdisciplinary, it involves teaching staff from other departments besides the Department of Land Management and Geodesy.

There is still a need to facilitate the common courses for the students from different study programmes which helps to get familiar with other fields during their studies. The qualification of teaching staff members involved in the implementation of the study programme complies with the requirements for the implementation of the study programme. The lecturers who are involved in this study programme have publications or practical work experience.

Multiple persons who have been involved in this study programme have publications and also practical work experience. The teaching staff of the Department of Land Management and Geodesy

actively improves their qualifications. The guest professors from foreign universities are involved in the study programme. They are from Lithuania, Ukraine and Poland. The suggestion is to involve the guest lectures/professors from the Western European countries as well. The Department of Land Management and Geodesy implements scientific research activities in two directions: in the field of engineering - Remote sensing, geodesy, and geospatial research - and in the field of social sciences - Land and real estate management research. The teaching staff of the Department of Land Management and Geodesy has published 140 publications and 155 reports. The study programme implemented by the Department of Land Management and Geodesy is interdisciplinary, it involves lectures from different structural units of LLU and also professionals from outside the university.

Strengths:

1. The programme has the appropriate qualification of teaching staff - 50% having PhD degree and 43% – Master's degree.
2. Some lecturers who teach the specialization study courses at LLU are professionals at the same time involved in business companies and are certified, specialists.
3. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals.
4. The guest lectures/professors are involved in the study programme.

Weaknesses:

1. More initiative is needed from the teaching staff and SP and department management to initiate the courses in which participants (students) are from different study programmes.
2. Shortage of guest professors from Western European countries.

5. Assessment of the Compliance of the Study Programme "Land Management and Surveying"

Requirements

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

Assessment of compliance: Fully compliant

Provided sample of the diploma to be issued for the acquisition of the study programme.

2. Documents confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued.

Assessment of compliance: Fully compliant

Provided agreement between Riga Technical University and LLU.

3. Document confirming that the higher education institution/ college guarantees to the students a 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 higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme.

Assessment of compliance: Fully compliant

Provided document – approval from LLU.

- 4 4. 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

Confirmation signed by the rector, director or the head of the study programme or the study direction of the higher education institution/ college which states that the official language proficiency of the teaching staff.

- 5 5. 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.

Assessment of compliance: Fully compliant

Teaching staff CV's, Appendix 3 for study field "Basic information on the teaching staff involved in the implementation of the study direction"

- 6 6. 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.

Assessment of compliance: Not relevant

- 7 7. 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 Institutions of Higher Education.

Assessment of compliance: Not relevant

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

Assessment of compliance: Fully compliant

The sample of study agreement provided.

- 9 9. 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 56.1, Paragraph two and Section 56.2, Paragraph two of the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

Submitted study course descriptions in Latvian and English.

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

Assessment of compliance: Fully compliant

Letter (Date: 19.04.2021, Letter no.: 5.1-21/21) from Chairman of the Latvian Association of Cartographers and Geodesists about the development of a professional standard is provided, confirming the following:

"Latvian Association of Cartographers and Geodesists and the Latvian Surveyors Association have started work, in accordance with the construction industry profession map, geodesy

engineer, cartography engineer, land surveying engineer and hydrographic engineer - professional standard update and development." The working group plan to complete the work on updating and developing the standard of the Geodesy and Cartography Engineer profession group in the autumn of 2021.

Accordingly, LLU has submitted Conformity (SP description, Appendix 3) of the Professional Bachelor's study programme "Land Management and Surveying" to previously actual standard - this version of the profession standard was coordinated at the meeting of the Tripartite Cooperation Sub-council of Vocational Education and Employment of 20 August 2009, Minutes No.6.

<https://registri.visc.gov.lv/profizglitiba/dokumenti/standarti/ps0429.pdf>

Following that it can be concluded that SP will follow up to the new standard and evaluate conformity accordingly.

- 11 11. 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 Institutions of Higher Education.

Assessment of compliance: Not relevant

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

Assessment of compliance: Fully compliant

The study programme complies with the Professional Higher Education Standard (Appendix 2).

- 13 13. The joint study programmes comply with the requirements prescribed in Section 551, Paragraphs one, two, and seven of the Law on Institutions of Higher Education (if applicable).

Assessment of compliance: Not relevant

- 14 14. Each member of the academic staff has either publications published in reviewed editions within the last six years, including international editions (if they have worked for a shorter period of time, the number of publications shall be in proportion to the work period), or artistic creation achievements (for instance, exhibitions, films, theatre performances, and concert activity), or a five-year practical work experience (except for the experience in the implementation of the study programme) in accordance with the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

Submitted compliance (SAR, Appendix 5).

- 15 R5 - Overall rating

Assessment of compliance: Fully compliant

The study program shows full compliance with all previous requirements.

Requirements (R6-R8)

- 1 R6 - The compliance of the study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision with the conditions for the implementation of the study programme and ensuring the achievement of the learning outcomes.

Assessment of compliance: Fully compliant

The study provisions generally are developed enough to ensure the conditions for the implementation of the study programme. The informative (including library), material, technical and financial provisions are appropriate for the implementation of study programme and ensure the achievement of the learning outcomes

- 2 R7 - The compliance of the qualification of the academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments.

Assessment of compliance: Fully compliant

The qualification of the teaching staff members enables the achievement of the aims and learning outcomes of the study programme and the relevant study courses. The guest professors from foreign universities are involved in the study programme. Several of the teaching staff involved in the study process are industry professionals.

- 3 R8 - The study programme leading to the master or doctoral degree is based on the advances and findings in the relevant field of science or artistic creation.

Assessment of compliance: Not relevant**Conclusions by specifying the strengths and weaknesses**

Professional bachelor study programme "Land Management and Surveying" provides a professional bachelor degree in Land Management and Surveying and professional qualification as engineer of land management. The objective of the study programme is to ensure acquisition of theoretical knowledge and working skills for the field of land management and surveying and also continue Master's studies. This study programme is unique in Latvia, it is relevant to the national economy and supports the fulfilment of international greening and sustainability trends. It is eligible to advertise unique study programmes together with interested groups. The study programme follows the requirements of the labour market. It is possible to get the certificate (three different) after two working years.

The SP has two study forms in Latvian and another one in English that will be implemented in the future. Admission requirements are clear, transparent and ensure the quality of the enrolled students. The number of enrolled students has been different yearly.

The number of students dropping out differs yearly. Since the number of dropouts is highest in the first year it requires attention and solutions in the future. A lot of students are working beside their studies because they need income. It is a broader problem, however it is important to consider this aspect during the arrangement of study programmes. For example it is connected with the mobility issue as well. The students are aware about the possibility of going to study abroad, however there are few students who use this opportunity. Outgoing mobility opportunities are used only by full-time students of the study programme, part-time students do not choose it because they do not want to terminate their employment.

The descriptions of the study courses/modules, the traineeship, and the final thesis are clear and its content is relevant and complementary. The study content is regularly improved, lastly in the academic year of 2019/2020. Development of study programmes has been done together with specialists and employers in the field. Lectures from the industry and institutions have involved teaching some practical topics.

The study implementation methods are traditional that contribute to the achievement of the aims and learning outcomes. Student-centred learning and teaching principles are taken into account. It is worth mentioning that problem-based learning and metacognitive principles are used. As it is a practical speciality then the study programme consists of a traineeship (26 CP totally) which aims to give students the opportunity to strengthen their theoretical knowledge.

At the end of each semester, in the LLU e-environment, a student survey is conducted on the quality of the study process and the work of the teaching staff. Still, students' participation in these surveys is not always active. The Department of Land Management and Geodesy has developed questionnaires for students, graduates and employers to get additional information for lectures and study process. Students can influence the study process through the regular meetings or feedback of study courses.

The study provision, informative provision (including libraries), material and technical provision, and financial provision comply with the specific features and the conditions for the implementation of the study programme, create the prerequisites for the achievement of the learning outcomes, and indicate the possibility to ensure a high-quality study process also in the future. There is an electronic environment LLU IS, Fundamental Library of LLU is well developed (rooms are modern and comfortable) and it offers the use of several databases. It is possible to use the services online and also from outside of the campus. The Department of Land Management and Geodesy has enough rooms (classrooms, laboratories) and other equipment including geodetic instruments for carrying out the studies. Lately modern toolkits have been acquired. The suggestion is to look over the Department rooms and consider modernising this environment. At the moment it is not visually appealing, for example posters and information in hallways are outdated, they are reminiscent of the Soviet period. The GIS Competence Centre and a Calibration Laboratory gives additional possibilities for the studies and research. There are agreements with the State Land Service on the use of cadastral information. There is monetary cover for study places. The teaching staff in the Department of Land Management and Geodesy responds to the demands of the study programme. The study programme implemented by the Department of Land Management and Geodesy is interdisciplinary, it involves lectures from different structural units of LLU and also professionals from outside the university.

The Department of Land Management and Geodesy consists of 17 persons in 2019/2020. There are positive trends in the number of positions. The largest share is in the groups of lecturers (34%) and after that the group of assistant professors (30%). The majority of lecturers in the study programme are aged 31 to 40. The changes in the teaching staff of the study programme since the 2015/2016 academic year have a positive dynamic. The Land Management and Surveying study programme is interdisciplinary and several structural units of LLU besides the Department of Land Management and Geodesy have been involved for teaching and also professionals from outside the university. That enables better cooperation between teaching staff inside the LLU and also between teaching staff and professionals. Despite the study programme being interdisciplinary there is still a need to facilitate the common courses for the students from different study programmes which helps to get familiar with other fields.

The qualification of teaching staff members involved in the implementation of the study programme complies with the requirements for the implementation of the study programme. The lecturers who are involved in this study programme have publications or practical work experience. A lot of persons who have been involved in this study programme have publications and also practical work experience. The teaching staff of the Department of Land Management and Geodesy actively improves their qualifications. The guest professors from foreign universities are involved in the study

programme. They are from Lithuania, Ukraine and Poland. It is essential to involve the guest lectures/professors from the Western Europe countries as well. The teaching staff of the Department of Land Management and Geodesy implements scientific research they have published 140 publications and 155 reports.

Strengths:

1. Unique study programme (Land Management and Surveying) in Latvia that is relevant to the national economy and supports the fulfillment of international greening and sustainability trends.
2. The study programme follows the requirements of the labor market, it is possible to get the certificate (three different) after two working years.
3. Admission rules are clear and ensure the high quality of enrolled students.
4. English study form besides Latvian is established and will be implemented in the future.
5. Up-to-date curriculum of the professional bachelor study programme "Land Management and Surveying".
6. Student-centred learning and teaching are broadly applied in study courses.
7. Students have the possibility to be involved in study process assessment.
8. Mandatory traineeship has enhanced the practical part of the professional bachelor study programme "Land Management and Surveying"; a network of LLU partners and Alumni ensure traineeship possibilities to the students of the programme domestic companies.
9. Well-developed technical infrastructure, equipment, digital technologies, which are suitable and good enough for the basic knowledge.
10. Well-developed Fundamental Library and premises, good access to various databases and online accessibility also from outside of the campus.
11. The GIS Competence Center, a Calibration Laboratory, has enough instruments for land surveying studies.
12. The programme has the appropriate qualification of teaching staff - 50% having PhD degree and 43% – Master's degree.
13. Some lecturers who teach the specialization study courses at LLU are professionals at the same time involved in business companies and are certified specialists.
14. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals.

Weaknesses:

1. Lack of cooperation (integration and synergy) within students from other programs and SF in LLU.
2. Lack of cooperation with institutions from Western European countries.
3. The study programme is not as popular – as a result, there are vacant study places that are financed by the state.
4. Questionable feasibility and potential of the English program – before implementing the program, it is needed to monitor the input, labor investments, and returns, also inspecting potential student numbers regarding enrolment.
5. A high number of dropouts especially during the first year.
6. Students' participation in the feedback surveys is not active.
7. A lot of students are working during their studies.
8. Low level of encouraging and motivating students to take part in mobility programs.
9. Several VBF faculty building premises require update and renovation, in both – energy efficiency and contemporary outlook.
10. Visually appealing, modern, up-to-date environment should be created and maintained for the study process. Posters and information in hallways are outdated, "oldschool", reminiscent of the Soviet period.
11. Insufficient support from scholarships – high ratio of students are working beside their studies.

12. Shortage of the guest lectures/professors from Western European countries.

Evaluation of the study programme "Land Management and Surveying"

Evaluation of the study programme:

Good

6. Recommendations for the Study Programme "Land Management and Surveying"

Short-term recommendations

To create a conceptual plan of action in order to facilitate collaboration and integration between the related studies and study courses within the SF (and other study programmes).

Evaluate the feasibility of the English study form before its implementation at the same time searching for possibilities to increase the number of potential foreign students in order to ensure reasonable future existence and development of the English study form.

Analyse the use of rooms and elaborate the renovation possibilities.

Elaborate the cooperation possibilities (study, research) with the Western European countries, universities.

SP director should follow up to the new prof. standard and evaluate SP conformity accordingly.

Consider modernising the Department rooms, up to date posters and information in hallways.

Long-term recommendations

Create the synergy between study courses and study assignments within the SF (and other study programmes)

Develop cooperation with the Western European countries through guest lectures/professors and joint projects.

Evaluate issues to encourage and motivate students to take part in mobility programs.

To find possibilities how to diminish students dropping out from study programmes.

Advertise the (Latvian) study programme (and profession in general) together with the interested groups, as this study programme is unique in Latvia.

Update and renovate premises.

II. "Civil Engineering" ASSESSMENT

II. "Civil Engineering" ASSESSMENT

1. Indicators Describing the Study Programme

Analysis

1.1. The Professional Bachelor study programme "Civil Engineering" implemented in Latvian language provides a professional bachelor's degree in Civil Engineering and qualification of Building Civil Engineer. Updated professional qualification standard "Building Civil Engineer" has been submitted for approval to the National Centre for Education of the Republic of Latvia and was

approved on 13th October 2021. After completion of the Bachelor's programme, the professional Bachelor's degree in the sector (area of professional activity) and the 5th level professional qualification is awarded. There are full-time studies with four years and six months and part-time extramural studies with five years duration.

The title of the professional bachelor study programme Civil Engineering reflects the construction industry's normative framework and multifaceted nature, which is included in the study programme plan in the form of study courses and topics. During the reporting period, the duration of studies of the professional bachelor study program Civil Engineering was changed, and a new form of implementation was created. On 13.05.2020, at the Senate of the LLU meeting, a modified study programme with a study duration of 4.5 years and a volume of 180 CP was approved. Before, the study duration was five years (200 CP). Also, the qualification to be awarded in the study programme was specified, which was changed from the qualification of a Civil Engineer to that of a Building Civil Engineer.

LLU is the only higher education institution in Latvia that offers graduates of the first level professional higher education study programmes Civil Engineering to enter the LLU professional bachelor's study programme Civil Engineering in the later stages and within 2 or 3 years, obtaining the qualification of a Building Civil Engineer. Such an opportunity is available both for the graduates of the first level programme of the Latvia University of Life Sciences and Technologies, as well as for the graduates of the first level professional higher education study programmes of the Riga Building College (RCK), Rezekne Academy of Technologies (RTA) and Vidzeme University of Applied Sciences (ViA).

From the SAR and Appendix No. 1 significant decrease in the number of students is observed when moving from the first year to the second, also in the last year of studies. Students are offered the opportunity to transition from student status in the programme to listener status at the LLU Lifelong Learning Center, which is actively used by some students. LLU students have an opportunity to transfer from one study programme to another by academic recognition of already completed study courses. The professional Bachelor's study programme "Civil Engineering" complies with the Cabinet Regulation No. 512 "Regulations on the State Second Level Professional Higher Education Standard", and the content meets the requirements for the mandatory content of a Bachelor's programme (Appendix No. 2). The name of the professional bachelor study programme Civil Engineering, the degree to be acquired, the aims, objectives, learning outcomes, and admission requirements are interrelated, defined and included in study courses descriptions (Appendix No. 5).

Mapping of the study courses for the achievement of the learning outcomes of the study programme is provided (Appendix No. 6), which enables experts to see precisely how specific learning outcomes of individual courses are connected with learning outcomes of the study programme and how they contribute to their achievement. However during the site visit and based on SAR, it is visible that there is no cooperation with other LLU study programs, developing integrated studies and synergies in course assignments and encouraging a cross-disciplinary study environment in general.

Conclusions by specifying the strengths and weaknesses

Full-time and part-time Professional bachelor study programme Civil Engineering is implemented by LLU in the SF Architecture and Construction, graduates are granted Professional bachelor degree in Civil Engineering, and Building Civil Engineer qualification is provided. Admission requirements are clear, transparent and ensure the quality of the enrolled students. Studies in the speciality of civil engineering at LLU are practically oriented, providing competency-based education. Aims,

objectives, learning outcomes and admission requirements of the professional bachelor study programme Civil Engineering, in general, are interrelated and comply with the SF Architecture and Construction. LLU students have an excellent opportunity to transfer from one study programme to another (BA level) by academic recognition of already completed study courses.

Strengths:

1. Admission rules ensure high quality of enrolled students;
2. Graduates of the first level professional higher education study programmes Civil Engineering have the opportunity to enter the professional bachelor study programme Civil Engineering in the later stages and within 2 or 3 years, obtaining the qualification of a Building Civil Engineer.

Weaknesses:

1. The decrease in the number of students/number and student dropouts;
2. Lack of cooperation with other LLU study programs in developing integrated studies and synergies in course assignments and encouraging a cross-disciplinary study environment in general.

2. The Content of Studies and Implementation Thereof

Analysis

2.1. Descriptions of study courses, the traineeship, and the final thesis are clear, available to students and faculty, and in general, comply with the provisions outlined in the regulatory enactments. The study content is relevant and complementary and it complies with the aims of the professional Bachelor study programme "Civil Engineering", ensures achievement of general learning outcomes, meets the needs of the relevant industry and the scientific trends. It should be highlighted that study content is up-to-date and follows the current tendencies in civil engineering.

The topics of the students' diploma projects reflect the current events in the field because all situations and projects are real, related to certain customers and are developed as a variant of a project. The topics of diploma projects reflect civil engineering trends in Latvian municipalities and their variations from year to year. For example, there have been years when there is more funding for farm buildings that are part of a block of industrial buildings (examples in SAR p. 235). The best qualification works are marked in the reports of the Examination Commission. In 2019, the following diploma projects were marked as the best works: Multifunctional cultural centre in Ventspils municipality and Tennis hall in Cēsis. Upon receipt of the Diploma, the honorary diplomas from the Latvia Association of Civil Engineers (LBS) are also awarded to the best graduates, thus stimulating higher achievements. The best works are also published in the LBS magazine "Būvinženieris" and are awarded in competitions of industry professionals. Experts suggest the focus should be on rural buildings and materials and it would be a good selling point and direction to develop.

The mandatory traineeship, which is a part of the study programme, is beneficial and adds value to the study process, it has received positive feedback from the students, graduates and employers. Students find their own traineeship positions, and many of them choose to do so through the network of LLU partners and Alumni, SAR p. 234. There is an opportunity for the ERASMUS+ programme for a traineeship abroad. All traineeships follow a protocol, the traineeship agreement is drawn up appropriately, and a tripartite agreement is prepared (LLU - Traineeship company - student). The professional traineeship in the programme "Civil Engineering" in the amount of 24 CP is planned for full-time students in the following directions - Engineering Geodesy 3CP; Engineering Geology 1CP and Construction Management 20 CP.

The new professional standard is in the harmonisation stage and the requirements included in it have already been incorporated into the improved and updated professional Bachelor's study programme "Civil Engineering". In general, course outlines comply with the already defined aims of the professional bachelor study programme "Civil Engineering" and meet the needs of the relevant

industries and scientific research. Bachelor or other degree from LLU is considered a high-quality sign in the eyes of employers. Graduates of LLU are successfully employed already during or after the studies, which proves that the study programme meets the needs and requirements of the market.

2.2. The study implementation methods, including the evaluation methods, contribute to the achievement of the aims and learning outcomes of the study courses and the professional bachelor study programme "Civil Engineering" how they are defined at this moment. Appendix No. 3 contains information on the compliance of the qualification to be obtained in the professional Bachelor's study programme "Civil Engineering" with the professional standard "Building Civil Engineer". The content of the programme and study courses is in close relation with actualities in the field of construction. The content of the study courses are regularly updated in accordance with the needs of the construction industry and the labour market, as well as the latest scientific innovations, technologies and development trends. For example, more extensive learning of construction mechanics, the introduction of BIM, digitization of the industry (BIS). Study course programmes are reviewed and updated in accordance with the learning outcomes of the study programme.

The methods of the study programme implementation are based on the gradual and project-oriented acquisition of knowledge, skills and competencies. Following principles are realised: the study courses are designed according to the thematic principle, in part-time studies lectures, laboratories and practical works or seminars are organised in the form of sessions, which take place twice a year for three weeks, the study process includes guest lectures from specialists working in various companies.

Students use Moodle e-studies, each student and lecturer has an LLU e-mail, it is also possible to communicate in the e-learning environment, students provide their assessment of the content of the study course and the lecturer's work at the end of each semester. After meeting with students and lecturers, it is evident that filling in surveys for assessment of the content of study courses and lecturer's work are not obligatory, and no sufficient feedback is received.

According to SAR, the principles of student-centred education in the study programme are being implemented. During the on-site visit, students have mentioned that they are aware of the procedures and principles of student-centred education, but they did not give examples of implementation. Students should be better informed about these principles.

2.3. According to SAR, the outcomes of the surveys conducted among the students, employers, and graduates are used to improve the quality of studies. During the meeting with academic/teaching staff it was concluded there are no surveys for lecturers (academic staff), and they do not have the opportunity to provide their assessment of the content of the study course and the students' work at the end of each semester. LLU have developed surveys and general feedback procedures for students, graduates, employers and PhD students. Exception is the lack of surveys for academic staff. Based on the meetings with the staff, students etc., surveys are conducted regularly but they are not mandatory and due to the small number of completed surveys there is the possibility that the results are not statistically relevant. Surveys and feedback should be defined as obligatory for all involved parties of the study process – students, staff, graduates, employers. Students and faculty confirmed that the surveys are regularly conducted and afterwards taken into consideration, and necessary adjustments, if any, are made. Feedback from the employers in the sector "Civil Engineering" is usually compiled and analysed by the study directors, which noted that the survey data is used to improve the study process and often results in adjustments of the studies.

2.4. The students avail themselves of the incoming and outgoing mobility opportunities, and the

learning outcomes achieved during such mobility are recognised. The mobility of students in the Civil Engineering bachelor programme is mainly related to the ERASMUS + agreements concluded by the LLU, as well as to international tripartite cooperation agreements in the organisation of conferences and summer schools. Students also have the opportunity to participate in the European Project Week (EPW), organised by universities from 5 countries with a speciality in civil engineering, where the organising committee also includes a professor from the LLU study programme "Civil Engineering".

Fourteen students of LLU went to study at foreign universities, and twenty-two students of LLU participated in traineeships in companies during the reporting period. During the on-site visit and meetings, experts can conclude that none of the students and staff members has experience in Erasmus incoming and outgoing mobility thus leading to the conclusion that mobility opportunities have not been used enough.

As for incoming foreign students, the staff points out that the program is not adjusted to foreign students and in the case of international students there is extra work for courses to be prepared for those few students.

Incoming mobility of students is mainly related to the cooperation between the University of Trás-os-Montes e Alto Douro (UTAD) in Portugal and Wroclaw University of Environmental and Life Sciences (Poland) and the Civil Engineering programme of LLU (Latvia). An example of good practice is the International Summer School for Civil Engineering Students, where 14 students arrived in Latvia from Poland and Portugal, including two Spanish students who were Erasmus+ mobility students in Portugal.

Conclusions by specifying the strengths and weaknesses

Descriptions of the study courses, traineeship, and thesis writing rules are developed and available to students, and in general, comply with the provisions outlined in the regulatory enactments. The content of study courses is relevant and complementary. It complies with the aims of the professional bachelor study programme "Civil Engineering", ensures the achievement of the general learning outcomes, and meets the needs of the relevant industry and the scientific trends. There is evidence of the implementation of student-centered learning and teaching. Ensured traineeship, incoming and outgoing mobility opportunities are provided but underused. Students, graduates, and employers confirmed that the surveys are conducted and afterward taken into consideration, and necessary adjustments, if any, are made. Only a few surveys are conducted every academic year because they are not obligatory. During the meeting with the students, they were not aware of the guest lecturers. Employers and alumni are willing to give guest lectures (as they have told Experts at the on-site meeting). Experts suggest increasing the number of guest lectures.

Strengths:

1. Up-to-date curriculum of the professional bachelor study programme "Civil Engineering".
2. Student-centred learning and teaching are broadly applied in study courses; students have the possibility to be involved in study process assessment.
3. Mandatory traineeship has enhanced the practical part of the professional bachelor study programme "Civil Engineering"; a network of LLU partners and Alumni ensures traineeship (and employment) possibilities to the students of the programme domestic and abroad companies.
4. Bachelor's degree from LLU is considered a high-quality sign in the eyes of employers.

Weaknesses:

1. Lack of surveys for academic staff to provide their assessment of the content of the study course and the students' work at the end of each semester.

2. Surveys for assessment of the content of study courses and lecturer's work are not obligatory, and no sufficient feedback is received.
3. Low motivation for students (and staff) to take part in mobility programs.
4. Lack of an appropriate system of evaluating and motivating staff to work with incoming students.
5. The insufficient number of guest lectures (professionals from industry).
6. Foreign students are not involved/do not meet and do not intersect with local students.

3. Resources and Provision of the Study Programme

Analysis

3.1. The study provision, scientific support, informative provision (including libraries), material, and technical provision in LLU is well equipped (enough). In a SAR and on a site visit, Experts were provided with information and introduction to the resources of the study program, which consist of three main groups - equipment, software and literature.

There are several good (some of them newly) equipped laboratories, which are being involved in study and science processes of the study programme implementation: training laboratory for construction materials; building physics laboratory; research and training laboratories of structural engineering; soil mechanics training laboratory; laboratory of pumps and the hydraulic modelling laboratory; water supply and sewerage laboratory; land surveying training laboratory and also GIS Competence Center (established within the framework of the Latvian-Lithuanian cross-border cooperation project). Special function for this study programme is the acoustics laboratory, which is designed for testing the environment. This laboratory was exclusively welcomed by social partners of the Faculty, who paid special attention to these premises and would prefer to collaborate with the Faculty in order to test new materials.

The VBF has good enough computer equipment and software for all basic knowledge necessary to prepare civil engineers and is equipped with BIM support software. Several computer auditoriums (around 25 workplaces) are available for students; the classrooms are equipped with interactive displays and whiteboards. Based on the information received on the site visit, the equipment is accessible for the students after classwork. Additionally, it is highly recommended by Experts and almost all the interviewers (employees, teachers, students) to introduce the newest versions of software. It would be beneficial to integrate into the study programme courses enacting modern up-to-date soft (f.e. RFEM Dlubal, Tekla Structure, IDEA Static). There are always possibilities for development and improvement, for instance, software, and as a result more powerful computers for new software.

LLU has a well-developed Fundamental library and premises, with good access to various databases and online accessibility, also from outside the campus, which is very valuable, especially during the pandemic period.

In addition, ample space of the Faculty has considerable potential to recruit the areas. Experts noticed underused premises of Building of Environment and civil engineering faculty and critical condition of some of them. The building requires update and renovation, in both – energy efficiency and contemporary environment, outlook. In SAR SWOT analyse (p. 35), a weakness is mentioned – the lack of territory for the establishment of outdoor laboratories to implement the study process and scientific activity of the study programme. However, there are plans and potential to develop them. Students have an opportunity to use the Faculty of Environment and Civil Engineering Information Centre with free access to the LLU Fundamental Library database (SAR p. 201) and have some spaces for individual work. Also, two computer classes with 49 are available for students (SAR p. 202) in the programme, which are accessible for them for after class work.

LLU has a well-organised structure of incomes and expenditures of the general budget of the HEI, which, based on the information presented in SAR (p. 203), is prepared following the Law on the State budget, enacted annually by the Latvian Parliament and the Rector of LLU. The distribution is also being reviewed and approved by all necessary parties, collected into the Working group on Resource Use. Taking into consideration this fact, it can be stated that the financial provision of this study programme complies with the features needed to implement it.

3.2. Not applicable

Conclusions by specifying the strengths and weaknesses

Resources and provision of the Study Programme are well equipped (enough), with several good (some of them newly) laboratories, a well-developed Fundamental library and premises, and access to various databases and online accessibility. The VBF faculty has good computer equipment and software for all basic knowledge necessary to prepare civil engineers. Additionally, there are always possibilities for development and improvement, for instance, software, and as a result more powerful computers for new software. Faculty's premises have considerable potential for development and need to be renovated to improve the energy efficiency and decent outlook.

Strengths:

1. Well-developed technical infrastructure, equipment, digital technologies, which are suitable and good enough for implementing the SP.
2. Well-developed Fundamental library and premises, good access to various databases, and online accessibility also from outside of the campus.
3. Ample space of the Faculty has considerable potential to recruit the areas.
4. Big potential of acoustics laboratory, designed for testing the environment.

Weaknesses:

1. The building requires update and renovation, in both – energy efficiency and decent outlook.
2. No outdoor laboratories for practical training – however, there are plans and potential to develop them.

4. Teaching Staff

Analysis

4.1. The number of academic staff, involved in the professional higher education Bachelor's study programme "Civil Engineering", based on SAR of the programme has not changed much. The positive fact is that more high level academic staff has been involved in teaching (assistant professors, associated professors (incl. emeritus), while the amount of new lecturers decreased a little through that time period. This record shows that the academic personnel are raising qualifications and being promoted to higher-level positions (12 of the teaching staff have been promoted). Also, it is worthwhile that the Faculty involves new lecturers, who are also doctoral students of LLU doctoral study programme Civil Engineering.

Based on SAR, some lecturers who teach this specialisation study courses at LLU are at the same time representatives from business companies and basically work in two places. This is an excellent practice that helps the students and university receive the newest up-to-date material about the study course, which is being taught to them. This circumstance was discussed very positively on a site visit in the meeting with university staff and students. Students are very satisfied with those lectures, who have double experience (academic and industry).

4.2. It's price-worthy that the university took into account the previous experts' recommendation to reduce the average age of the academic staff and has been starting to implement that. More academic staff members under the age of 45 have been attracted to the SF. This fact was approved by several parties on a site visit as well. However, it still feels that the level of English knowledge of some teachers needs to be increased. According to the opinion of the students – they are happy with the level of qualification of the teachers, especially that many of them are representatives from industry. This is very much worth it.

In addition, basing on SAR's Table 4 (p. 248) about the conformity of qualification of the teaching staff, the qualification of the teaching staff involved in the programme complies with the conditions of the study programme implementation and the requirements of the regulatory enactments (Table 4).

4.3. Not applicable

4.4. To integrate the newest up-to-date information in the study process, it is crucial that academic staff actively implement scientific research, especially in the field, related to the content of the study programme. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals. However, not all of those projects are strictly in the content of the study programme. Some of them are participating in their own science initiatives. This is a favorable circumstance, but from another hand does not allow developing the recommence study processes. Moreover, proactive participation in international research projects is recommended. A more considerable initiative is needed from the Faculty management and the project management/development department to initiate the research project collaboration (on National and International levels). Additionally, more active involvement of students in science projects is highly recommended.

4.5. Based on SAR's information (p. 256) – the ratio between the number of students and the teaching staff of professional higher education Bachelor's study programme Civil Engineering programme is 13.4 (on 01.09.2020.), which is satisfactory. There are several activities in the Faculty, which shows that the mutual collaboration between the teaching staff and partners outside the university is being implemented to promote cooperation and ensure interrelation between the study courses/modules (research contracts with companies from the industry; European Union-funded research projects; development of laboratories; taking part in international professional and scientific, organisations and working groups; etc. (SAR p. 252-254)

Conclusions by specifying the strengths and weaknesses

The teaching staff, involved in the professional bachelor study programme Civil Engineering, comply with the prescribed requirements and relevant criteria, obligatory to implement this study programme. There are also excellent practices in the Faculty. For example, a part of the teaching staff are representatives from business organisations, which brings added value to the quality of the study programme and helps students and the university to receive the newest up-to-date material. However, minor deficiencies, like the insufficient level of English knowledge of some teachers, have been identified. These deficiencies, placed in the section "weaknesses", still need to be improved.

Strengths:

1. Faculty involves new lecturers, who are also doctoral students of LLU;
2. More high-level academic staff has been involved in teaching (assistant professors, associated professors (incl. emeritus);
3. Some lecturers who teach this specialization study courses at LLU are at the same time

representatives from business companies;

4. More academic staff members under the age of 45 have been attracted to the SF;
5. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals.

Weaknesses:

1. The level of English knowledge of some teachers needs to be increased;
2. More considerable initiative is needed from the Faculty management and the project management/development department to initiate the research project collaboration;
3. The number of new lecturers has decreased.

5. Assessment of the Compliance of the Study Programme "Civil Engineering"

Requirements

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

Assessment of compliance: Fully compliant

The sample of the diploma is provided and complies with the procedure by which state-recognised documents of higher education are issued - annexes section "Description of the Study Direction - Other mandatory attachments"

2. Documents confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued.

Assessment of compliance: Fully compliant

Provided compliance and AGREEMENT between LATVIA UNIVERSITY OF LIFE SCIENCES AND TECHNOLOGIES and RIGA TECHNICAL UNIVERSITY confirm that RTU shall undertake and provide learning opportunities in relevant programmes for students of LLU in case the implementation of the study programme is discontinued. The Agreement is applicable to the Professional Bachelor's study programme "Civil Engineering" contained in the fields of study Architecture and Construction. File agreement_RTU_LLU in the annexes section "Description of the Study Direction - Other mandatory attachments"

3. Document confirming that the higher education institution/ college guarantees to the students a 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 higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" provided and confirms that if SPis discontinued and students do not wish to continue their studies at RTU, they are reimbursed their tuition fees - annexes section "Description of the Study Direction - Other mandatory attachments"

4. 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

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" confirms (paragraph 7) that Latvian language proficiency of the teaching staff involved in the implementation of SP complies 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 – annexes section "Description of the Study Direction - Other mandatory attachments"

- 5 5. 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.

Assessment of compliance: Not relevant

- 6 6. 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.

Assessment of compliance: Not relevant

- 7 7. 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 Institutions of Higher Education.

Assessment of compliance: Not relevant

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

Assessment of compliance: Fully compliant

Study agreement provided in the appendix – annexes section "Description of the Study Direction - Other mandatory attachments".

- 9 9. 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 56.1, Paragraph two and Section 56.2, Paragraph two of the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

Submitted descriptions - 5 appendix in the annexes section "III. Description of the Study Programme - 1. Indicators Describing the Study Programme".

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

Assessment of compliance: Fully compliant

The professional standard "Building Civil Engineer" is approved on October 13, 2021, and the programme "Professional Bachelor's study programme "Civil Engineering" is conformed to this new standard. A version of the standard is enclosed in the documentation (Appendix No.3).

- 11 11. 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 Institutions of Higher Education.

Assessment of compliance: Not relevant

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

Assessment of compliance: Fully compliant

Compliance submitted - conformity of the Professional Bachelor's study programme "Civil Engineering" to the national standard of education *According to the Cabinet of Ministers Regulations No. 512 "Regulations on the National Standard of Second Level Professional Higher Education" of 26 August 2014 <https://likumi.lv/doc.php?id=268761>, 2 appendix in the annexes section "III. Description of the Study Programme - 1. Indicators Describing the Study Programme"

- 13 13. The joint study programmes comply with the requirements prescribed in Section 551, Paragraphs one, two, and seven of the Law on Institutions of Higher Education (if applicable).

Assessment of compliance: Not relevant

- 14 14. Each member of the academic staff has either publications published in reviewed editions within the last six years, including international editions (if they have worked for a shorter period of time, the number of publications shall be in proportion to the work period), or artistic creation achievements (for instance, exhibitions, films, theatre performances, and concert activity), or a five-year practical work experience (except for the experience in the implementation of the study programme) in accordance with the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

SAR, p. 247.-254., Appendix to SAR, 5 appendix in the annexes section "III. Description of the Study Programme - 1. Indicators Describing the Study Programme".

- 15 R5 - Overall rating

Assessment of compliance: Fully compliant

Study program complies with all previous requirements.

Requirements (R6-R8)

- 1 R6 - The compliance of the study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision with the conditions for the implementation of the study programme and ensuring the achievement of the learning outcomes.

Assessment of compliance: Fully compliant

LLU has all the necessary resources (technical, financial, informative) to be able to implement the professional bachelor study programme Civil Engineering to fulfil R6 criterion. (SAR, assessment in the LLU and Experts analysis, chapter 3).

- 2 R7 - The compliance of the qualification of the academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments.

Assessment of compliance: Fully compliant

The teaching staff, involved in the professional bachelor study programme Civil Engineering, comply with the prescribed requirements and relevant criteria, obligatory to implement this study programme.

- 3 R8 - The study programme leading to the master or doctoral degree is based on the advances and findings in the relevant field of science or artistic creation.

Assessment of compliance: Not relevant**Conclusions by specifying the strengths and weaknesses**

The professional bachelor study programme Civil Engineering implemented in Latvian language provides a professional bachelor degree in Civil Engineering and Building Civil Engineer qualification. After completion of the Bachelor's programme, the professional Bachelor's degree in the sector (area of professional activity) and the 5th level professional qualification is awarded. There are full-time studies with four years and six months and part-time extramural studies with five years duration. The title of the professional bachelor study programme Civil Engineering reflects the construction industry's normative framework and multifaceted nature, which is included in the study programme plan in the form of study courses and topics. Significant decrease in the number of students is observed when moving from the first year to the second, also in the last year of studies. Students are offered the opportunity to transition from student status in the programme to listener status at the LLU Lifelong Learning Center, which is actively used by some students. Aims, objectives, learning outcomes and admission requirements of the professional bachelor study programme Civil Engineering, in general, are interrelated and comply with the SF Architecture and Construction. LLU students have an excellent opportunity to transfer from one study programme to another (BA level) by academic recognition of already completed study courses. The mandatory traineeship, which is a part of the study programme, is beneficial and adds value to the study process, it has received positive feedback from the students, graduates and employers. There is evidence of the implementation of student-centred learning and teaching. Ensured traineeship, incoming and outgoing mobility opportunities are provided but underused. Students, graduates, and employers confirmed that the surveys are conducted and afterwards taken into consideration, and necessary adjustments, if any, are made..

Resources and provision of the Study Programme are well equipped (enough), with several good (some of them newly) laboratories, a well-developed Fundamental library and premises, and access to various databases and online accessibility. The VBF faculty has good computer equipment and software for all basic knowledge necessary to prepare civil engineers. Additionally, there are always possibilities for development and improvement, for instance, software, and as a result more powerful computers for new softs. Faculty's premises have considerable potential for development and need to be renovated to improve the energy efficiency and decent outlook.

The teaching staff, involved in the professional bachelor study programme Civil Engineering, comply with the prescribed requirements and relevant criteria, obligatory to implement this study programme. There are also excellent practises in the Faculty. For example, a part of the teaching staff are representatives from business organisations, which brings added value to the quality of the study programme and helps students and the university to receive the newest up-to-date material. However, minor deficiencies, like the insufficient level of English knowledge of some teachers, have been identified. These deficiencies, placed in the section "weaknesses", still need to be improved.

Study program complies with all the key points, which facilitate the assessment of the compliance of the study program with the requirements prescribed in the Law on Institutions of Higher Education and other regulatory enactments. All required documents, justifications are submitted and evaluated as valid.

Whilst assessing the compliance of the study programme with the prescribed requirements, minor deficiencies have been identified.

Strengths:

1. Admission rules ensure high quality of enrolled students;
2. Graduates of the first level professional higher education study programmes Civil Engineering have the opportunity to enter the professional bachelor study programme Civil Engineering in the later stages and within 2 or 3 years, obtaining the qualification of a Building Civil Engineer.
3. Up-to-date curriculum of the professional bachelor study programme "Civil Engineering";
4. Student-centred learning and teaching are broadly applied in study courses; students have the possibility to be involved in study process assessment;
5. Mandatory traineeship has enhanced the practical part of the professional bachelor study programme "Civil Engineering"; a network of LLU partners and Alumni ensures traineeship (and employment) possibilities to the students of the programme domestic and abroad companies.
6. Bachelor degree from LLU is considered a high-quality sign in the eyes of employers.
7. Well-developed technical infrastructure, equipment, digital technologies, which are suitable and good enough for implementing the SP.
8. Well developed Fundamental library and premises, good access to various databases and online accessibility also from outside of the campus;
9. Ample space of the Faculty has considerable potential to recruit the areas;
10. Big potential of acoustics laboratory, designed for testing the environment;
11. Faculty involves new lecturers, who are also doctoral students of LLU;
12. More high level academic staff has been involved in teaching (assistant professors, associated professors (incl. emeritus);
13. Some lecturers who teach this specialisation study courses at LLU are at the same time representatives from business companies;
14. More academic staff members under the age of 45 have been attracted to the SF;
15. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals.

Weaknesses:

1. The decrease in the number of students/number – student dropouts.
2. Lack of cooperation with other LLU study programs and the development of multidisciplinary study courses.
3. Lack of surveys for academic staff to provide their assessment of the content of the study course and the students' work at the end of each semester.
4. Surveys for assessment of the content of study courses and lecturer's work are not obligatory, and no sufficient feedback is received.
5. Low level of encouraging and motivating students (and staff) to take part in mobility programs.
6. Lack of an appropriate system of evaluating and motivating staff to work with incoming students.
7. The insufficient number of guest lectures (from professionals from the industry).
8. Foreign students are not involved / do not meet / do not intersect with local students.
9. The VBF faculty building requires update and renovation, in both – energy efficiency and decent outlook.
10. No outdoor laboratories for practical training – however, there are plans and potential to develop them.
11. The level of English knowledge of some teachers needs to be increased.
12. More considerable initiative is needed from the Faculty management and the project management/development department to initiate the research project collaboration.

Evaluation of the study programme "Civil Engineering"

Evaluation of the study programme:

Good

6. Recommendations for the Study Programme "Civil Engineering"

Short-term recommendations

Improve the cooperation with other LLU study programs and the development of multidisciplinary study courses.

LLU should introduce surveys for academic staff to provide their assessment of the content of the study course and the student's work at the end of each semester.

Surveys on feedback should be determined as obligatory for all involved parties of study process – students, staff, graduates.

SP Director should introduce surveys as obligatory for employers (e.g. within the documents related to the implementation of traineeship).

Increase the number of guest lectures (from professionals), additional efforts are needed to promote guest lectures among the students.

Increase activity in ERASMUS+ programme for a traineeship abroad.

More active involvement of students into the science projects is highly recommended.

Support, organise and continue improvement of the level of English skills for academic staff.

It is highly recommended to follow and introduce the newest / up-to-date versions of computer software (e.g. RFEM Dlubal, Tekla Structure, IDEA Static).

Cooperation btw SP, different SF, common course projects, assignments.

Long-term recommendations

Evaluate possibilities to provide potentially efficient support for students to decrease the number of students dropouts.

Raise the level of support, encouraging and motivation of students to take part in mobility programs.

Work on integration of foreign students with local students.

Apply an appropriate system of evaluating and motivating staff to work with incoming / foreign students; efficient use of human workload is necessary.

LLU management should be concerned about possible renovation of the VBF faculty building. Experts also noticed underused premises in the building, thus more efficient use of facilities should be evaluated. As well as the building requires an update in energy efficiency, HVAC systems and contemporary outlook in general.

Vice dean for science / and faculty should supervise and activate participation in international research projects. Faculty management and the project management/development department need to be involved in order to initiate the research project collaboration (on National and International level).

Recommendation to promote the specialisation of particular study program – what can I learn if I study in LLU? How special would it be if I graduated from LLU? Why do I choose LLU instead of other Universities?

Keeping moving in the same direction regarding the changes of the composition of the teaching staff and the generation change is very commendable.

II. "Landscape Architecture and Planning" ASSESSMENT

II. "Landscape Architecture and Planning" ASSESSMENT

1. Indicators Describing the Study Programme

Analysis

1.1. The academic bachelor study programme "Landscape Architecture and Planning" is 3.5 years (7 semesters) long full-time study programme of 140 credits (210 ECTS) implemented by LLU. The graduates of the program obtain Bachelor's Degree in Engineering in Architecture and Urban Planning. Professional qualification is not provided. The programme is implemented in Latvian and English. Since the past accreditation significant changes have been introduced to BA and MA level programs of landscape architecture and planning of LLU, see SAR, p. 339. In 2009, the SP received the international accreditation of EFLA (European Federation of Landscape Architects), which was a basis to change Bachelor's and Master's studies in the regard to the form of the study in accordance with the Bologna Process (European Higher Education Area, declaration of the European Ministers of Education of 19 June 1999 in Bologna), so that the programmes can be internationally recognized. Overall changes were based on: 1) the basic principles of the Bologna process, 2) recommendations of the International Federation of Landscape Architects (IFLA/ Unesco charter for Landscape Architectural education; Guidance document for recognition or accreditation 3) The Education Standard for Landscape Architects developed by ECLAS (European Council of Landscape Architecture Schools) (ECLAS Guidance on Landscape Architecture Education) 4) Findings and recommendations gained within the EBANELAS project regarding the form of implementation of existing study programs) (SAR, p. 340). The outcome of changes was that the form of study implementation was split into 1) 3 years for BA studies and 2) 2 years for the professional MA degree. After deeper evaluation, experts can recognize and endorse the implemented changes. The studies take place (mainly) in Jelgava, Valdeka castle study building, Lielā Street 2.

Admission requirements set for prospective students differ for Latvian and English study forms: 1) general secondary education or vocational secondary education, 2) entrance examination in pencil drawing technique (by hand). For an English programme – a portfolio of at least 4 still life drawings in pencil hand drawing technique; additionally at least B2 level of English language skills.

The average number of enrolled students varies from 25 to 30 students (14-26 graduates) each year – that is considered to be optimal for a high-quality study process and the demand of the field (SAR, p. 342, Appendix No.2). Since 2018 the study programme is also implemented in English but the number of students is minor (2 graduates in 2020, SAR, p. 342) leading to the conclusion that currently, the English program is not exploited to its full capacity and potential.

The establishment of the field of landscape architecture in Latvia dates back to 1994 and it corresponds with the time when the Landscape architecture program started in LLU. The program formed and still maintains cooperation with the professional organisation – Latvian Association of Landscape Architects. The sub-field “Landscape Architecture and Planning” and the corresponding programs implemented by LLU are the only programs for Landscape architecture and planning in Latvia. Bachelor level program is the first of two consecutive study programmes that generally provides the education necessary for obtaining professional qualifications and the right of independent practice in landscape architecture.

According to SAR (p. 342) the title of the study program is based on the professional standard of the profession of a landscape architect and the guidelines and descriptions of the field defined in the European Landscape Conventions (from the European Landscape Convention: “landscape planning” means consequent future-oriented actions to improve, restore or create new landscapes).

The aim of the SP is “to provide students with the set of knowledge and skills necessary to start practical activity in the field of landscape architecture under the guidance of a certified specialist or to continue studies in the professional Master's study programme to obtain the professional qualification of a landscape architect” (SAR, p. 337). To achieve this aim the programme combines artistic expression skills, creative thinking with humanities, natural sciences, and ecology, and provides training in design methodology and project development and design techniques. BA thesis sums up theoretical and practical knowledge. The name of the program, the degree to be acquired, study results and admission requirements are interrelated, are defined in the program's Regulations and procedures, available on e-learning platform, and included in study courses descriptions. The learning outcomes / study results are achievable and formulated according to the program's tasks corresponding to professional standard (SAR, p. 343) to provide students with the set of knowledge and skills necessary to start practical activity in the field of landscape architecture or continue studies to obtain an MA degree and professional qualification.

Conclusions by specifying the strengths and weaknesses

The academic bachelor study programme “Landscape Architecture and Planning” is 3.5 years (7 semesters) long full-time study programme of 140 credits (210 ECTS) implemented by LLU in Latvian and English. The graduates of the program obtain Bachelor's Degree of Engineering in Architecture and Urban Planning. Professional qualification is not provided. Since the past accreditation, significant changes have been introduced to landscape architecture studies – the form of study implementation was split into 1) 3 years for BA studies and 2) 2 years for the professional MA degree in accordance with the Bologna Process and international standards.

The program implemented by LLU is unique in the Latvian context and HEI offers continuous and successive education in landscape architecture from BA to professional MA, to doctoral studies.

The average number of enrolled students varies from 25 to 30 students but is optimal for a high-quality study process and the demand of the field. Since 2018 the study program is also implemented in English but the number of students is minor (2 graduates in 2020). Thus experts tend to conclude that currently, the English program is unexploited due to the insufficient number of students. There are several factors at play, among them are insufficient attention paid to the systematic popularisation of the English program in Latvia and abroad from the HEI structural units and management. Possibly there is a lack of targeted promotion strategy prior to the establishment of the English study form or in general, there are difficulties to attract and convince foreign students.

The program maintains long-lasting cooperation with the professional organization – Latvian Association of Landscape Architects and is connected with professionals, graduates of the program. The title of the study program is based on the professional standard of the profession of a landscape architect and the guidelines and descriptions of the field defined in the European Landscape Conventions. The name of the program, the degree to be acquired, study results, and admission requirements are interrelated. The aim of the SP is to correspond to the content of the program. The learning outcomes and study results are achievable and formulated according to the program's tasks. As BA and MA programs together form the conformity to the professional standard of Landscape architect BA program provides students with the set of knowledge and skills necessary to start practical activity in the field of landscape architecture and continue studies to obtain a MA degree and professional qualification.

Admission requirements set for entering the program are appropriate putting emphasis on testing hand-drawing skills among other mandatory evaluations. Experts question the need to distinguish entrance requirements between Latvian and English study forms.

Strengths:

1. A unique program in the context of LV with solid traditions and an established fundamental base;
2. SP has undergone significant structural modernization, which notably raised the quality of the education;
3. SP is an integrated quality component of the full cycle of education in landscape architecture, which is available only in LLU;
4. Recent changes in program implementation are based on international standards and principles of the Bologna process;
5. Successive degree programs (BA followed by MA and doctoral studies) and potential to obtain a professional qualification in further studies – within both programs students meet the qualification goals and tasks set in the professional standard;
6. Long-lasting and purposeful cooperation with the professional institution Latvian Association of Landscape Architects and others.

Weaknesses:

1. The program in the English language is unexploited with very few students and is not interrelated with programs in Latvian resulting in the situation when student's "do not cross their paths" and admission requirements set for potential students differ for Latvian and English study forms.

2. The Content of Studies and Implementation Thereof

Analysis

1.1. Overall the descriptions of the study courses, the final thesis are of acceptable quality and comply with the provisions set forth in the regulatory enactments. The content is relevant and complimentary, it complies with the aims of the study programme, ensures the achievement of the learning outcomes. Although the larger part of the courses meets the needs of the relevant industry and the scientific trends, some of the courses however need to be advanced. The programme endured significant changes in the past period before accreditation, but it is highly advisable for the next accreditation period to continue further SP development, continuously advancing the content of studies and modes of implementation.

Optimization and modernisation of the programme were implemented according to the aims of the study programme to contribute to the better achievement of the learning outcomes. There are 3 factors that define the quality of the content of the "Landscape Architecture and Planning" bachelor's SP:

- restructuring of the composition of the courses according to the new (improved) programme;
- activities aimed on the integration of the programme into the HEI, national and international professional network;
- creation of the new courses in order to answer the latest developments in the field.

The composition of the courses was changed from linear thematic to the project-oriented approach (SAR, III, p. 2.2., p. 324). The latter means binding the related/necessary subjects to the case study project. Although some students find the module system more comfortable and less time-consuming, the project-oriented curriculum has higher learning capacity, providing case-related knowledge for immediate application in the project elaboration. It reduces the fragmentation of study courses and topics, helps students to master the subject in a more concentrated way and with a smaller number of examinations per semester.

Activities aimed at the integration of the SP into the HEI, national and international professional network and the needs of the relevant industry and the scientific trends can be valued approvingly (SAR, III, p. 2.2., p. 321-322). The activities are as follows:

- Tight relation of the SP and LLU strategy (SD implements LLU research direction “Urban and rural landscape research and development”). The sustainable use of natural resources for raising the quality of life of the society, defined in the vision of LLU, is the main guiding principle in the implementation of the SP. Experts share the stand on sustainability and quality of life as the key issues in the profession of a landscape architect, which should be pursued and promoted within SP.
- SP is nationally significant and integrated as a collaborator into the network of Latvian educational institutions, where related professions are taught, like RTU, RISEBA, Bulduru darzkopības vidusskola, etc. Teaching staff is also highly integrated into professional circles, organisations ensuring the up-to-date teaching content (SAR, p. 346, Table 3).
- SP was largely aligned with the international professional guidelines and recommendations like IFLA/ UNESCO Charter for Landscape Architectural education; Guidance document for recognition or accreditation, EGLAS Guidance on Landscape architecture Education, as well as with recommendations of Eastern Baltic Network of Landscape Architecture Schools (see SAR, III, p. 1.1., p. 313). The content of the courses is in line with the description of the basic needs of the landscape described in Landscape convention and relevant to actual policies (see SAR, p. 346, Table 3).

The new courses were created, the content and the titles of the existing courses were adjusted to:

- Specific focus laid on the systematic provision of digital knowledge, courses like Basics of Visual Spatial Modelling, Landscape Architectural Design Graphics, Geographical Information System, Digital Tools in Landscape Projects, especially parts II and III, IV, which provide training in drawing 2D programs (AUTOCAD) and 3D modelling (Lumion, Adobe Photoshop, laser cutting). There is a recent development in landscape architectural drawing, which requires a combination of 2D and 3D tools in the software, appropriate for the work with the landscape.
- Interdisciplinary aspects of Landscape architecture and planning strengthened in the courses Introduction to Architectural Phenomenology, Environmental Psychology in Landscape Architecture, Landscape Sociology, Architecture that introduces the principles of mansion design; preparation of graphic materials for construction projects, use of standard units in architectural design work.
- The technical aspects of landscape architecture are taught in courses like Material Studies of Outdoor Spaces, Greenery, Land Surveying. However, most of the students perceive technical knowledge as insufficient, stressing the need for practical knowledge in the study of plants, technical drawings, and outdoor application materials. Experts' meetings assure that lack of practical knowledge and skills needed to enter the practice after studies is perceived as insufficient by a larger part of the students and alumni.

Evaluating the course descriptions, added in SAR, Appendix 5, the experts find several issues for improvement:

- The literature of the new courses aligned with the guidelines set forth in the education regulation, however, it is advised to perform updates – the literature in courses like Art History of Architecture and landscape, Architecture, Parks and Squares needs to be updated, using more recent sources;
- The content of the general course “History of architecture, landscape architecture and art”, taught within a decent amount of ECTS, spread between 3 semesters, focusing more on garden history and less on Modernity as an influential approach to urbanity in general and as a shaping force of nowadays landscape architecture. It creates a potential risk of discontinued knowledge and difficulties for the students to relate gained information with the advanced study course “Theory of landscape architecture” on master level;
- Contentwise related courses “Basics of Visual spatial modelling” and “Landscape architectural design graphics” consequently developing skills of landscape drawing (all together 16,5 ECTS), however, prefers the traditional approach to the teaching, devoting one-third of the given tasks to the basics of general drawing techniques like decorative architectural element, gypsum casts (Landscape architectural design graphics I, II, III), giving less or no time to the basics of graphic design and creative representation techniques, which includes also poster, logo, text, presentation techniques, brand developing basics and other types of visual communications that have an impact on the representation both in on-line and off-line formats. The traditional approach to the courses represents itself in the skills of the students, whose ability to create a landscape drawing or painting is higher (as observed during the visit of LLU, the meetings with alumni and professionals from the field, as well as analyzing in internet available examples) than their ability to represent their work in an attractive way for a broader audience. It also affects the quality of visual materials the Department disseminates in order to popularise all the programs of landscape architecture.
- The information about the knowledge on “mobility” notion is evaluated based on the course mapping (SAR, Appendix No.4), not on the course description, however, it indicates the focus on landscaping and related technical aspects (course “Road landscape”, all parts), and no focus on mobility as a complex understanding of moving in the diversely urbanized environment.
- Despite the extended course on greenery and landscape building materials, the evidence gathered during the interview with the students and alumni shows that there is no sufficient knowledge given to the students on plants and landscape building materials. Experts have difficulties to indicate the cause, therefore the recommendation will be given generally.

Overall the course descriptions are detailed and provide clear information about the content. The evidence gathered during meetings with students showed that the students use the description of the courses, which are distributed through the e-environment and at the beginning of the course.

The SP includes a set of courses that fully cover the diverse aspects of the profession of landscape architecture. Therefore the proportion between main and elective courses seems to be in contextual balance.

The evidence provided in SAR and during the interviews with the students, staff, and alumnus makes explicit the students’ involvement in the practice of landscape architecture through the course projects, as well as the possibility for international and local collaboration during the Summer school, organised by the Department. However, there is no mention of open exhibitions, for example, of the students’ end works or participation of the students in the exhibitions or open debates, organized by other architectural schools.

1.2. The study implementation and knowledge evaluation methods, contribute to the achievement of the aims and learning outcomes of the study courses and the study programme. The methods of the study programme implementation are based on the gradual and project-oriented acquisition of knowledge, skills, and competencies, which are realized through the following principles:

- Study courses are designed to be as voluminous as possible concerning CP, subordinating each of them to one topic, which is comprehensively considered, integrating the related sub-topics, using different methods, and inviting several lecturers. This toll applied in order to realize the project-oriented learning;
- Use of LLU Moodle e-studies (especially relevant during the Covid-19 pandemic) helps to publish materials and video lectures for students, to conduct online lectures and seminars, students are able to submit their work, and lecturers – to publish the evaluation. Although designed with a good purpose, the e-environment does not function completely efficiently as students and teachers are using it in a non-synchronized manner. E-mail communication, as well as popular apps like WhatsApp, is highly favored among teaching staff and students and shows concurrency with the LLU e-environment.

Evaluation methods include both qualitative and quantitative evaluation methods, a respectively quantitative indicator of credit points, counting an amount of 140 CPs (210 ECTS) as successfully completed, and 10-point scale criteria, assessing final theses, projects, and individual practical works with a mark, laboratory works by pass/fail, individual work is assessed with a mark and which has a greater decisive role in the final assessment.

SP implements student-centered education (SAR, p. 355) via the following principles:

- Accessible study environment,
 - Students are supported and consulted by academic staff throughout the learning process,
 - Lecturers are available for students for communication not only during classes but also during consultation hours, as well as for communication in e-studies and by e-mail,
 - Students are provided with both mandatory and additional consultations, providing the support of the lecturer,
- independent work is planned and structured,
- Students can use mobility programs and acquire missed courses after return,
 - Students can express suggestions and complaints in order to improve the study process,
 - Evaluation criteria are clearly defined,
 - To evaluate more capacious study courses several lecturers are involved. Final works are assessed by commission.

The evidence gathered during the meeting with the staff and students approves the effectiveness and usability of the student-oriented principles.

1.3. The outcomes of the surveys conducted among the students, employers, and graduates are used to improve the quality of studies, e.g. the survey of 2019 provided the need to diversify the tools in social media, as a result Facebook and Instagram accounts were created for the Department of Landscape Architecture and Planning. The community and followers are not wide (730 and 174 respectively), but are growing in number.

The information on the LLU website has also been updated, the videos with stories of students and graduates were added. The feedback given by alumni and professional society confirms the information given in SAR.

One of the concerns in the survey documented the risk of insufficient knowledge in certain topics, as well as students' inability to meet study requirements or combine studies with work. In recent years, the number of working students has increased, creating difficulties to combine studies with work. Taking into account the survey result, in some cases, additional classes are organized for in-depth study of a topic, including inviting guest lecturers (SAR, p. 329).

For students it is possible to evaluate the course after each examination period (SAR, p. 355). However, students are not obliged to fill in those surveys. There are extremely small numbers or relevant feedback therefore experts doubt that this important procedure is fully useful and exploited. During meetings, experts ascertain that this feedback is minor and is not even sufficient to draw any conclusions. On the other hand, the staff state that if students provide their assessment of the content of the study course and the lecturer's work, it can help to improve the content of the study course and teaching methods – teaching staff approve that they would value this feedback and are looking forward to the objective and elaborate insight and references to use them for improvements.

Within SP there are the following performed:

- discussions with individual students and in groups during the academic year, involving both – early students and last course students,
- surveys initiated by the student self-governance and centralised through LLU IS (information system).

After meetings experts can approve that within SP there is a summary of surveys performed among students (SAR, p. 358), feedback from graduates, employees (SAR, p. 361). There are the following worth mention results gained from these surveys:

- Decreased number of students who chose SP because of the possibility to get the budget place, more students prioritize possibility to gain qualitative knowledge.
- Most students come from Vidzeme and Zemgale region which shows LLU proximity factor as one of the defining features.
- Quantity of “working” students and students of older age has increased, which means a higher risk for time/resources conflict between study and work.
- Pandemic left a negative impact on the quality of work and psychological condition of the students. However, staff flexibly and empathically approach the situation, ensuring the possibility to elaborate common design projects in a collaborative manner.

1.4. During the accreditation period the number of students using outgoing mobility validates that the information about the mobility opportunities is available and the students actively use these opportunities. Yet there is significant fluctuation in the number of the students on mobility during the period: within ERASMUS+ network in the year 2014/2015 was the most active (16 students), but because of systemic changes in the SP in the year 2017/18 students didn't go abroad, the number is growing despite the pandemia, 6 students were on traineeship mobility. According to SAR, the students go to universities with similar structures and content of the program, mostly in Baltic and Nordic countries.

The incoming mobility mostly occurs within the BOVA-NOVA network and it can be evaluated as active. The international summer schools provide an additional possibility for incoming student mobility.

The learning outcomes achieved during such mobility are recognized. Students who are going abroad on mobility programmes are provided with the opportunity to take the missed courses in another term after their return, as well as it is possible to acquire study courses remotely while abroad. Before going on a mobility programme, an individual Letter of Intent is drawn up with each student, which provides for the procedure of reconciliation of study courses when returning from mobility (LLU Rector`s Regulation No. 4.3. – 8/78 (02.22.2016.) “On Procedure of Academic Recognition at LLU” is available in the Appendix No.6). However, it would be necessary to pay attention to a student's workload during mobility and after returning – it can not be accepted that taking part in Erasmus+ means double work.

Conclusions by specifying the strengths and weaknesses

The Academic bachelor study programme “Landscape Architecture and Planning” is solid, but a dynamic and constantly developing and improving undergraduate study program implemented by LLU. SP leadership is determined to reach high-quality standards for foundations of Landscape architecture education. SP is unique in Latvia, providing a profound basis of knowledge, skills and competencies in the profession of landscape architect. Great effort has been made to modernise the SP. The current challenges are related to constantly evolving and changing needs from the industry, also the capacity to systematically make students acquainted with the ground-breaking research and the newest trends in the field. Another important challenge is a necessity to position SP into the international context that – so far it has not been fully reached and these ambitions should be pursued.

Strengths:

1. Organisation of courses is renewed, efficient, aimed at a consequent and continuous learning process;
2. The content of SP is based on a fundamental knowledge rooted in local landscape research and development traditions;
3. The content of SP constantly developing according to the new needs of the industry;
4. Tight relation of the SP and LLU strategy, the flagship of SP within LLU;
5. SP is nationally significant and integrated as a collaborator into the network of Latvian educational institutions;
6. SP is largely aligned with the international professional guidelines and recommendations;
7. Interdisciplinary aspects of Landscape architecture and planning are appropriately strengthened by creating new related courses;
8. Specific focus laid on the systematic and qualitative provision of digital knowledge;
9. Significantly raised level of the study content and learning outcomes, including quality of the students' end works;
10. SP ensures a student-oriented approach; there is a system, as well as tight and trustful collaboration between students and staff, as well as between members of the staff in order to provide a high-quality learning process for the students;
11. The methods of the study programme implementation are efficiently based on the gradual and project-oriented acquisition of knowledge, skills, and competencies;
12. The process of internationalizing of the SP has started but there is still room for development and growth.

Weaknesses:

1. Lower use of innovative teaching methods concerning landscape graphic design, history of landscape architecture, road landscape, and landscape building techniques;
2. Cover program in English attract a small number of foreign students resulting in uneven distribution of teaching resources, the workload of the staff, as well as low integration of the foreign students into local life and students life, the common learning process, therefore decreasing the purpose of study experience abroad.
3. The LLU geographical proximity factor still plays a significant role for young people who chose to study Landscape architecture and planning. The program tends to be very “local”.

3. Resources and Provision of the Study Programme

Analysis

- 3.1. Overall the study provision, informative provision, including libraries, material and technical

provision, and financial provision comply with the aims, specifics and implementation conditions, and ensure achieving learning outcomes of the Academic bachelor study programme “Landscape Architecture and Planning”.

The visit of the facilities (e.g. Valdeka castle study building, LLU Fundamental library), as well as meetings with LLU management, faculty, SD, and programme director all, indicate the possibility to ensure a high-quality study process also in the future with the steady development of study provision, permanent improvements of the IT infrastructure etc. Currently, there are no specially designated outdoor practice/training possibilities for landscape architecture studies, however, the department director and SP director emphasize development plans for outside labs and training fields (territory next to Valdeka castle study building). There is special equipment available to achieve study results – pen tablets, laser cutters, large format plotters and scanners, interactive displays, laptops and workstations, digital cameras etc. Computers are equipped with necessary software – Office, Lumion, Adobe Photoshop, AutoCad, Sketch Up. The recent trends in the field suggest including software that combines 2D and 3D and is suitable for landscape drawing like Allplan, Vectorworks, graphic design software.

The use of digital communication and co-working platforms especially important for remote study work (e.g. Miro) must be explored and supported (e.g. by purchasing subscriptions).

The academic infrastructure in terms of library resources and available databases fully meets the needs of the SP. Access to library and database resources is provided to the students during the whole period of studies. They can be used in LLU premises or distantly – scientific databases can be accessed using student access passwords. Teaching staff and students confirm that they often use actual scientific articles in the courses. Library and methodological cabinet (it is very convenient that the books are close to the study place) are providing LA students with thematic literature on the subjects such as Ecology and environmental protection, History of architecture and garden art, cultural history; Landscape planning; Greenery; Outdoor building materials and elements, etc. (SAR, p. 367). Although students have access to the scientific journal “Landscape Architecture and Art” (issued by LLU), experts suggest having more periodicals (for visual, graphical insight, and analytical purposes) related to the field since that is the way to reach most actual information.

According to SAR (p. 369), the distribution of the total budget of the LLU is formed by the estimates of structural units/faculties, where costs are estimated by type of expenditure. In 2020, the share of costs of the Bachelor's study program “Landscape Architecture and Planning” consisted of the following: Remuneration - 71%, Scholarships - 7%, Goods and services - 19% incl. utilities - 8%, Fixed capital formation - 3%. From SAR – financial support has increased during the reporting period, but so have expenditures, the minimum wage rate, and other economic indicators. Despite financial restraints, Experts have witnessed the improvements in developing study provisions – top management is determined to continue improving the study environment and providing necessary support, although it is not completely clear the number of financial resources SP can acquire for developing material/technical provision or e.g. purchasing new books each study year.

The provision of the study process is also ensured through cooperation with other structural units of LLU: Fundamental Library, Bibliographic Information Department, LLU Communications and Marketing Center and Study Center, LLU Museum, to form an understanding of the cultural and historical values managed by the LLU, etc., also other universities.

The faculty environment is welcoming and pleasant – exhibiting student projects brings visibility to students' works and creates a special atmosphere for the study environment. However, the physical capacity of Valdeka castle study building may be a limitation for more ambitious expansion of the

faculty.

Overall the financial base is sound and there are intentions to ensure continuous development of the Academic bachelor study programme “Landscape Architecture and Planning”.

3.2. Not applicable for BA programme

Conclusions by specifying the strengths and weaknesses

Overall the study provision, informative provision, including libraries, material and technical provision, and financial provision comply with the aims, specifics and implementation conditions, and ensure achieving learning outcomes of the Academic bachelor study programme “Landscape Architecture and Planning”. The provision of the study process is also ensured through cooperation with other structural units of LLU. The visit of the facilities, as well as meetings with LLU management, faculty, SD, and programme director all, indicate the possibility to ensure a high-quality study process also in the future with the steady development of study provision. The faculty environment is up to date, welcoming and pleasant, however, the physical capacity of Valdeka castle study building may be a limitation for the ambitious expansion of the faculty.

The academic infrastructure in terms of library resources and available databases fully meets the needs of the SP, however, it is constantly necessary to follow the latest requirements as well in terms of the newest literature, as also software, technologies etc. Access to library and database resources is provided to the students during the whole period of studies – can be used in LLU premises or distantly. Despite financial restraints, overall the financial base is sound and there are intentions to ensure continuous development of the Academic bachelor study programme “Landscape Architecture and Planning”.

Strengths:

1. The facilities used for the implementation of SP (Valdeka castle study building, LLU Fundamental library) ensure the high-quality study process.
2. The steady development of study provision, emphasizing development plans for outside labs and training fields (territory next to Valdeka castle study building), permanent improvements of the IT infrastructure etc. is clearly visible.
3. Special equipment, computers equipped with software available to achieve study results, however, it is needed to follow latest requirements and consider the addition of softs, e.g. Allplan, Vectorworks, graphic design software from Adobe Creative cloud – Illustrator, Indesign; coworking tools – e.g. Miro.
5. Rooms designated for student independent work.
6. Fundamental library, methodical resources, and online database availability, however, experts suggest having more periodicals (for visual, graphical insight, and analytical purposes) related to the field since that is the way to reach most actual information.

Weaknesses:

1. Lack of outdoor training and practice labs, but as mentioned above – there are plans and vision for development.
2. No catering services are available on Valdeka castle campus.

4. Teaching Staff

Analysis

4.1. Currently the composition of the teaching staff involved in SP is in a healthy changing process. It

means also the gradual growth of the research component and its involvement in the BA studies during the accreditation period. Academic staff members with a doctoral degree are involved in the implementation of the study programme, promoting a closer connection between the study process and scientific achievements (SAR, III, p. 4.2., p. 341). Currently, a total of 29 lecturers participate in the implementation of the SP, 14 of them with a Ph.D. and 15 lecturers with a Master's degree.

There are several important measures LLU / SP director undertakes to eliminate quality and development risks related to the teaching staff:

- Monitoring of the staff composition and attracting new lecturers with Ph.D.;
- Attracting foreign lecturers; various financial instruments and opportunities have been used to attract foreign guest lecturers, e.g. NordPlus, ERASMUS +, BOVA (The Baltic Forestry, Veterinary and Agricultural University Network) and NOVA (The Nordic Forestry, Veterinary and Agricultural University Network), Swiss grant and others (see SAR, p. 372); increased number of foreign guest lecturers creating an opportunity for students to get acquainted with other experience in landscape planning, as well as to improve their English language skills;
- Number of foreign (guest) lecturers – practitioners from the field of landscape architecture and planning in the study process is also important, giving students an insight into the latest trends in the field. On average, about 10 guest lecturers from the industry are attracted every year. Despite that, the students during the interview were able to name with confidence only one, remembering a couple of others without names and countries, which can be a sign of irregular or thematically unrelated involvement.
- Invited special guest lecturers – practitioners from the field of landscape architecture and planning from Latvia are attracted on a regular basis, giving students the possibility to get knowledge on everyday practice in landscape architecture and planning. These lectures are positively evaluated by all participants of the interviews – students' representatives.
- Various activities to raise academic and professional qualifications (SAR, p. 375) – professional courses, language courses, didactics, digital skills training, software training, academic writing training, etc.
- In order to increase their qualification, the teaching staff takes part in exchange experience (ERASMUS+ programme). Although the number of mobilities is average (5 per study year), it is strongly advisable for the SP director and international relations department to encourage and promote this opportunity.

The majority (69%) of the academic staff is elected staff, which according to SAR ensures the stability of the teaching staff. There is a statement in SAR (p. 372) that the changes in the composition of the teaching staff are mainly based on the increase in the number of lecturers, who are the teaching staff of the department and have obtained doctoral degrees during the period of accreditation. In experts' view more “outsiders” – lecturers that are not on the tenure track - could aid to the livability of the knowledge. The evidence gained by esports during the meetings in LLU, analysis of SAR, and social media indicates that the system of the open call is partly activated: there is a clear and strictly followed LLU inner procedure for approving the candidates, which complies with the regulations set forth in the educational legislation. However, the call for candidates is not disseminated widely enough, e.g. on the websites of professional organizations and institutions, through cooperative e-mails, social media, etc. Without widely disseminated calls for candidates, there is a high risk that the use of personal contacts to “hire” the new staff members could prevail, which endangers the sustainability of academic staff composition and does not guarantee permanence in teaching staff composition.

4.2. According to SAR (p. 373) a total of 29 lecturers participate in the implementation of the study programme, 14 of them with a PhD and 15 lecturers with a Master's degree. Overall the qualification

of the teaching staff members enables the achievement of the aims and learning outcomes of the study programme and the relevant study courses. It fully complies with the requirements for the implementation of the study programme and the requirements set forth in the regulatory enactments:

- Selected teaching staff members are in compliance with the provision set forth in Section 39 of the Law on Higher Education Institutions – “Lecturers and assistants who do not have a scientific and academic degree need a five-year practical work experience corresponding to the subject to be taught”.
- English language skills of the teaching staff involved in the implementation of study programmes taught in English correspond to at least Level B2 (Section 55 of the Law on Higher Education Institutions), but state language skills are according to the performance of professional and official duties.
- SP involves in teaching together 8 elected academic staff members (3 professors and 5 associated professors), according to the Law on Higher Education Institutions, which requires that not less than five professors and associate professors, who have been elected to academic positions, are elected.
- As proved by SAR, each member of the academic staff has published articles in peer-reviewed publications, including international publications, in the last six years (in case of a shorter period worked, the number of publications is proportional to the time worked) or creative artistic achievements (such as exhibitions, films, theatre performances and concerts), or five years of practical work (except length of service in the implementation of the study programme) in accordance with the Law on Higher Education Institutions.

4.3. Not applicable

4.4. The academic staff is involved in diverse professional activities, scientific research, and artistic creation in the field of landscape architecture, urban planning and design, landscape planning, as well as in policy-making processes both at the national and international levels. The obtained information is not only used in the study process but students also are invited to take part in related activities, e.g. in developing the projects for themes actual to different municipalities, creating conceptual solutions for the public spaces of the urban and rural territories in Latvia.

Academic staff also actively participate in projects implemented by ministries or other institutions as experts and give lectures to the industry – at least 10-15 different lectures each year. SAR (p. 376) gives information on the awards received by academic staff members and acknowledges the participation in different industry networks and organizations; participation in commissions.

The aforementioned activities of academic staff raise the visibility of the SP in particular and of the Landscape architecture and planning department in general. Many members of the teaching staff are well known in the profession, take an active part in forming the public profile of landscape architecture in Latvia and contribute to the quality of the urban environment as urban designers and activists. The lists of diverse projects, where the academic staff were involved and the relation to the study process can be seen in SAR, III, p. 4.5., table 6.

4.5. There is a mechanism for mutual collaboration established between the teaching staff members of the SP related to the implementation of the study courses. (SAR, p. 383). It does contribute to the improvement of the study courses and their correlation.

There are three main principles of this mechanism:

1. the principle of succession of separate study courses that ensures the continuous and collaborative monitoring of the study content, internal evaluation of the student achievements, and needs in improvements;
2. the principle of project-oriented training that facilitates close cooperation of lecturers in planning,

managing and evaluating the study courses;

3. principle of interrelated management and evaluation of large-scale course projects and exams, involving at least 2-3 lecturers in the simultaneous work with students (SAR, Figure 12, p. 384).

These principles are successfully implemented and contribute to the significantly raised quality of the SP during the accreditation period. The architecture of the central principle of the project-oriented approach is illustrated in Figure 12 Cooperation principles between the main and supportive study courses of the programme in SAR, PART III., p. 351. The application of all principles ensures close cooperation of lecturers in planning, managing and evaluating the study courses.

Conclusions by specifying the strengths and weaknesses

Convincing changes made within the LAP SP during the accreditation period – the strengthening of the teaching quality is the result of the changes in the composition and qualification of the teaching staff. The SP (and the department in general) significantly diversified the study program content, attracting new teaching staff with appropriate knowledge competencies, among them field practitioners and specialists from related professions. Several members of the staff working on the tenure track are involved in the artistic activities and building practice, ensuring continuous knowledge transfer from the practice to academia.

This diversity strongly contributed to the recently raised level of the quality of the SP, the trust in the SP, and more tight relations within the field. Students also benefit from the in-practice-based knowledge and integration into the field by executing landscape projects of different scales covering actual topics, e.g. for municipalities in Latvia.

Although the affiliation of the new members to the teaching process gained very much in quality and diversity, this to a large extent occurs by personal contacts and connection. It is understandable, but such a system does not ensure sustainability and does not guarantee permanence in teaching staff composition.

Upgrading the Landscape architecture Doctoral program also contributed to the quality of teaching by involving academic staff members with a doctoral degree (as well doctoral candidates) in the implementation of the study programme, promoting a closer connection between the study process and scientific achievements. Currently, there is no teaching staff without a master's or doctoral degree, balancing it equally.

Involvement of the foreign teaching staff can be evaluated as sufficient. However, experts see the need for raising the efficiency of this involvement – concerning regularity, thematic orientation, and geographic diversity. The international integration of the teaching staff through mobility instruments and participation in the joint projects could be improved as well. It would be beneficial if more foreign teachers are involved on a permanent basis covering a full study course.

During the accreditation period, the SP / Department attracted a number of members of a younger age, which are creatively involved in the diverse professional activities, scientific research, and artistic creation, as well as in the projects implemented by ministries or other institutions.

Strengths:

1. Increased number of academic staff members with a doctoral degree, number of lecturers and docents, number of professors has been tripled.
2. The staff is diversely and creatively involved in the implementation of the SP, the high qualification of the teaching staff members fully enables the achievement of the aims and learning outcomes of the SP and study courses included.

3. The qualifications of the SP staff have been largely aligned with related requirements set forth in the regulatory enactments of the field, both of industry and education.
4. Various financial instruments and opportunities have been used to attract foreign guest lecturers.
5. Most members of the teaching staff are well known in the profession, behold awards and recognitions, active in the profession.
6. There is a well-functioning internal mechanism for mutual collaboration between the teaching staff members, together with working and implementing innovative teaching methods and tools.
7. Teaching staff diversified by involving in the teaching process professionals from the field as guest lecturers.
8. The age profile of the teaching staff is balanced between more (experienced) older and younger generations, ensuring a vibrant academic environment and experience transfer.
9. The members of the teaching staff are actively involved in the international networks within the field of landscape architecture practice and education.

Weaknesses:

1. The character of involvement of the foreign specialists is irregular and of vague thematic linking the latest achievements and trends of the industry. Few foreign lecturers are employed on a regular basis.
2. Seemingly incidental character of the local specialists' involvement as guest lecturers.
3. Giving advantage to the use of personal connections and underusing the open call tools in attracting teaching staff members.

5. Assessment of the Compliance of the Study Programme "Landscape Architecture and Planning"

Requirements

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

Assessment of compliance: Fully compliant

The sample of the diploma is provided and complies with the procedure by which state-recognised documents of higher education are issued.

2. Documents confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued.

Assessment of compliance: Fully compliant

Provided compliance and AGREEMENT between LATVIA UNIVERSITY OF LIFE SCIENCES AND TECHNOLOGIES and RIGA TECHNICAL UNIVERSITY confirm that RTU shall undertake and provide learning opportunities in relevant programmes for students of LLU in case the implementation of the study programme is discontinued. The Agreement is applicable to the Academic bachelor programme Landscape Architecture and Planning contained in the fields of study Architecture and Construction.

3. Document confirming that the higher education institution/ college guarantees to the students a 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 higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" provided and confirms that if SP is discontinued and students do not wish to continue their studies at RTU, they are reimbursed their tuition fees.

- 4 4. 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

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" confirms (paragraph 7) that the Latvian language proficiency of the teaching staff involved in the implementation of SP complies 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.

- 5 5. 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.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" confirms (paragraph 8) that all the teaching personnel of SP in English have a foreign language proficiency level of at least B2 according to the Common European Framework of Reference for Languages (CEFR) (www.europass.lv).

- 6 6. 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.

Assessment of compliance: Not relevant

- 7 7. 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 Institutions of Higher Education.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" (paragraph 6).

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

Assessment of compliance: Fully compliant

Study agreement is provided in the appendix.

- 9 9. 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 56.1, Paragraph two and Section 56.2, Paragraph two of the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

Study course descriptions are provided in the annex and they comply with the requirements.

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

Assessment of compliance: Not relevant

- 11 11. 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 Institutions of Higher Education.

Assessment of compliance: Fully compliant

Assessment added from COUNCIL OF HIGHER EDUCATION, issued 5 May 2020, No. 1.10/33.

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

Assessment of compliance: Fully compliant

Appendix confirming compliance is provided.

- 13 13. The joint study programmes comply with the requirements prescribed in Section 551, Paragraphs one, two, and seven of the Law on Institutions of Higher Education (if applicable).

Assessment of compliance: Not relevant

- 14 14. Each member of the academic staff has either publications published in reviewed editions within the last six years, including international editions (if they have worked for a shorter period of time, the number of publications shall be in proportion to the work period), or artistic creation achievements (for instance, exhibitions, films, theatre performances, and concert activity), or a five-year practical work experience (except for the experience in the implementation of the study programme) in accordance with the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

The study programme complies with the requirement as justification is provided in SAR, p. 374 and respective Appendix on Information of Academic staff publications and work experience. Document provides information about publications and experience of practical work (at least 5 years) of the members of the academic staff of the SD.

- 15 R5 - Overall rating

Assessment of compliance: Fully compliant

Study program complies with all previous requirements.

Requirements (R6-R8)

- 1 R6 - The compliance of the study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision with the conditions for the implementation of the study programme and ensuring the achievement of the learning outcomes.

Assessment of compliance: Fully compliant

The LLU has all the necessary resources like Valdeka castle study building, LLU Fundamental library, special equipment and software, rooms for student independent and collective work and other technical, financial and informative supply in order to be able to implement the Academic bachelor study programme "Landscape Architecture and Planning" at high quality level.

- 2 R7 - The compliance of the qualification of the academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments.

Assessment of compliance: Fully compliant

The LLU ensures qualified, actively involved in international and national academic and professional practice of landscape architecture academic staff, both local and foreign, in order to implement the academic bachelor study programme "Landscape Architecture and Planning" at high quality level, in compliance with legal requirements.

- 3 R8 - The study programme leading to the master or doctoral degree is based on the advances and findings in the relevant field of science or artistic creation.

Assessment of compliance: Not relevant

Conclusions by specifying the strengths and weaknesses

The academic bachelor study programme "Landscape Architecture and Planning" is implemented by LLU in the study field "Architecture and constructions" in Latvian and English. The graduates are granted an academic degree Bachelor of Engineering in Architecture and Urban Planning. Professional qualification is not provided. Admission requirements are clear, transparent, available to the public on the website of LLU.

Overall evaluation of SP by the experts is based on clear evidence of the high rise of the quality of teaching, provision, academic staff qualification, the structure of the program, the quality of the student's work, SP recognition in Latvia during the accreditation period. SP is seen as dynamic and strongly developing, therefore the weaknesses listed below, as well as related recommendations should be considered rather as issues for discussions and potentials for improvement than lower evaluation.

The assessment of provided criteria proves formal compliance of the SP with the requirements prescribed in the Law on Institutions of Higher Education and other regulatory enactments receiving general evaluation as "fully compliant".

There are no particular Strengths indicated for this section respectively to the abovementioned criteria. An elaborate analysis is provided and particular worth notice details are indicated in the textual part of the assessment.

As a weakness experts can note the following:

Descriptions of the study courses and thesis writing rules are detailed enough, available to students, and generally comply with the provisions set forth in the regulatory enactments. Although there are several shortcomings related to the course content – from the descriptions of the main study courses, lacking links to the recent discourse to the indicated skills and competencies of the students.

Evaluation of the study programme "Landscape Architecture and Planning"

Evaluation of the study programme:

Good

6. Recommendations for the Study Programme "Landscape Architecture and Planning"

Short-term recommendations

The SP director together with the teaching staff should consider balancing the content of the general courses like "History of architecture, landscape architecture and art" by creating an equal focus on the modern history of landscape development and urbanity, which is consequently continued on the next level (study course "Theory of landscape architecture"), as well as to consider balancing the content of the courses "Basics of Visual spatial modelling" and "Landscape architectural design graphics" by shifting focus from basics of drawings to the basics of graphic design, which includes also a poster, logo, text, presentation techniques, brand developing basics, creative approaches and other types of visual communication, that have an impact on the users both in on-line and off-line formats.

The SP director should initiate and supervise the update of the study course descriptions with the references to the recent (adding at least 80% of recent sources – last 5 years time) literature, e-sources and websites, digital materials.

The Department should establish, elaborate, and to implement a system/plan (for the upcoming study year) of regular involvement of (local) professionals and specialists, thematically based on the latest trends in the industry. Ensure promotion of guest lectures among students.

The Department should create a conceptual plan of action in order to facilitate collaboration/synergy and integration (the related studies and study courses) within the SF (other study programs).

The Department should encourage establishing and developing closer collaboration between different faculties and study programmes of the LLU – synergies of courses and study assignments.

Long-term recommendations

The Department in collaboration with the Faculty should evaluate the feasibility of the English study programme concerning the number of students, exploring possibilities to increase the number of foreign students or to consolidate courses in English, for example including them in C part, opening for the local students. To develop and to implement tools for the integration of foreign students into the common study process.

The Department should establish, elaborate and implement a system of regular involvement of the foreign academic staff.

The Department and the Faculty should implement a conceptual plan of action in order to facilitate cross-disciplinarity, collaboration/synergy and integration (the related studies and study courses) within the SF and other study programs).

The Department in collaboration with LLU management should develop proactive approach to the administrative, organisational and financial possibilities for attracting the foreign best practitioners and top researchers from the field of landscape architecture and urban planning.

II. "Landscape Architecture and Planning" ASSESSMENT

II. "Landscape Architecture and Planning" ASSESSMENT

1. Indicators Describing the Study Programme

Analysis

1.1. Professional master study programme "Landscape Architecture and Planning" depending on the form is 1 (40 credits) or 2 years (80 credits) long full-time study programme implemented by LLU. Correspondingly the graduates of the program obtain a Professional Master Degree in Landscape Architecture or Professional Master Degree in Landscape Architecture with professional qualification "Landscape architect" (Level 5). The programme is implemented in Latvian and English: 1) 1-year Latvian, 2) 1-year English, 3) 2-years Latvian, 4) 2-years English. The studies take place (mainly) in Jelgava, Valdeka castle study building, Lielā iela 2.

Since the past accreditation significant changes have been introduced to BA and MA level programs of landscape architecture and planning of LLU, see SAR, p. 130 (name of the study programme: Landscape Architecture and planning; Latvian and English languages, Professional higher education Master's study program). In 2009, the SP received the international accreditation of EFLA (European Federation of Landscape Architects), which was a basis to change Bachelor's and Master's studies in the regard to the form of the study in accordance with the Bologna Process (European Higher Education Area, declaration of the European Ministers of Education of 19 June 1999 in Bologna), so that the programmes can be internationally recognized. Overall changes are based on: 1) the basic principles of the Bologna process, 2) recommendations of the International Federation of Landscape Architects (IFLA/ Unesco charter for Landscape Architectural education; Guidance document for recognition or accreditation 3) The Education Standard for Landscape Architects developed by ECLAS (European Council of Landscape Architecture Schools) (ECLAS Guidance on Landscape Architecture Education) 4) Findings and recommendations gained within the EBANELAS project regarding the form of implementation of existing study programs) (SAR, p. 340).

Admission requirements set for MA-level students differ depending on the study form: academic or professional Bachelor's degree or second level higher professional education in landscape architecture is required. For English programmes – at least B2 level of English language skills.

The MA programme is the second of two consecutive study programmes (follow up to Bachelor level program that is linked to MA) that provides the education necessary for obtaining professional qualifications and the right of independent practice as landscape architect. During the meetings with the study programme director and the members of the staff it was explained that the 1-year study form was purposely designed as a temporary solution in order to give the possibility to obtain a master degree for the alumni, who already obtained the qualification of landscape architect, fulfilling the previous 5 year programme. Although, there is no clear vision of the future of the programme, it may vanish when the aim is fulfilled. At the same time taking into account, that implementation of the 1-year programme, contributed to the significant increase in number of the students in the SP (SAR, Appendix No.2) and, as become clear from the meeting with alumni, it appears to be very popular among working practitioners.

Structural changes in the program implementation significantly raised number of enrolled students – as proved by statistics (SAR, p. 132, Appendix No. 2). The average number of enrolled students varies from 15-19 students (9-18 graduates) each year – that is considered to be optimal for a high-quality study process and the demand of the field (SAR, p. 132, Appendix No. 2). Since 2021 the study programme is also implemented in English but the number of students is minor – the English

program currently is unexploited and there is a decisive need for the strategy on international student attraction. All students study in state-funded places, except those foreign students.

The establishment of the field of landscape architecture in Latvia dates back to 1994 and it corresponds with the time when the Landscape architecture program started in LLU. The program formed and still maintains cooperation with the professional organisation – Latvian Association of Landscape Architects (LAAA). The sub-field “Landscape Architecture and Planning” and the corresponding programs implemented by LLU are the only programs for Landscape architecture and planning in Latvia.

According to SAR (p. 133) the title of the study program is based on the professional standard of the profession of a landscape architect and the guidelines and descriptions of the field defined in the European Landscape Conventions (from the European Landscape Convention: “landscape planning” means consequent future-oriented actions to improve, restore or create new landscapes).

The aim of the SP is “to provide students with the set of professional knowledge and skills necessary to start practical activities in the field of landscape architecture. As specialists who are able to independently, or in working groups, perform research, analysis, development planning, preservation, restoration and management of landscapes, public and private outdoor facilities and greenery” (SAR, p. 127). Achieving this aim is “ensured by the content of the study programme, which envisages mastering theoretical and specialized study courses, mastering the basics of research work, research methodology; acquire the necessary practical knowledge and skills in practice. To reflect the acquired theoretical and professional knowledge and practical skills in the Master's thesis”.

The name of the program, the degree and professional qualification to be acquired, study results, and admission requirements are interrelated, are defined in the program's regulations and procedures, are available on the e-learning platform, and are included in study courses descriptions. The learning outcomes/study results are achievable and formulated according to the program's tasks corresponding to a professional standard (SAR, p. 127) to provide students with the set of knowledge and skills necessary for practice in the field of landscape architecture and obtain a professional qualification.

Conclusions by specifying the strengths and weaknesses

LLU implements Professional master study programme “Landscape Architecture and planning” in various forms – 1 (40 credits) or 2 years (80 credits) and correspondingly the graduates obtain Professional Master Degree in Landscape Architecture or Professional Master Degree in Landscape Architecture with professional qualification “Landscape architect” (Level 5). The programme is implemented in Latvian and English: 1) 1-year Latvian, 2) 1-year English, 3) 2-years Latvian, 4) 2-years English. The studies take place (mainly) in Jelgava, Valdeka castle study building.

In the recent period there have been structural changes in the program implementation – the MA programme is the second of two consecutive study programmes (follow up to Bachelor level program that is linked to MA).

The program formed and still maintains cooperation with LAAA and develops collaboration also with other professional organisations. The title of the SP is based on the professional standard of the profession of a landscape architect and the guidelines and descriptions of the field defined in the European Landscape Conventions. The aim of the SP is “to provide students with the set of professional knowledge and skills necessary to start practical activities in the field of landscape architecture. Achieving this aim is “ensured by the content of the study programme, which

envisages mastering theoretical and specialized study courses, mastering the basics of research work, research methodology; acquire the necessary practical knowledge and skills in practice. To reflect the acquired theoretical and professional knowledge and practical skills in the Master's thesis". The name of the program, the degree to be acquired, study results and admission requirements are interrelated, are defined in the program's regulations and procedures, available on e-learning platform, and included in study courses descriptions. The learning outcomes/study results are achievable and formulated according to the program's tasks corresponding to professional standard to provide students with the set of knowledge and skills necessary for practice in the field of landscape architecture and obtain professional qualification.

Strengths:

1. Structural changes in program implementation ensure sustainability (e.g. increased number of students) and international compliance;
2. The 2 forms of the SP, which differ in length: 1 and 2 years with a shorter form giving additional possibilities for the practitioners from the field to obtain a master degree in a shorter time, however, it must be clarified what is the future of this program;
3. Double aspirations of the SP, which gives possibilities to simultaneously acquire both degree and qualification of landscape architect;
4. Unique SP that offers consecutive MA level education and professional qualification in Landscape architecture.
5. The aim and the title of the SP are closely related to the professional standard of landscape architects, meeting the needs of the industry of landscape architecture, planning, and building, and the scientific trends.

Weaknesses:

1. The English form of SP currently is unexploited and there is a strong need in the strategy on international student attraction at the same time evaluating the future feasibility of this study form.
2. Admission requirements set for MA-level students differ depending on the study form: academic or professional Bachelor's degree or second level higher professional education in landscape architecture is required, only for English programme B2 level of English language skills is required.

2. The Content of Studies and Implementation Thereof

Analysis

2.1. During the transition to the Bologna process system (SAR, p. 131), the descriptions of the study courses, the traineeship, and the final thesis were updated, completed, and designed in order to reach high-quality education and learning outcomes. Currently, they fully comply with the provisions set forth in the regulatory enactments.

The content of the study programme ensures the achievement of the learning outcomes by balancing theoretical and specialised study courses, mastering the basics of research work, research methodology, and delivering necessary knowledge in order to acquire competencies and skills needed in the practice of landscape architecture and planning. The content complies with the aims of the study programme to educate specialists who are able to independently or in working groups perform research, analysis, development planning, preservation, restoration and management of landscapes, public and private outdoor facilities and greenery (SAR, p. 133).

The topicality of the SP has been actively discussed with the local professional community, including professional organisations like Council of Construction Industry Experts (NEP), Latvian Association of Landscape Architects, Riga Council of Monuments and were harmonised with the needs of the labor market and scientific trends. Among the most important are the sustainable use of natural resources

for raising the quality of life of the society, identifying, preserving, developing and managing the value of the Latvian cultural landscape, but also computer skills and digital competencies, as well as communication skills.

The courses Theory of Landscape Architecture, Sustainable Landscape Development, Territorial Development Planning, Design of Industrial Landscapes, Greenery Design Concepts cover important issues as the meaning of landscape architecture, its esthetical, ecological, economical, and cultural aspects, regional development and marketing, green economy, international and national policies on the landscape, sustainable landscape development, ecological design and techniques etc. (SAR, Appendix No. 5). The topicality is diverse and mirrors the needs of the relevant industry and the scientific trends. Descriptions of the study courses are detailed, distributed between the students in various ways (through LLU internal e-platform, at the beginning of the courses and used by the students to monitor knowledge delivery). Although the course descriptions are sufficient, the literature for some courses does not contain recent references, concerning both books and periodicals. It particularly concerns the courses Territorial Development Planning and Design of Industrial Landscapes. The periodicals of all courses are the same and not always thematically relevant.

The content of these courses focus on territorial development, translated in English source described as “spatial”, however, there is a substantial difference between territorial and spatial planning. The content of these courses, the referenced literature, as well as the evidence gained from the interviews with students and alumni indicate the gap in the understanding of the nature of spatial planning and its crucial for urban governance and planning, and for the sustainability of the urban environment.

Evidence gathered during the interviews with the teaching staff, alumni, and professionals from the field confirms the good level of the final thesis works and the significant improvement of their quality during the accreditation period. However, the overall impression experts gained after analysis of SAR and visiting LLU is that there are possibilities of improvement concerning theses, e.g. the graphic quality, balancing Latvian and international case studies, improving the quality of the textual part concerning terminology, stylistics and overall quality of the language, also considering thesis written in English.

2.2. The SP implementation methods, including the evaluation methods, are equal to those of bachelor and doctoral studies and described in the appropriate chapter of the Joint report and the SAR. A specific aspect is the presence of traineeship. Students have a traineeship in the amount of 20 CP in the 2nd semester (only in 2-year program), complementing in practice the knowledge, skills and competencies acquired at the Bachelor's level and the first semester of the Master's programme. The traineeships program is elaborated according to the Traineeship Regulations of LLU (Appendix No. 9). The Traineeship includes a detailed description of the place and management, organization of the traineeship, tasks for students, and description of the final report. (SAR, Appendix No.8.) All descriptions give clear understanding of the traineeships' aim and tasks. The traineeship aims at strengthening theoretical knowledge with practical skills by participating in specific projects, implementation, as well as at gaining first glimpse into organizational, economic and psychological aspects of landscape architecture practice. During the traineeship, students are required to collect the necessary materials for the development of the final thesis. Two-year form foresees double focus according to the theoretical-practical accent of the SP. Traineeship I - with an emphasis on the acquisition of theoretical knowledge, the Traineeship in the 2nd study year emphasising the main competencies of a landscape architect - outdoor research, planning, author's supervision during installation.

In order to support students in acquiring traineeships and achieving results, Traineeship Days are organized every year, where entrepreneurs who are ready to offer traineeships meet with students

and explain the specifics and opportunities of their company. Entrepreneurs are also ready to take on English-speaking students.

2.3. As for the other SP of LA, there are regular evaluations of the study quality, using different tools. There are student surveys, conducted for several purposes, interviewing both individual applicants and students of later years. Sometimes surveys are organized centrally or on the initiative of the faculty, student self-government, as well as for the evaluation of each study course through the LLU IS system. The interview during the assessment meetings with the expert panel show that, despite the attempts to conduct surveys, there are no significant contributions to the quality of teaching. The best way until now is the personal conversation and conversations in groups.

2.4. There are elaborated possibilities and for the students to avail themselves of the outgoing mobility, where the learning outcomes achieved during such mobility are recognised. Comparing outgoing mobility of the SP with that of bachelor and doctoral programmes, the greater activity and popularity of the mobility is to be mentioned. (SAR, part II, section 2.7.) The same is to say about the mobility after the structural changes made in LA education: after 2017 it tripled, there are 3 students for traineeship and 3 for studies, what can be seen as a good percentage of the total number of the students.

Compared to the outgoing, the incoming mobility is very vibrant, uses more tools (ERASMUS, BOVA, summer schools), the total number of students which took part in the SP organized activities is sufficient. However, unlike outgoing mobility, the incoming mobility activities dropped during past years, from 21 students in 2015 to 8 in 2018. The mobility of the last years is disturbed by the C19 pandemic conditions.

Conclusions by specifying the strengths and weaknesses

The Professional master study programme “Landscape Architecture and Planning” is novel and it is designed according to the best international practices in master education in the field. It is the result of a recently restructured system of education in landscape architecture.

The solidly improved quality of teaching, final works and traineeship conditions, which occurred during the accreditation period is worth special mention. The content of the program contributes to the systematically raising quality of the knowledge and skills, which students obtain during their studies. The composition of the programme with efficiently integrated and organised traineeship ensures practical experience and embedding of the young professional into the “real life”. The SP can be evaluated as dynamically developing, full of scientific and practical potential. As newly created, the first and only in Latvia, it has a number of strong aspects, but also some weak points, which are challenges for the future development of education.

Strengths:

1. The renewed content is thematically fulfilled, contemporary, and complies with the needs of the field of landscape architecture and planning
2. The composition of the courses, their contextual aspects are of dissent quality and cover most of the actualities in the industry and science, related to the landscape;
3. The SP is embedded in the national and international landscape discourse;
4. The traineeship efficiently integrated into the composition of the course and the structure of the programme, and is of high importance within the study process;
5. Pro-actively provided information on the mobility, diverse financial opportunities and therefore rather vibrant outgoing mobility, despite the LAP full restructuring and pandemic;
6. Significantly improved level of the scientific and practical quality of the final thesis.

Weaknesses:

1. The final thesis projects are of proper quality however quality of graphical representation is concerning;
2. Poor interdisciplinary collaboration with other SF faculties and other SFs concerning topicality of the master theses;
3. Low impact of the centralized, objective and non-personal toll of evaluation of the study quality on the daily basis.

3. Resources and Provision of the Study Programme

Analysis

3.1. Overall the study provision, scientific support, informative provision, including libraries, material and technical provision, and financial provision comply with the aims, specifics and implementation conditions, and ensure achieving of learning outcomes of the Professional master study programme "Landscape Architecture and Planning".

The visit of the facilities (Valdeka castle study building, LLU Fundamental library), as well as meetings with LLU management, faculty, SD and programme director all, indicate a well-established base and the possibility to ensure a high-quality study process also in the future with the constant development of study provision, emphasising development plans for outside labs and training fields (territory next to Valdeka castle study building), permanent improvements of the IT infrastructure, etc. There is special equipment available to achieve study results – pen tablets, laser cutters, large format plotters and scanners, interactive displays, laptops and workstations, digital cameras, etc. Computers are equipped with necessary software – Office, Lumion, Adobe Photoshop, AutoCad, Sketchup PRO.

The academic infrastructure in terms of library resources and available databases fully meets the needs of the SP. Access to library and database resources is provided to the students during the whole period of studies. They can be used in LLU premises or distantly – scientific databases can be accessed using student access passwords. Teaching staff and students confirm that they often use actual scientific articles in the courses. Library and methodological cabinet (it is very convenient that the books are close to the study place) are providing LA students with thematic literature on the subjects such as Ecology and environmental protection, History of architecture and garden art, cultural history; Landscape planning; Greenery; Outdoor building materials and elements, etc. (SAR, p. 157). Although students have access to the scientific journal "Landscape Architecture and Art" (issued by LLU), Experts suggest having more periodicals (for visual, graphical insight and analytical purposes) related to the field since that is the way to reach most actual information.

According to SAR (p. 158), the distribution of the total budget of the LLU is formed by the estimates of structural units / faculties, where costs are estimated by type of expenditure. In 2020, the share of costs of the Professional master study programme "Landscape Architecture and Planning" consisted of: Remuneration - 71%, Scholarships - 7%, Goods and services - 19% incl. utilities - 8%, Fixed capital formation - 3%. From SAR – financial support has increased during the reporting period, but so have expenditures, the minimum wage rate and other economic indicators. Despite financial restraints, Experts have witnessed the improvements in developing study provisions – top management, SD and faculty leaders are determined to continue improving the study environment and providing necessary support.

The provision of the study process is also ensured through cooperation with other structural units of LLU: Fundamental Library, Bibliographic Information Department, LLU Communications and Marketing Center and Study Center, LLU Museum, to form an understanding of the cultural and historical values managed by the LLU, etc., also other universities.

The study environment is organized so that each course has its own workroom, where they stay and work also outside of classes. The faculty environment is welcoming and pleasant – exhibiting student projects brings visibility to students' works and creates a special atmosphere for the study environment. However, the physical capacity of the Valdeka castle study building may be a limitation for ambitious expansion of the faculty. Additionally, experts notice that there are no catering services directly on the campus.

Overall the financial base is sound and there are intentions to ensure continuous development of the Professional master study programme “Landscape Architecture and Planning”.

LLU Moodle e-study platform helps to publish materials and video lectures for students, to conduct online lectures and seminars, students are able to submit their work, and lecturers - to publish the evaluation. Additionally, experts would advise to organise public project presentations and student project exhibitions (even travelling) that allow to establish public discussion and display student works and gain attention.

3.2. Not applicable for MA programme

Conclusions by specifying the strengths and weaknesses

Overall the study provision, scientific support, informative provision, including libraries, material and technical provision, and financial provision comply with the aims, specifics and implementation conditions, and ensure achieving of learning outcomes of the Professional master study programme “Landscape Architecture and Planning”.

Despite financial restraints, Experts have witnessed the improvements in developing study provisions – top management, SD and faculty leaders are determined to continue improving the study environment and providing necessary support. The provision of the study process is also ensured through cooperation with other structural units of LLU.

Strengths:

1. The facilities used for implementation of SP (Valdeka castle study building, LLU Fundamental library) ensure the high-quality study process.
2. Constant development of study provision, emphasising development plans for outside labs and training fields (territory next to Valdeka castle study building), permanent improvements of the IT infrastructure, etc. is clearly visible.
3. Special equipment, computers equipped with software available to achieve study results, however, it is needed to follow latest requirements and consider addition of softs, e.g. Allplan, Vectorworks, graphic design software from Adobe Creative cloud – Illustrator, Indesign; coworking tools – e.g. Miro.
4. Rooms designated for student independent work.
5. Fundamental library, methodical resources and online database availability, however, experts suggest having more periodicals (for visual, graphical insight and analytical purposes) related to the field since that is the way to reach most actual information.

Weaknesses:

1. Lack of outdoor training and practice labs, but as mentioned above – there are plans and vision for development.
2. There is no evidence on precisely how much financial resources (per SP) are allocated each study year for the purchase of technical/ material provision, library.
3. No catering services available on Valdeka castle campus.

4. Cooperation with Alumni Association, private businesses in providing the technical/material support and assistance.

4. Teaching Staff

Analysis

4.1. In the attraction of teaching staff for the Professional master study programme “Landscape Architecture and Planning” since past accreditation there has been improvements that ensure education quality, e.g. the increase in the number of lecturers with doctoral degrees during this period (SAR, p. 162, Fig. 8) ensuring the transfer of research components, methods and results to the study process thus also creating the interest of students in further PhD studies. There are measures realized in a target-oriented manner, aimed at increasing the quality of the implementation of the SP.

Several important activities are taken in order to ensure high-quality study process:

- Attracting foreign guest lecturers;
- Involvement of guest lecturers – practitioners from the field of landscape architecture and planning, giving students an insight into the latest trends in the field.

Overall the teaching staff of the department are taking an active part in the SP ensuring quality both – in BA and MA levels. The practitioners from the field are involved in guest lecturing, scientific committees and reviewing master thesis end works. The interviews conducted with the SP students, alumni and practitioners from the field show the high competence of the HEI teaching staff, their creative involvement in the SP courses and openness, supportiveness and abilities to co-operation. Experts notice that students were not so well informed about guest lectures and foreign teaching staff involved in the SP meaning that there should be more emphasis on the promotion of lectures and introductions to guest lecturers, also SP needs to ensure that there are lectures that are attractive, groundbreaking and remain in the memory of the students.

Teachers are also encouraged to take part in various activities to raise their academic and professional qualifications – e.g. professional courses, language courses, didactics, digital skills training, software training, academic writing training etc. In order to increase their qualification, the teaching staff takes part in exchange experience (ERASMUS+ programme) and it is strongly advisable for the SP director and international relations department to support, encourage and promote this opportunity.

The majority of the academic staff is elected staff, which according to SAR ensures the stability of the teaching staff. There is a statement in SAR that the changes in the composition of the teaching staff are mainly based on the increase in the number of lecturers, who are the teaching staff of the department and have obtained doctoral degrees during the period of accreditation.

The sustainability and component of the novelty of the SP are based also on the recent recruitment of younger colleagues who are professionals of the industry. In experts' view, additionally attracting more “outsiders” – lecturers that are not on the tenure track - could benefit the liveliness of the knowledge.

The evidence gained by experts during the meetings in LLU, analysis of SAR, and social media indicates that the system of the open call is partly activated: there is a clear and strictly followed LLU inner procedure for approving the candidates, which complies with the regulations set forth in the educational legislation. However, the call for candidates is not disseminated widely enough, e.g. on the websites of professional organisations and institutions, through cooperative e-mails, social

media, etc. Without widely disseminated calls for candidates, there is a high risk that the use of personal contacts to “hire” the new staff members could prevail, which endangers the sustainability of knowledge provision and does not guarantee permanence and solidity in teaching staff composition.

4.2. According to SAR a total of 12 lecturers participate in the implementation of the SP, 10 of them with a doctoral degree and two lecturers with a Master's degree (SAR, p. 163, Fig. 9) and that from experts' point of view is a good base. Overall the qualification of the teaching staff members enables the achievement of the aims and learning outcomes of the study programme and the relevant study courses. SP complies with the conditions and requirements of regulatory enactments (SAR, p. 164): Lecturers and assistants who do not have a scientific and academic degree need a five-year practical work experience corresponding to the subject to be taught.

English language skills of the teaching staff involved in the implementation of study programmes taught in English correspond to at least Level B2 (Section 55 of the Law on Higher Education Institutions), but state language skills are according to the performance of professional and official duties.

As proved by SAR, each member of the academic staff has published articles in peer-reviewed publications, including international publications, in the last six years (in case of a shorter period worked, the number of publications is proportional to the time worked) or creative artistic achievements (such as exhibitions, films, theatre performances and concerts), or five years of practical work in accordance with the Law on Higher Education Institutions.

To increase the qualification, English skills and develop their contact network, the teaching staff takes part in ERASMUS+ programme (overall 4-5 persons in the past years; disrupted due to Covid-19).

The teaching staff participate also in other activities that raise their academic and professional qualifications: courses and training, projects implemented by ministries or institutions, expert duties, lecturing for industry and in LLU Lifelong learning center. The qualification is also approved by various awards and gratitudes received by teaching staff (more explicit listing – SAR, p. 165). The teaching staff of the department also participate in various organisations and networks, e.g. IFLA - International Federation for Landscape Architecture, ECLAS - European Council of Landscape Architecture Schools (lecturer Kristīne Vugule was the secretary of the ECLAS organizing committee from 2009-2015), ELASA - European Landscape Architecture Schools Association, EBANELAS - Eastern Baltic Network of Landscape Architecture Schools. Speaking of local involvement teaching staff also work in national-level commissions and committees, e.g. Competition “Best Building of the Year” expert commission.

4.3. Not applicable

4.4. The academic staff is involved in diverse professional activities, scientific research and artistic creation in the field of landscape architecture, urban planning and design, landscape planning, as well as in policy-making processes both at the national and international level. The obtained information is not only used in the study process but students also are invited to take part in related activities, e.g. in developing the projects for themes actual to different municipalities, creating conceptual solutions for the public spaces of the urban and rural territories in Latvia.

A total of 231 publications were prepared during the reporting period (SAR, p. 167, Table 6 and Fig.11) – 31 out of them in International, peer-reviewed scientific publications included in Web of Science or Scopus scientific literature databases.

SAR, p. 168, Table 7 shows the involvement of academic staff of the Department of Landscape Architecture and Planning in various projects and the relation of the results to the study process.

These projects include State research program, Interreg programs, Latvia-Russian Cross-border cooperation program, common projects with the Latvian Association of Landscape Architecture, also cooperation projects with local municipalities that involve both – teachers and students. Overall the participation of the projects seems well tied together with the study process ensuring that the study process benefits not only contentwise but also by improving material-technical base from these projects.

The aforementioned activities of academic staff raise the visibility of the SP in particular and of the Landscape architecture and planning department in general. Many members of the teaching staff are well known in the profession, take an active part in forming the public profile of landscape architecture in Latvia and contribute to the quality of the urban environment as urban designers and activists.

4.5. There is a mechanism for collaboration between the teaching staff members within SP and it contributes to the improvement of the study courses and their correlation. The mechanism is described in SAR (p. 173) and also was explained during the meeting with the SP director. Evidently, it does contribute to the improvement of the study courses.

There are three main principles assured:

- 1) the principle of succession of separate study courses that ensures the gradual, continuous and collaborative digestion of the study content;
- 2) the principle of project-oriented training that facilitates close cooperation of lecturers in planning, managing and evaluating the study courses;
- 3) principle of interrelated management and evaluation of large-scale course projects and exams, involving at least 2-3 lecturers in the simultaneous work with students.

The system is monitored by the SP director able to implement adjustments if needed.

It is also very commendable that there is an infographic (SAR, p. 174) worked out depicting the collaboration mechanism. These principles are successfully implemented and contribute to the significantly raised quality of the SP during the accreditation period.

Conclusions by specifying the strengths and weaknesses

There have been significant improvements for the Professional master study programme “Landscape Architecture and Planning” in regards to composition of the teaching staff, their degree and qualification, ensuring adequate quality of education and study process. Generally, there are measures realized in a target-oriented manner, aimed at continuously improving the quality of the SP.

Overall the qualification of the teaching staff members enables the achievement of the aims and learning outcomes of the study programme and the relevant study courses. SP complies with the general conditions and requirements of regulatory enactments.

The academic staff is involved in diverse professional activities, scientific research and artistic creation in the field of landscape architecture, urban planning and design, landscape planning, as well as in policy-making processes both at the national and international level. The obtained information is not only used in the study process but students also are invited to take part in related activities, e.g. in developing the projects for themes actual to different municipalities, creating conceptual solutions for the public spaces of the urban and rural territories in Latvia.

Overall the participation of the projects seems well tied together with the study process ensuring that the study process benefits not only contentwise but also by improving material-technical base from these projects.

There is a mechanism for collaboration between the teaching staff members within SP and it contributes to the improvement of the study courses and their correlation. Evidently, it does contribute to the improvement of the study courses.

Strengths:

1. Good academic staff composition in terms of their degree, qualifications, age, and % of elected staff.
2. Involvement of the field practitioners in guiding and reviewing the thesis works.
3. As the traineeship is closely related to the elaboration of the thesis, close collaboration between the academic staff and the field professionals is established.
4. The system and principles for collaboration between the teaching staff members within SP lead to a contribution to the improvement of the study courses, their correlation, and integrated study projects.
5. Participation in larger national, cross-border projects, consortiums is well tied together with the study process ensuring that the study process benefits not only contentwise but also by improving material-technical base.

Weaknesses:

1. Lesser involvement of foreign teaching staff, also foreign experts into the SP (e.g. thesis review) due to the few numbers of the thesis elaborated in other languages (e.g. English).
2. No too widespread information of announced calls for teaching staff candidates, relying more on personal contacts.
3. No evidence of established cooperation mechanism with other SF and SP with the HEI to implement cross-disciplinary teaching and learning process.

5. Assessment of the Compliance of the Study Programme "Landscape Architecture and Planning"

Requirements

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

Assessment of compliance: Fully compliant

The samples of the diplomas is provided and comply with the procedure by which state-recognized documents of higher education are issued.

2. Documents confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued.

Assessment of compliance: Fully compliant

Provided agreement/compliance and Supplemental information to the Agreement between Latvia University of Life Sciences and Technologies and Riga Technical University that confirms that RTU shall undertake and provide learning opportunities in relevant programmes for students of LLU in case the implementation of the study programme is discontinued. The Agreement is applicable to the Professional master programme Landscape Architecture and Planning contained in the SF Architecture and Construction.

- 3 3. Document confirming that the higher education institution/ college guarantees to the students a 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 higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" provided and confirms that if SP is discontinued and students do not wish to continue their studies at RTU, they are reimbursed their tuition fees.

- 4 4. 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

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" confirms (paragraph 7) that Latvian language proficiency of the teaching staff involved in the implementation of SP complies 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.

- 5 5. 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.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" confirms (paragraph 8) that all the teaching personnel of SP in English have a foreign language proficiency level of at least B2 according to the Common European Framework of Reference for Languages (CEFR) (www.europass.lv).

- 6 6. 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.

Assessment of compliance: Not relevant

- 7 7. 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 Institutions of Higher Education.

Assessment of compliance: Not relevant

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

Assessment of compliance: Fully compliant

Study agreement provided in the appendix.

- 9 9. 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 56.1, Paragraph two and Section 56.2, Paragraph two of the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

Study course descriptions submitted and comply with requirements.

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

Assessment of compliance: Fully compliant

Compliance of SP and the qualification with the professional standard is submitted (Annex No. 3). It must be pointed out that presently the SP is developed and implemented according to a current professional standard. It is noted that the professional standard "Landscape architect" is currently in the process of being renewed and reworked by the Latvian Association of Landscape Architects as a professional organization.

Thus Department and SP management should follow its distribution, react and check conformity as soon as the standard is issued.

It must be also remarked that the compliance is submitted for study plans of two consecutive SPs – Academic Bachelor's study programme "Landscape Architecture and Planning" and professional Master's study programme "Landscape Architecture and Planning" – with the profession standard "Landscape Architect". Only both study programmes together provide and fulfill all necessary knowledge required to obtain a professional qualification as a Landscape Architect. Together, both study programmes (bachelor and master) fully meet the qualification goals and tasks set for the profession of a landscape architect (professional standard) (Appendix No.3), but the professional qualification of a landscape architect itself is to be granted after the completion of Master's level studies.

- 11 11. 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 Institutions of Higher Education.

Assessment of compliance: Not relevant

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

Assessment of compliance: Fully compliant

Compliance of the Professional Master's study programme "Landscape Architecture and Planning" with the National Education Standard is submitted and shows compliance to requirements.

- 13 13. The joint study programmes comply with the requirements prescribed in Section 551, Paragraphs one, two, and seven of the Law on Institutions of Higher Education (if applicable).

Assessment of compliance: Not relevant

- 14 14. Each member of the academic staff has either publications published in reviewed editions within the last six years, including international editions (if they have worked for a shorter period of time, the number of publications shall be in proportion to the work period), or artistic creation achievements (for instance, exhibitions, films, theatre performances, and concert activity), or a five-year practical work experience (except for the experience in the implementation of the study programme) in accordance with the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

The study programme complies with the requirements. Justification provided in SAR, p. 164 and Appendix No. 5. Document provides information about publications and experience of practical work (at least 5 years) of the members of the academic staff of the SD.

15 R5 - Overall rating

Assessment of compliance: Fully compliant

The study program shows compliance with all previous requirements.

Requirements (R6-R8)

- 1 R6 - The compliance of the study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision with the conditions for the implementation of the study programme and ensuring the achievement of the learning outcomes.

Assessment of compliance: Fully compliant

The study provision, scientific support, informative provision, material and technical provision, and financial provision comply with the conditions for the implementation of the study programme and ensuring the achievement of the learning outcomes. The LLU has all the necessary resources like study building, LLU Fundamental library, special equipment and software, rooms for student independent and collective work and other technical, financial, and informative supplies in order to be able to implement the SP at a high-quality level.

- 2 R7 - The compliance of the qualification of the academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments.

Assessment of compliance: Fully compliant

The qualification of the academic staff members complies with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments. The LLU ensures qualified, actively involved in the international and national academic and professional practice of landscape architecture academic staff, both local and foreign, in order to implement SP at high-quality level.

- 3 R8 - The study programme leading to the master or doctoral degree is based on the advances and findings in the relevant field of science or artistic creation.

Assessment of compliance: Fully compliant

The LLU and the Department ensure the implementation of SP according to the industry needs and scientific findings by combining theoretical knowledge and practical skills during the traineeship.

Conclusions by specifying the strengths and weaknesses

Professional Master's study programme "Landscape Architecture and Planning" is implemented by LLU in the study field "Architecture and Construction" in Latvian and English in the following formats: 1) 1-year Latvian, 2) 1-year English, 3) 2-years Latvian, 4) 2-years English (Level 5). The graduates of the 1-year form are granted a Professional Master Degree in Landscape Architecture. The graduates of the 2-year form are granted a Professional Master Degree in Landscape

Architecture and professional qualification "Landscape architect".

The sub-field "Landscape Architecture" and the corresponding programs implemented by LLU are the only programs for Landscape architecture and planning in Latvia. The SP is the second of two consecutive study programmes (follow up to Bachelor level program that is linked to Masters programme) that provides the education necessary for obtaining professional qualifications and the right of independent practice in landscape architecture.

The assessment of provided criteria proves formal compliance of the SP with the requirements prescribed in the Law on Institutions of Higher Education and other regulatory enactments receiving general evaluation as "fully compliant".

There are no particular Strengths and Weaknesses indicated for this section respectively to the abovementioned criteria. An elaborate analysis is provided and particular worth to notice details are indicated in the textual part of the assessment.

Overall evaluation of SP by the experts is based on clear evidence of the elevated quality of teaching, provision, academic staff qualification, the structure of the program, the quality of the student's work, SP recognition in Latvia during the accreditation period. SP is seen as dynamic and strongly developing, therefore the weaknesses listed for all criteria, as well as related recommendations should be considered rather as issues for discussions and potentials for improvement than lower evaluation.

Evaluation of the study programme "Landscape Architecture and Planning"

Evaluation of the study programme:

Good

6. Recommendations for the Study Programme "Landscape Architecture and Planning"

Short-term recommendations

SP and department leadership have to revise and even out the admission requirements for MA-level students (this recommendations is connected to the need to establish interaction of local and foreign students through "connecting" the study forms – LV and ENG).

SP and Department leadership together with academic staff should elaborate and revise the contents/composition of the thesis in order to have stronger relation to needs of professional practice, stimulate innovations and creativity, improve thesis graphic representation and linguistic quality, for instance, considering the study course "Academic writing language" on MA level.

SP directors together with academic staff should advance the aesthetic and graphic quality of project outcomes, e.g. for instance in the school's Yearbook.

Long-term recommendations

The SP and department leadership with the support from LLU structural institutions, especially International Cooperation Centre, should elaborate strategy for facilitation and upgrowth of the English study form of SP towards resultative international student attraction. Merging both study forms should be considered.

Increase international visibility of the SP by increasing involvement of foreign experts and permanent teaching staff (in long term) in order to explore Latvian and foreign case studies, thesis co-supervision, participation in the jury work, as well as teaching, reviewing, tutoring, publishing, supervising theses etc.

The SP and department leadership should review possibilities and implement crossdisciplinary collaboration with other faculties of the SF (by synergies between courses, interrelated course assignments, and in developing the master thesis topics) and other LLU SFs.

The Department, the faculty, and the management of LLU should set forth the development and implementation of outdoor training and practice labs should be moved forward.

The LLU and the Department should work on dissemination of the research results, fulfilled projects and other activities in order to raise visibility and popularity of the SP and its activities, e.g. exhibitions, public presentations.

LLU Management, together with Faculty and Department should consider the provision of catering services in Valdeka castle campus.

II. "Civil Engineering" ASSESSMENT

II. "Civil Engineering" ASSESSMENT

1. Indicators Describing the Study Programme

Analysis

1.1 The professional master study programme "Civil Engineering" implemented in the Latvian language provides a professional master's degree in Civil Engineering and no professional qualification is provided. After completion of the Master's programme, a Professional Master degree in Civil Engineering is awarded. That is a full-time study with one-year duration. The title of the professional master study programme "Civil Engineering" reflects the construction industry's normative framework and multifaceted nature, which is included in the study programme plan in the form of study courses and topics. The Professional Master's study programme "Civil Engineering" includes both basic topics of the construction area, related to development of building materials and research of their qualities, building structures, organisation and technologies of construction works, and several unique directions, implemented only at LLU. The parameters of the professional Master's study programme "Civil Engineering" have not changed since the licensing and accreditation in 2015. From the SAR and Appendix No. 2 significantly the drop-out rate (on average 3-5 students per year) is mainly affected by the very intensive study work in the acquisition of theoretical courses and the development of the experimental work during one year. In such cases, students use an academic leave of absence, which must also be used by students who have chosen a more complex research topic, which has not been possible to implement within one year (program implementation time). Most students successfully integrate into the study process and submit their Master's Thesis in time. Every year, an average of 6 - 14 students graduate from the study programme. The study program complies with the Cabinet Regulations No. 512 of August, 26, 2014, "Regulations on the State Second Level Professional Higher Education Standard" (Appendix No. 1). The name of the professional master study programme Civil Engineering, the degree to be acquired, the aims, objectives, learning outcomes, and admission requirements are interrelated, defined and included in study courses descriptions (Appendix No. 5). Studies and research include several unique directions, which in Latvia are learned and studied in-depth only at LLU. During the site visit and based on SAR, it is visible that there is no cooperation with other LLU study programs and the development of

multidisciplinary study courses. Mapping of the study courses for the achievement of the learning outcomes of the study programme is provided (Appendix No. 4), which enables us to see precisely how specific learning outcomes of individual courses are connected with learning outcomes of the study programme and how they contribute to their achievement.

Conclusions by specifying the strengths and weaknesses

The professional master study programme Civil Engineering is implemented by LLU in the SF Architecture and Construction, graduates are granted Professional master degree in Civil Engineering, and no professional qualification is provided. Admission requirements are clear, transparent and ensure the quality of the enrolled students. Studies in the specialty of civil engineering at LLU are practically oriented, providing competency-based education. Aims, objectives, learning outcomes and admission requirements of the professional master study programme Civil Engineering, in general, are interrelated and comply with the SF Architecture and Construction. Professional master's study programme "Civil Engineering" includes both basic topics of the construction area, related to development of building materials and research of their qualities, building structures, organisation and technologies of construction works, and several unique directions, implemented only at LLU.

Strengths:

1. Admission rules ensure the high quality of enrolled students.

Weaknesses:

1. The decrease in the number of students/number of dropouts;
2. Lack of cooperation with other LLU study programs and the development of multidisciplinary study courses.

2. The Content of Studies and Implementation Thereof

Analysis

2.1. Descriptions of study courses, the traineeship, and the final thesis are clear, available to students and faculty, and in general, comply with the provisions outlined in the regulatory enactments. The study content is relevant and complementary and it complies with the aims of the professional Master study programme "Civil Engineering", ensures achievement of general learning outcomes, meets the needs of the relevant industry and the scientific trends. It should be highlighted that study content is up-to-date and follows the current tendencies in civil engineering. The majority of topics of theses are dedicated to studies of structure elements and functioning of their units, as well as studies of mechanical properties of new, efficient materials. This can be explained with in-depth interest and active involvement of master students in research of the Building Materials and Building Structures Scientific Laboratories. Several Master Theses have received awards from the sector, for example, in 2019 two master's programme graduates were awarded by "Construction Industry Award" in the nomination "Student of the year" for the excellence of their master theses on topics "Comparison of geotechnical investigation methods of static probing and flat dilatometer test" and "Fire safety modelling and solutions of timber buildings – egress of pre-school education facilities". This proves the topicality of these topics and their practical application in resolving problems in the sector. Significant role in the professional Master's study programme is assigned to the traineeship "Research in Civil Engineering" – volume: 6 CP (9 ECTS). The research traineeship is related to the specialisation direction and the topic of the master thesis. When the master's student has chosen the specialisation, department, in which to develop the master thesis, and the department has approved the scientific supervisor and topic of the

master thesis, the master's student shall discuss the research traineeship issue together with the supervisor. The organisation of the traineeship at the University is implemented in accordance with the LLU Traineeship Regulation (Senate decision No.8-130 of November 12,2014) and in accordance with the traineeship programme approved by the department. Students find their own traineeship positions, and many of them choose to do so through the network of LLU partners and Alumni, SAR p. 398. The traineeship tasks are closely linked to the defined outcomes to be achieved in the study programme, especially competences to independently set and solve research tasks in the chosen direction of the master thesis (Appendix No. 4). In general, course outlines comply with the already defined aims of the professional master study programme "Civil Engineering" and meet the needs of the relevant industries and scientific research. Graduates of LLU are successfully employed already during or after the studies, which proves that the study programme meets the needs and requirements of the market.

2.2. The study implementation methods, including the evaluation methods, contribute to the achievement of the aims and learning outcomes of the study courses and the professional master study programme "Civil Engineering" how they are defined at this moment. Appendix No. 1 contains information on the compliance of the qualification to be obtained in the professional master's study programme "Civil Engineering". The content of the programme and study courses is in close relation with actualities in the field of construction. The content of the study courses are regularly updated in accordance with the needs of the construction industry and the labour market, as well as the latest scientific innovations, technologies and development trends. The cooperation between the VBF and entrepreneurs in the sector, majority of whom are graduates of civil engineering speciality, has developed since the establishment of the programme. Graduates of the programme are attracted as visiting lecturers, reviewers of master theses, members of the examination commission. Each year, representatives of institutions and organisations of the sector are invited to participate in the commission – from the Latvian Association of Civil Engineers, municipal construction organisations and designing offices. A significant role in the study programme is allocated to the practice "Research in Civil Engineering", for implementation of which agreements with companies are concluded. After meeting with students and lecturers, it is evident that surveys for assessment of the content of study courses and lecturer's work are not obligatory, and lecturers are not motivated enough to further motivate students to complete surveys. The principles of student-centered education in the study programme are implemented. During the on-site visit, students have mentioned that they are aware of the procedures and principles of student-centred education, but they did not give examples of implementation. Students should be better informed about these principles.

2.3. The outcomes of the surveys conducted among the students, employers, and graduates are used to improve the quality of studies. During the meeting with academic/teaching staff it was concluded there are no surveys for lecturer's (academic staff), and they do not have the opportunity to provide their assessment of the content of the study course and the student's work at the end of each semester. Students and faculty confirmed that the surveys are regularly conducted and afterwards taken into consideration, and necessary adjustments, if any, are made. Feedback from the employers in the sector "Civil Engineering" is usually compiled and analysed by the study directors, which noted that the survey data is used to improve the study process and often results in adjustments of the studies. Suggestions and recommendations of experts are taken into account in assessment and improvement of the study programme, for example, recommendations of foreign experts attracted within the framework of the European Union funds project 8.2.3.0/18/A/009 "Improvement of Management of LLU".

2.4. Taking into account the implementation period of the program - 1 year, students do not use the

ERASMUS + mobility program. Incoming mobility of master students was not implemented during the reference period.

Conclusions by specifying the strengths and weaknesses

Descriptions of the study courses, traineeship and thesis writing rules are developed and available to students, and in general, comply with the provisions outlined in the regulatory enactments. The content of study courses is relevant and complementary. It complies with the aims of the professional master study programme “Civil Engineering”, ensures the achievement of the general learning outcomes, and meets the needs of the relevant industry and the scientific trends. There is evidence of the implementation of student-centered learning and teaching, ensured traineeship and the revision of students complaints. Students, graduates, and employers confirmed that the surveys are conducted and afterwards taken into consideration, and necessary adjustments, if any, are made. Only a few surveys are conducted every academic year because they are not obligatory. During the site visit and based on SAR, it is visible that there is no cooperation with other LLU study programs and the development of multidisciplinary study courses. Mapping of the study courses for the achievement of the learning outcomes of the study programme is provided (Appendix No. 4), which enables to see precisely how specific learning outcomes of individual courses are connected with learning outcomes of the study programme and how they contribute to their achievement.

Strengths:

1. Up-to-date curriculum of the professional master study programme “Civil Engineering”;
2. Student-centred learning and teaching are broadly applied in study courses; students have the possibility to be involved in study process assessment;
3. Mandatory traineeship has enhanced the practical part of the professional master study programme “Civil Engineering”; network of LLU partners and Alumni ensure traineeship possibilities to the students of the programme domestic and abroad companies;
4. Graduates of the programme are attracted as visiting lecturers, reviewers of master theses, members of the examination commission.

Weaknesses:

1. Lack of surveys for academic staff to provide their assessment of the content of the study course and the students’ work at the end of each semester
2. Lack of mandatory surveys for all levels (students, staff, graduates, employers)
3. Low level of encouraging and motivating students to take part in mobility programs during their traineeship.

3. Resources and Provision of the Study Programme

Analysis

3.1. The study provision, scientific support, informative provision (including libraries), material, and technical provision in LLU is well equipped (enough). In a SAR and on a site visit, Experts were provided with information and introduction to the resources of the study program, which consist of three main groups - equipment, software and literature.

There are several good (some of them newly) equipped laboratories, which are being involved in study and science processes of the study programme implementation: training laboratory for construction materials; building physics laboratory; research and training laboratories of structural engineering; soil mechanics training laboratory; laboratory of pumps and the hydraulic modelling laboratory; water supply and sewerage laboratory; land surveying training laboratory and also GIS Competence Center (established within the framework of the Latvian-Lithuanian cross-border

cooperation project). Special function for this study programme has acoustics laboratory, which is designed for testing the environment. This laboratory was exclusively welcomed by social partners of the Faculty, who paid special attention to these premises and would prefer to collaborate with the Faculty in order to test new materials.

The VBF has good enough computer equipment and software for all basic knowledge necessary to prepare civil engineers and is equipped with BIM support software. Several computer auditoriums (around 25 workplaces) are available for students; the classrooms are equipped with interactive displays and whiteboards. Based on the information received on the site visit, the equipment is accessible for the students after classwork.

However, it is highly recommended by Experts and almost all the interviewers (employees, teachers, students) to have the newest versions of Soft. It would be beneficial to integrate into the study programme courses enacting modern up-to-date soft (f.e. RFEM Dlubal, Tekla Structure, IDEA Static). There are always possibilities for development and improvement, for instance, software, and as a result more powerful computers for new softs.

LLU has a well-developed Fundamental library and premises, with good access to various databases and online accessibility, also from outside the campus, which is very prize worth, especially during the pandemic period. Students have an opportunity to use the Faculty of Environment and Civil Engineering Information Centre with free access to the LLU Fundamental Library database (SAR p. 201) and have some spaces for individual work. Also, two computer classes with 49 are available for students (SAR p. 202) in the programme, which are accessible for them for after class work.

In addition, ample space of the Faculty has considerable potential to recruit the areas. Experts noticed underused premises of Building of Environment and civil engineering faculty and critical condition of some of them. The building requires update and renovation, in both – energy efficiency and decent outlook. In SAR SWOT analyse (p. 35), as a weakness is mentioned – the lack of territory for the establishment of outdoor laboratories to implement the study process and scientific activity of the study programme. However, there are plans and potential to develop them.

LLU has a well organised structure of revenues and expenditures of the general budget of the HEI, which, basing on the information presented in SAR (p. 403), is prepared in accordance with the Law on the State budget, passed annually by the Latvian Parliament and the Rector of LLU. The distribution also is being reviewed and approved by all necessary parties, which are collected into the Working group on Resource Use. Taking into consideration this fact, it can be stated that financial provision of this study programme complies with the features needed to implement it. However, even considering that during the reporting period, the funds and financial support have increased, the expenditures raised up as well (SAR p. 405), which shows that the tuition fees do not cover the study cost. In the long term this can cause financial problems.

3.2. Not applicable

Conclusions by specifying the strengths and weaknesses

Resources and provision of the Study Programme are well equipped (enough), with several good (some of them newly) laboratories, a well-developed Fundamental library and premises, and access to various databases and online accessibility. The faculty has good computer equipment and software for all basic knowledge necessary to prepare civil engineers. However, there are always possibilities for development and improvement, for instance, software, and as a result more powerful computers for new software. The big space of the Faculty's premises has considerable potential for development and needs to be renovated to improve the energy efficiency and decent outlook.

Strengths:

1. Well developed technical infrastructure, equipment, digital technologies, which are suitable and good enough for the basic knowledge;
2. Well developed Fundamental library and premises, good access to various databases and online accessibility also from outside of the campus;
3. Ample space of the Faculty has considerable potential to recruit the areas;
4. Big potential of acoustics laboratory, designed for testing the environment.

Weaknesses:

1. The VBF faculty building requires update and renovation, in both – energy efficiency and decent outlook.

4. Teaching Staff

Analysis

4.1. The number of academic staff involved in the professional master's study programme "Civil Engineering", based on SAR (p. 405) of the programme has appropriate qualification - 81% having PhD degree and 19 % – Master's degree. Several members of the teaching staff also have a professional practice at building organisations and designing offices as the responsible certified specialists.

Based on SAR (p. 405), some lecturers who teach this specialisation study courses at LLU are at the same time representatives from business companies and are responsible certified specialists. This is an excellent practice that helps the students and university receive the newest up-to-date material about the study course, which is being taught to them. This circumstance was discussed very positively on a site visit in the meeting with university staff and students. Students are very satisfied with those lectures, who have double experience (academic and industry).

In addition, faculty have made changes to the composition of the teaching staff in the reporting period, with regard to generation change – retirement and the involvement of new members of the teaching in the study programme.

4.2. It's price-worthy that the university took into account the previous experts' recommendation to reduce the average age of the academic staff and has been starting to implement that. More academic staff members under the age of 45 have been attracted to the SF. This fact was approved by several parties on a site visit as well. However, it still feels that the level of English knowledge of some teachers needs to be increased. According to the opinion of the students – they are happy with the level of qualification of the teachers, especially that many of them are representatives from industry. This is very much price-worth it.

In addition, basing on SAR's (p. 407) the qualification of the teaching staff involved in the programme is regulated by LLU Regulation on Academic Positions (Senate decision No.10-53 of 11.12.2019) and the election for a respective academic position confirms compliance of the person's academic and professional qualification both to the study and research work.

It is also prise-worth that the teaching staff was appreciated by multiple awards - writs of honor, awarded by professional organisations, awards of the Ministry of Education and Science and awards of the Ministry of Agriculture.

4.3. Not applicable

4.4. To integrate the newest up-to-date information in the study process, it is crucial that academic staff actively implement scientific research, especially in the field, related to the content of the study programme. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals.

However, not all of those projects are strictly in the content of the study programme. Some of them are participating in their own science initiatives. This is a favorable circumstance, but from another hand does not allow developing the recommence study processes. Moreover, proactive participation in international research projects is recommended. A more considerable initiative is needed from the Faculty management and the project management/development department to initiate the research project collaboration (on National and International levels). Additionally, more active involvement of students in science projects is highly recommended.

4.5. Based on SAR's information (p. 411) - the ratio between the number of students and the teaching staff of the professional Master's programme Civil Engineering is 8.7 as of 01.09.2020, which is good. There are several activities in the Faculty, which shows that the mutual collaboration between the teaching staff and partners outside the university is being implemented to promote cooperation and ensure interrelation between the study courses/modules (research contracts with companies from the industry; European Union-funded research projects; development of laboratories; taking part in international professional and scientific, organisations and working groups; etc. (SAR p. 411)

Conclusions by specifying the strengths and weaknesses

The teaching staff, involved in the professional master study programme Civil Engineering, comply with the prescribed requirements and relevant criteria, obligatory to implement this study programme. There are also excellent practises in the Faculty. For example, a part of the teaching staff are representatives from business organisations, which brings added value to the quality of the study programme and helps students and the university to receive the newest up-to-date material. However, minor deficiencies, like the insufficient level of English knowledge of some teachers, have been identified. These deficiencies, placed in the section "weaknesses", still need to be improved.

Strengths:

1. The programme has the appropriate qualification of teaching staff - 81% having PhD degree and 19% - Master's degree;
2. Some lecturers who teach this specialisation study courses at LLU are at the same time representatives from business companies and are responsible certified specialists;
3. Faculty have made changes to the composition of the teaching staff in the reporting period, with regard to generation change;
4. Teaching staff was appreciated by multiple awards;
5. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals.

Weaknesses:

1. The level of English knowledge of some teachers needs to be increased;
2. More considerable initiative is needed from the Faculty management and the project management/development department to initiate the research project collaboration.

5. Assessment of the Compliance of the Study Programme "Civil Engineering"

Requirements

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

Assessment of compliance: Fully compliant

The sample of the diploma is provided and complies with the procedure by which state-recognised documents of higher education are issued - in the section of annexes "Description of the Study Direction - Other mandatory attachments"

- 2 2. Documents confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued.

Assessment of compliance: Fully compliant

Provided compliance and AGREEMENT between LATVIA UNIVERSITY OF LIFE SCIENCES AND TECHNOLOGIES and RIGA TECHNICAL UNIVERSITY confirm that RTU shall undertake and provide learning opportunities in relevant programmes for students of LLU in case the implementation of the study programme is discontinued. The Agreement is applicable to the Professional Master's study programme "Civil Engineering" contained in the fields of study Architecture and Construction. Provided in the section of annexes "Description of the Study Direction - Other mandatory attachments"

- 3 3. Document confirming that the higher education institution/ college guarantees to the students a 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 higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" provided and confirms that if SPis discontinued and students do not wish to continue their studies at RTU, they are reimbursed their tuition fees – Provided in the section of annexes "Description of the Study Direction - Other mandatory attachments"

- 4 4. 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

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" confirms (paragraph 7) that Latvian language proficiency of the teaching staff involved in the implementation of SP complies 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 – Provided in the section of annexes "Description of the Study Direction - Other mandatory attachments"

- 5 5. 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.

Assessment of compliance: Not relevant

- 6 6. 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.

Assessment of compliance: Not relevant

- 7 7. 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 Institutions of Higher Education.

Assessment of compliance: Not relevant

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

Assessment of compliance: Fully compliant

Study agreement provided in the appendix – in the section of annexes "Description of the Study Direction - Other mandatory attachments".

- 9 9. 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 56.1, Paragraph two and Section 56.2, Paragraph two of the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

Submitted descriptions - 5 appendix in the annexes section "III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof".

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

Assessment of compliance: Not relevant

- 11 11. 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 Institutions of Higher Education.

Assessment of compliance: Not relevant

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

Assessment of compliance: Fully compliant

Submitted compliance of the Professional Master's study programme "Civil Engineering" with the National Education Standard * According to the applicable National Education Standard, Regulation No 512 "Regulation regarding the National Standard of the Professional Higher Education of the Second Level" adopted by the Cabinet of Ministers on 26 August 2014: <https://likumi.lv/doc.php?id=268761>, 1 appendix in the annexes section "III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof".

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

Assessment of compliance: Not relevant

- 14 14. Each member of the academic staff has either publications published in reviewed editions within the last six years, including international editions (if they have worked for a shorter period of time, the number of publications shall be in proportion to the work period), or artistic creation achievements (for instance, exhibitions, films, theatre performances, and concert activity), or a five-year practical work experience (except for the experience in the implementation of the study programme) in accordance with the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

SAR, p. 407,-411., Appendix to SAR, 5 appendix in the annexes section "III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof".

- 15 R5 - Overall rating

Assessment of compliance: Fully compliant

Study program complies with all previous requirements.

Requirements (R6-R8)

- 1 R6 - The compliance of the study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision with the conditions for the implementation of the study programme and ensuring the achievement of the learning outcomes.

Assessment of compliance: Fully compliant

LLU has all the necessary resources (technical, financial, informative) to be able to implement the professional master study programme Civil Engineering to fulfill R6 criterion. Assessment in the LLU and Experts analysis (Chapter 3).

- 2 R7 - The compliance of the qualification of the academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments.

Assessment of compliance: Fully compliant

The teaching staff, involved in the professional master study programme Civil Engineering, comply with the prescribed requirements and relevant criteria, obligatory to implement this study programme.

- 3 R8 - The study programme leading to the master or doctoral degree is based on the advances and findings in the relevant field of science or artistic creation.

Assessment of compliance: Fully compliant

Experts' analysis, Chapter 2. Meetings with the programmes' directors, students, alumni and field professionals, analysis of SAR provide evidence for the excellent fulfillment of the criteria R8.

Conclusions by specifying the strengths and weaknesses

The professional master study programme "Civil Engineering" implemented in Latvian language provides a professional master degree in Civil Engineering and no professional qualification is provided. After completion of the Master's programme, a Professional Master degree in Civil Engineering is awarded. That is full-time study with one year duration. Admission requirements are clear, transparent and ensure the quality of the enrolled students. Studies in the specialty of civil engineering at LLU are practically oriented, providing competency-based education. Aims,

objectives, learning outcomes and admission requirements of the professional master study programme Civil Engineering, in general, are interrelated and comply with the SF Architecture and Construction. Descriptions of the study courses, traineeship, and thesis writing rules are developed and available to students, and in general, comply with the provisions outlined in the regulatory enactments. The content of study courses is relevant and complementary. It complies with the aims of the professional master study programme “Civil Engineering”, ensures the achievement of the general learning outcomes, and meets the needs of the relevant industry and the scientific trends. There is evidence of the implementation of student-centered learning and teaching, ensured traineeship and the revision of students' complaints. Students, graduates, and employers confirmed that the surveys are conducted and afterwards taken into consideration, and necessary adjustments, if any, are made. Only a few surveys are conducted every academic year because they are not obligatory. During the site visit and based on SAR, it is visible that there is no cooperation with other LLU study programs and the development of multidisciplinary study courses. Mapping of the study courses for the achievement of the learning outcomes of the study programme is provided, which enables us to see precisely how specific learning outcomes of individual courses are connected with learning outcomes of the study programme and how they contribute to their achievement.

Resources and provision of the Study Programme are well equipped (enough), with several good (some of them newly) laboratories, a well-developed Fundamental library and premises, and access to various databases and online accessibility. The faculty has good computer equipment and software for all basic knowledge necessary to prepare civil engineers. However, there are always possibilities for development and improvement, for instance, software, and as a result more powerful computers for new softs. The big space of the Faculty's premises has considerable potential for development and needs to be renovated to improve the energy efficiency and decent outlook.

The teaching staff, involved in the professional master study programme Civil Engineering, comply with the prescribed requirements and relevant criteria, obligatory to implement this study programme. There are also excellent practises in the Faculty. For example, a part of the teaching staff are representatives from business organisations, which brings added value to the quality of the study programme and helps students and the university to receive the newest up-to-date material. However, minor deficiencies, like the insufficient level of English knowledge of some teachers, have been identified. These deficiencies, placed in the section "weaknesses", still need to be improved.

Study program complies with all the key points, which facilitate the assessment of the compliance of the study program with the requirements prescribed in the Law on Institutions of Higher Education and other regulatory enactments. All required documents, justifications are submitted and evaluated as valid.

Whilst assessing the compliance of the study programme with the prescribed requirements, minor deficiencies have been identified.

Strengths:

1. Admission rules ensure high quality of enrolled students;
2. Up-to-date curriculum of the professional master study programme “Civil Engineering”;
3. Student-centred learning and teaching are broadly applied in study courses; students have the possibility to be involved in study process assessment;
4. Mandatory traineeship has enhanced the practical part of the professional master study programme “Civil Engineering”; network of LLU partners and Alumni ensure traineeship possibilities to the students of the programme domestic and abroad companies;
5. Graduates of the programme are attracted as visiting lecturers, reviewers of master theses, members of the examination commission
6. Well developed technical infrastructure, equipment, digital technologies, which are suitable and

good enough for the basic knowledge;

7. Well developed Fundamental library and premises, good access to various databases and online accessibility also from outside of the campus;

8. Ample space of the Faculty has considerable potential to recruit the areas;

9. Big potential of acoustics laboratory, designed for testing the environment;

10. The programme has appropriate qualification of teaching staff - 81% having PhD degree and 19% – Master's degree.

11. Some lecturers who teach this specialisation study courses at LLU are at the same time representatives from business companies and are responsible certified specialists.

12. Faculty have made changes to the composition of the teaching staff in the reporting period, with regard to generation change.

13. Teaching staff was appreciated by multiple awards.

14. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals.

Weaknesses:

1. Low level of encouraging and motivating students to take part in mobility programs during their traineeship.

2. The decrease in the number of students/number of dropouts;

3. Lack of cooperation with other LLU study programs and the development of multidisciplinary study courses.

4. Lack of surveys for academic staff to provide their assessment of the content of the study course and the students' work at the end of each semester

5. Lack of mandatory surveys for students, staff.

6. Low encouragement and motivation for students to take part in mobility programs during their traineeship.

7. The building requires update and renovation, in both – energy efficiency and decent outlook;

8. The level of English knowledge of some teachers needs to be increased;

9. More considerable initiative is needed from the Faculty management and the project management/development department to initiate the research project collaboration.

Evaluation of the study programme "Civil Engineering"

Evaluation of the study programme:

Good

6. Recommendations for the Study Programme "Civil Engineering"

Short-term recommendations

Improvement of cooperation with other LLU study programs and the development of multidisciplinary / integrated study courses.

LLU should introduce surveys for academic staff to provide their assessment of the content of the study course and the student's work at the end of each semester.

Surveys on feedback should be determined as obligatory for all involved parties of study process – students, staff, graduates.

SP Director should introduce surveys as obligatory for employers (e.g. within the documents related to the implementation of traineeship).

More active involvement of students into the science projects is highly recommended.

The level of English knowledge of some teachers needs to be increased.

Long-term recommendations

To create more efficient support system for decreasing the number of students dropouts.

Raise the level of support, encouragement and motivation of students to take part in mobility programs during their traineeship.

The facilities of VBF have a big potential to recruit the spaces. Experts noticed underused premises of Building of faculty, as well as critical condition of some of them. The building requires update and renovation, in both – energy efficiency and decent outlook.

It can be very beneficial and highly recommended to have additional newest up-to-date versions of Softs (f.e. RFEM Dlubal, Tekla Structure, IDEA Static).

Proactive participation in international research projects is recommended. As well as the bigger initiative is needed from the Faculty management and the project management/development department in order to initiate the research project collaboration (on National and International level).

Keeping moving in the same direction regarding the changes of the composition of the teaching staff and the generation change is very commendable.

II. "Landscape Architecture" ASSESSMENT

II. "Landscape Architecture" ASSESSMENT

1. Indicators Describing the Study Programme

Analysis

1.1. Doctoral study programme "Landscape Architecture" is a 3 years (120 credits) long full-time study programme implemented by LLU in Latvian. After successful defense of the dissertation, graduates obtain a degree – Doctor of Science (Ph.D.) in Arts, Music and Architecture (until 2019 – Doctor of Architecture (Dr.arch.) in Landscape Architecture sub-branch) (SAR, p. 261). The changes in degree title are based on Cabinet of Ministers regulations and determined by the latest classification of Latvian science disciplines and subdisciplines (justification is provided in SAR, p. 261). These changes and "the growing relevance of interdisciplinary research" (SAR, p. 261) led also to admission requirements for the SP – previously, admission requirements were set for previously obtained master's degree in Architecture; now – applicants should have "Master's degree or equivalent higher education in the field of landscape architecture, architecture, urban planning or spatial planning". The SP plans to review the conditions, extending them to students from fields related to Landscape Architecture – Architecture, Environmental Sciences, Geography, etc. (SAR, p. 262).

The studies take place (mainly) in Jelgava, Valdeka castle study building, Lielā iela 2.

There was confusion about the study program director as the person indicated in SAR was not participating in the meetings, being replaced by another staff member as SP director. There was no explanation provided about this change.

Currently, the English form of SP is created and will be implemented in the future. Admission rules of the programme additionally include the English language knowledge at least at B2 level for foreign applicants. Experts recommend introducing English requirements for all, not just foreign students.

During the reporting period, there are only students (4-6 per year) in state-funded study places (SAR, p. 261, Appendix 1). According to HEI, this number generally corresponds to the overall demand for specialists with doctoral degree. The periods for the increase of students' interest, collide with a worse economic situation and decline of work in the country. Opportunities to work in the industry reduce the number of active students. In the period from 2013-2021, 9 graduates of the SP obtained a doctoral degree (SAR, p. 262) – overall, statistics show that 50% defend their doctoral thesis and obtain a degree.

Until 2015 there was support for PhD students available (from ESF co-financed project) grants in the form of a monthly scholarship. The evidence, gained from the meetings with the Study directors and alumni, that a feasible system was set up, attributing the scholarship to the student in a way, which benefited result-oriented work. The scholarship was “reserved” to the student for the whole doctoral study period and the system of strong monitoring was in place. It ensured a balanced number of students, completed the studies and obtained the doctoral degree. After this period the number of PhD students dropped on the level before year 2015. As observed by the experts, expressed by PhD students of the program and stated in SAR (p. 262), it would be necessary to stimulate and help students to study, complete the programme and defend the thesis by providing additional, competitive subsidiary funding, scholarships or by other forms of financial support. Otherwise students are forced to split the PhD studies and research between work in the industry, it impacts the quality of the research and time in which students are able to defend their thesis. However the role of the Department and the Faculty in the decision making on the issue is limited.

Experts appraise that LLU has been working on support programs / tools in the recent years – “Strengthening Scientific Capacity of LLU” and “Carrying out Fundamental Research at LLU”. So far this support has been used by 2 students of the LA program (SAR, p. 263). LLU also has means on how to involve PhD students in academic work, attracting them to elected positions. By establishing the Doctoral school LLU aims to provide a different funding model and provide greater connection for developed research directions (directions will be strengthened by reducing the fragmentation of research, creating succession and visibility), and possible involvement in various research projects. And starting from 2021, a new support program is launched – doctoral students can apply for a grant for research within the project “LLU transition to the new doctoral funding model”. The academic staff of the Department of Landscape architecture is fully aware of the possibilities and closely collaborating with the LLU Doctoral school to master the transition to the new model.

The doctoral SP “Landscape Architecture” implemented by LLU follows MA studies and is the final stage in landscape architecture education. The sub-field of “Landscape Architecture and Planning” and the corresponding programs implemented by LLU are the only programs for Landscape architecture and planning in Latvia and are developed closely with the whole field and in close contact with the Latvian Association of Landscape Architects. From the experts side it is very important to note that the sub-field (and its programmes) is unique and LLU should continue to use its exclusive position by developing it as an outstanding education and research centre of LA – important to the field and national economy, and future academic and scientific staff. It means among others promoting international recognition of SP and PhD's, attracting foreign researchers and specialists, while no evidence found that SP has or have had international students.

The aim of the SP is to prepare “highly qualified scientific specialists in the field of Landscape Architecture in accordance with international standards, providing doctoral students with high-level theoretical studies necessary for the development of a qualitative doctoral thesis and for obtaining a

degree, as well as independent research, approbation and pedagogical work" (SAR, p .258) through the set of tasks that include theoretical training, pedagogical practice, research result promotion, defence of thesis in the promotion council. As for future ambition, Experts would recommend accentuating "highly qualified internationally recognised scientific specialists". Also – it would be necessary to strive for innovation, originality and new knowledge production, added value in publications and research. Aim for high-quality publications – also other than LLU scientific journal "Landscape Architecture and Art".

The name of the program, the degree to be acquired, learning outcomes and admission requirements are interrelated, are defined in the program's regulations and procedures, available on an e-learning platform, and included in study courses descriptions. The learning outcomes – knowledge, skills and competencies are interdisciplinary oriented, are achievable and formulated according to the program and degree. Therefore knowledge providing tasks are aimed at current scientific theories and findings in landscape architecture and their relation with other fields of science and at advancing the understanding of research methodology and modern research methods in landscape architecture.

Conclusions by specifying the strengths and weaknesses

Doctoral study programme "Landscape Architecture" is a full time study programme, which grants a degree Doctor of Science (Ph.D.) in Arts, Music and Architecture. The general quality of the SP within the Department of Landscape Architecture and planning improved and after the transition to the Bologna system and it also contributed to the raised quality of doctoral SP. The programme largely follows the recent development of science and research findings in landscape architecture and planning. SP is strongly oriented towards interdisciplinarity and cooperation by opening admission for the specialists from the related fields of architecture, urban or spatial planning, in future also to the students from Environmental Sciences, and Geography.

Despite the lack of external grants and funding, the number of students remained stable due to internal LLU support. Currently, SP is preparing for the transition of LLU to the new model of doctoral studies aimed at enchanting the research field. The new model should largely contribute to developing the Doctoral program as an education and research center in the field of Landscape architecture and as such, it should be developed also in the future.

The learning outcomes and the results are consequently related to the field, advancing the understanding of landscape problematics and methodology of the research in landscape architecture and planning. The Doctoral programme can be viewed as a profound example of developing the PhD studies in landscape architecture in the post-soviet environment.

Strengths:

1. Unique and only SP in Latvia that offers PhD degree in Landscape architecture;
2. The only scientific hab in Lavia, which consequently works in the field of landscape architecture and planning;
3. The SP is a carrier of the teaching quality and ensures obtainment of new teaching staff in the SP of lower bachelor and master's level;
4. Established LLU internal support for doctoral students;
4. Doctoral studies and research in landscape architecture is also part of scientific directions developed in LLU.

Weaknesses:

1. Low international recognition of program, researchers and specialists;

2. There is no international joint PhD programme;
3. Insufficient financial support for PhD students, which discourages new applications and puts at risk finalizing the dissertation.

2. The Content of Studies and Implementation Thereof

Analysis

2.1. The content of the doctoral study programme "Landscape Architecture" implemented by LLU is mainly based on the up-to-date research findings and relevant to landscape research and landscape architecture and planning.

The course structure is relevant and complimentary, it consists of Compulsory courses (theoretical study courses) (10 CP), Restricted sub-discipline elective courses (16 CP), and a Scientific work section (94 CP). The CPs are effectively distributed between the content of SP, supporting the elaboration of the dissertation by theoretical and the elective courses, for example, the theoretical block includes a course of research methodology and obtaining a professional foreign language.

The thematic organisation meets the needs of the relevant industry and the scientific trends. It consists of 4 encompassing thematic groups – Housing areas, Public spaces, Rural landscape and cultural heritage, sustainable development and the green economy, these are closely related to the current topics and strategies of the field of landscape architecture, planning and urbanism (SAR, p. 266).

The research topics are based on the findings of the European Landscape Convention, which are aimed at identifying, preserving and passing on the specific nature of each country's landscapes, as well as everyone's right to a quality living environment and landscape around them. The research topics also comply with the vision of LLU, which emphasizes the sustainable use of natural resources to increase the quality of life of the society, as well as with the Latvian Sustainable Development Strategy and other initiatives based on the introduction of the circular economy in Latvia (Latvian Bioeconomy Strategy, etc.).

For now, there is no evidence found that SP attracts international students or the joint PhDs would be elaborated. Contentwise the program focuses on the Latvian landscapes (SAR., p. 269) and on the interface of urban and rural. On one hand, it can be seen as a strength because the landscape architecture discourse in Latvia is still developing and not yet formed. However, this strong specialization contains a risk of overlooking the possibilities to develop frontier research.

Since the degree obtained by PhD students includes arts, music and architecture, thus boldly oriented towards interdisciplinarity, the content of SP, the course description is awaited to include the scope of related subjects. However, after analysis of SAR, meetings with teaching staff and alumni there is no indication of interdisciplinary collaboration with other creative fields.

Thematic directions of SP are related to current initiatives on sustainable development and the green economy, including several international strategies, such as the European Green Deal. These initiatives are also linked to the provision of biodiversity, ecosystem services, the development of adaptive solutions to climate change (EU Biodiversity Strategy; EU Green Infrastructure Strategy, etc.). These tracks could be an excellent opportunity for increasing international visibility of Latvian landscape discourse, involvement of top researchers, establishing joint PhDs, as well as for enchanting scientific international relations.

Since 2012, the Department of Landscape Architecture and Planning has been publishing its scientific journal "Landscape Architecture and Art" https://lufb.llu.lv/Raksti/Landscape_Architecture_Art/, which is currently indexed by Scopus, Web of

Science™, Clarivate Analytics / Thomson Reuters /, AGRIS, CAB Abstract, Crossref, EBSCO Art & Architecture Source, EBSCO Discovery Service, EBSCO The Belt and Road Initiative Reference Source, Primo Central (ExLibris). The journal plays an important role in publishing the results of doctoral students' research, as "Landscape Architecture and Art" is the only scientific journal in Latvia in the field of landscape architecture and planning that simultaneously addresses both Latvian and foreign scientists, as it is international and indexed in several databases like SCOPUS and WEB of SCIENCE.

During the accreditation period, the doctoral thesis on actual issues of the landscape architecture field was elaborated (SAR, p. 270) related to 1) Quality of living space 2) Public participation and the right to a quality landscape for everyone 3) Rural landscape and cultural heritage – cultural and natural values in the landscape.

The study programme includes pedagogical practice, which is implemented within 4 semesters, with the doctoral student practising at the level of both the bachelor's and master's study programme.

In order to promote students' motivation for the implementation of their research and the development and defence of the doctoral thesis, the LLU has identified the need for support mechanisms, e.g. opportunity to apply for funding for research, as well as to ensure publicity in international conferences. Also, by 2020 to 2026, the university aims to create a new model for the development of doctoral study programmes in the fields of strategic specialization of the LLU, therefore in 2020 the LLU Doctoral School was established. Starting from 2021, a new support programme has been launched within the framework of this initiative, which allows doctoral students to apply for a grant for the performance of research within the framework of the project "LLU Transition to the New Model for Funding Doctoral Studies" (No. 8.2.2.0/20/I/001)

2.2. The study implementation methods fully contribute to the achievement of the aims and learning outcomes of the SP. The main approaches in the implementation of the SP, according to SAR, are:

- qualitative individual study plans and regular control of their implementation in accordance with the LLU doctoral regulations;
- involvement of local and foreign consultants within specific topics in the research development process;
- regular participation in international conferences;
- publications in internationally quotable editions;
- participation in international doctoral seminars and development of joint projects.

The evaluation methods are in accordance with best (international) practices, the evaluation of doctoral thesis takes place in accordance with the regulation of the Cabinet of Ministers No. 1001 "Procedure of and Criteria for Awarding Doctoral Scientific Degree" and LLU Regulations "On promotion boards and promotion" (https://www.llu.lv/sites/default/files/2020-05/LLU_promocijas_nolikuma_grozijumi.pdf - in Latvian) at the open meeting of the LLU Promotion Board in Arts, Music and Architecture Sciences after defending the doctoral thesis.

The approval for defense takes place at the closed meeting of the supervisory board. The decision to award or refuse the degree - Doctor of Science (Ph.D.) - is made by the board by a majority vote, open voting.

Similar to other SPs of SF, the student-centered learning and teaching principles are implemented. The doctoral students share with others well-established premises, e-environment, digital library, and international mobility available at LLU.

2.3. Considering the compactness of the SP, the necessary opinions on the study process and the necessary improvements is mainly gathered in individual dialogues with students and graduates and taken into account in the distribution of the content and structure of the programme. The opinions is taken into account in the improvement of the organisation of the study process and the content of the study programme.

The main issues that require attention are (SAR, p. 276):

- high level of research work and intensity in combining various activities;
- insufficient funding;
- private issues lead to pausing the studies;
- the motivation can be kept by external grants;
- a wide range of multifaceted applications of knowledge in different sectors.

SP acknowledges the abovementioned problems and searches for solutions in mitigating this issues, especially implementing several support programs for doctoral students (SAR, p. 276).

2.4. As explained in SAR (p. 277), in a doctoral study programme, international mobility takes place only within the framework of very intensive activities and their issues that prevents from taking part in outgoing mobility – students are actively working on research, as teaching staff or professionals in the field, many have families with children, as a result of which long absences are impossible.

Noting that, experts see that the possibilities for mobility are realised with help of the following activities:

- ERASMUS+ international mobility programme, LLU support programmes for the implementation of doctoral studies, other research and academic projects, within the framework of LLU VBF funding (conferences, doctoral workshops, etc.), doctoral workshops held at annual international conferences organised by the Council of European Schools of Landscape Architecture (ECLAS).

As a suggestion experts could advise encouraging and furnishing shorter mobility periods – lecturing, conferences, symposiums, research practice for brief periods of time, intense exchange periods.

Starting from 2021, a new Doctoral School support programme has been launched within the framework of this initiative, which allows doctoral students to apply for a grant for the performance of research within the framework of the project “LLU Transition to the New Model for Funding Doctoral Studies” (No. 8.2.2.0/20/I/001). Support will also include an opportunity for international mobility.

Incoming mobility of foreign students is observed only within the framework of intensive courses (SAR, p. 279). Just like doctoral students in the program, foreign students have the opportunity to devote one or two weeks to mobility, within the framework of which intensive training, consultations, and exchanges of experience take place.

Overall, the incoming and outgoing mobility, internationalization in general is an area that should be worked at by SP and department leadership in contact with the unit of international relations.

Conclusions by specifying the strengths and weaknesses

The content of the doctoral study programme "Landscape Architecture" implemented by LLU is mainly based on the up-to-date research findings and relevant to landscape research and landscape

architecture and planning. During the accreditation period, SP has fulfilled its main objective to prepare highly qualified scientific specialists in the field of Landscape Architecture in accordance with international standards. The thematic organisation of SP meets the needs of the relevant industry and the scientific trends. The study programme includes pedagogical practice with the doctoral student practising at the level of both the bachelor's and master's study programme. The study implementation methods generally contribute to the achievement of the aims and learning outcomes of the SP.

The evaluation methods are in accordance with accepted (international) practices, the evaluation of doctoral thesis takes place in accordance with the regulation Cabinet of Ministers. Considering the compactness of the SP, the necessary opinions on the study process and the necessary improvements is mainly gathered in individual dialogues with students and graduates and taken into account in improving the programme and mitigating the issues.

Weaknesses indicated mostly concern interdisciplinarity, practical aspiration, and international aspects of the research and mobility.

Strengths:

1. The content of the SP is based on the up-to-date research findings in the field of landscape research and landscape architecture and planning.
2. The research topics concern European guidelines dealing with landscapes, quality of the living environment, and environmental social justice.
3. The research topics are well integrated into the LLU scientific / strategic approach, and SP is fundamental in their implementation.
4. A qualitative student-centered approach is developed and is in use, including individual study plans, regular control of their implementation, regular consultation opportunities and individual interviews in order to improve SP and study process;
5. Composition of the SP motivates regular participation in conferences, writing publications in internationally quotable editions, participation in international doctoral seminars and development of joint projects.

Weaknesses:

1. The emphasis on the interdisciplinary projects within the SF, including the collaboration with other SPs within SF under evaluation, as well as with other SFs of LLU creating cross-disciplinary research setup should be developed; also cross-disciplinary connections with arts and other creative fields needs to be considered.
2. Topicality of the PhDs has a bold focus on Latvian landscape (more traditional issues) matters that is insufficiently outlined towards international cases, which are able to attract international attention to the SP;
3. The current PhD research modus (unlike this on master level) is insufficiently oriented towards applied research, what would greatly contribute to the integration of theory into practice;
4. No evidence found that SP may attract international students or the joint PhDs would be elaborated.

3. Resources and Provision of the Study Programme

Analysis

3.1. Overall the study provision, scientific support, informative provision, including libraries, material and technical provision, and financial provision comply with the aims, specifics and implementation conditions, and ensure achieving of study results of the Doctoral study programme "Landscape Architecture".

The visit of the facilities (Valdeka Methodological classroom, LLU Fundamental library), as well as

meetings with LLU management, faculty, SD and programme director all, indicate a well-established base and the possibility to ensure a high-quality study process also in the future with the constant development of study provision, emphasising development plans for outside labs and training fields (the development of Valdeka Castle study building as a Baltic-wide landscape architecture education and research center), permanent improvements of the IT infrastructure etc.

Information on doctoral programme is available on LLU website both in Latvian and English – admissions, funding, register of study courses, promotion documentation. Students use Moodle e-learning system.

Doctoral students use labs, computer classrooms of VBF, also the auditoriums and equipped workspaces of the Valdeka study building, both during and outside working hours (e.g. computer class has 25 high-performance workstations equipped with software for landscape research and analysis of data, and development of 3D models (ArcGIS Pro, Revit and others). Doctoral students can also use GIS Competence Centre (VBF building); and upon request students can also use labs from other LLU faculties.

The academic infrastructure in terms of library resources and available databases, search engines fully meets the needs of the SP. Access to library and online database resources is provided to the students during the whole period of studies and research. They can be used in LLU premises or distantly – scientific databases can be accessed using student access passwords. Library and methodological cabinet (it is very convenient that the books are close to the study place) are providing LA doctoral students with thematic literature on the subjects such as Ecology and environmental protection, History of architecture and garden art, cultural history; Landscape planning; Greenery; Outdoor building materials and elements, etc. (SAR, p. 157). Although students have access to the scientific journal “Landscape Architecture and Art” (issued by LLU), Experts suggest having more periodicals (for visual, graphical insight and analytical purposes) related to the field since that is the way to reach most actual information.

There are also databases with temporary access. The staff of the library provides consultations. Doctoral students have access to databases subscribed to by the LLU: CABI database, CAB Abstracts EBSCOhost; Taylor & Francis Group CRC Press e-books; EBSCOhost database; ScienceDirect journals; Web of Science; Scopus; Scival; Wiley Online Library; LETONIKA (SAR, p. 281).

Significant additions to the research and study literature have been implemented within the framework of various projects.

According to SAR (p. 283), the distribution of the total budget of the LLU is formed by the estimates of structural units / faculties, where costs are estimated by type of expenditure. In 2020, the share of costs of the Doctoral study programme “Landscape Architecture” consisted of: Remuneration - 71%, Scholarships - 7%, Goods and services - 19% incl. utilities - 8%, Fixed capital formation - 3%. From SAR – financial support has increased during the reporting period, but so have expenditures, the minimum wage rate and other economic indicators. Despite financial restraints, Experts have witnessed the improvements in developing study provisions – top management, SD and faculty leaders are determined to continue improving the study environment and providing necessary support.

The provision of the study process is also ensured through cooperation with other structural units of LLU: Fundamental Library, Bibliographic Information Department, LLU Communications and Marketing Center and Study Center, LLU Museum, to form an understanding of the cultural and historical values managed by the LLU, etc., also other universities.

Overall the financial base is sound and there are intentions to ensure continuous development of the Doctoral study programme “Landscape Architecture”.

LLU Moodle e-study platform helps to publish materials and video lectures for students, to conduct

online lectures and seminars, students are able to submit their work, and lecturers - publish the evaluation. More and more digital resources - e-study platform, accessibility, user experience - should be exploited.

3.2. The study provision and the scientific support are ensured. There is established cooperation with other institutions (SAR, p. 284): 1) in Latvia - organization of conferences, review of scientific publications, 2) cooperation with other LLU structural units for research work, 3) participation in thesis evaluation committees, 4) participation in doctoral and professor councils 5) cooperation between foreign universities and teaching staff (for instance Estonian University of Life Sciences).

As support for doctoral students and their research, students receive State scholarship, and since it is not sufficient, LLU has established two support programs for doctoral students to apply for grants (SAR, p. 284).

Conclusions by specifying the strengths and weaknesses

Overall the study provision, scientific support, informative provision, including libraries, material and technical provision, and financial provision comply with the aims, specifics and implementation conditions, and ensure achieving of study results of the Doctoral study programme "Landscape Architecture".

The visit of the facilities, as well as meetings with LLU management, faculty, SD and programme director all, indicate a well-established base and the possibility to ensure a high-quality study process also in the future with the steady development of study provision, and the development of Valdeka Castle study building as a Baltic-wide landscape architecture education and research center).

The academic infrastructure in terms of library resources and available databases, search engines fully meets the needs of the SP. Access to library and online database resources is provided to the students during the whole period of studies and research. They can be used in LLU premises or distantly.

LLU Moodle e-study platform helps to publish materials and video lectures for students, to conduct online lectures and seminars, students are able to submit their work, and lecturers - publish the evaluation.

Overall the financial base is sound and there are intentions to ensure continuous development of the Doctoral study programme "Landscape Architecture". Experts have witnessed significant improvements in developing study provisions - top management, SD and faculty leaders are determined to continue improving the study environment and providing necessary support.

Strengths:

1. Well-established base for study program implementation and definite goals for future development and further improvements.
2. Infrastructure of library (on-site and online), its resources and available databases.
3. Potential and established foundations for inter-institutional cooperation and potential for development.
4. LLU internal support system - scholarships for doctoral students.

Weaknesses:

1. Financial restraints in providing a sufficient financial base for doctoral students.
2. Insufficient state scholarship - doctoral students struggle to combine studies, research, and paid jobs.
3. Potential for acquiring or taking part in consortiums for international project funds, EU grants as opportunities for additional funding.

4. Teaching Staff

Analysis

4.1. There is a special emphasis on the doctoral programme in landscape architecture laid by the HEI, therefore several measures were undertaken in a target-oriented manner to avoid negative effects on the quality of the implementation of this Programme. The most important steps are (a) developing an independent doctoral council of the LLU in the Sub-field of Landscape Architecture, (b) attracting young researchers as teaching staff, (c) involving the teaching staff with doctoral degree into the study programs in landscape architecture on bachelor and master level, (d) inviting guest lecturers from foreign universities, (e) upgrading DP LA according to the requirements set forth in the regulatory enactments in the field of landscape architecture, urban planning and design.

According to SAR and information, obtained during the interviews with the students, alumni, and HEI administration, there have been significant changes in the composition of the involved academic staff since 2013, mainly related to doctoral degrees obtained by several teaching staff during the reference period and joining the programme implementation efforts. Since 2012, 4 new doctors have been attracted to the sub-field of landscape architecture, ensuring the succession of academic staff. This resulted in the ability to form an independent doctoral council of the LLU in the Sub-field of Landscape Architecture and a joint council of professors with the Riga Technical University, which ensured elections in the positions of professors and associate professors. Today 97% of teaching staff are elected academic staff, 4 – experts of the Latvian Council of Science in the field of landscape architecture (SAR, part III. Section 4.1, p. 261) This is a significant achievement in the development of landscape architecture education and the profession in general, which contributes to the quality of urban environment in Latvia.

After the aforementioned improvements have been made, the age profile of the teaching staff has been balanced and currently, 60% of the teaching staff involved in the programme are under the age of 45. Active and youthful teaching staff regularly transfer their knowledge to students, working with them in classes, in research and in the development of their final theses, as well as develop the research environment at LLU and cooperate in research with industry organizations and entrepreneurs.

According to SAR and the respondents, during the accreditation period, 4 guest lecturers from foreign universities were invited to ensure the inclusion of the latest industry insights and current issues in the doctoral study process, with one of them, Simon Bell, regular cooperation has been established. Although the tendency is positive, it can be evaluated as insufficient. There are no effective and diverse instruments enacted in order to diversify the scientific and practical international knowledge given to the SP students. Most international cooperation happens during summer schools and intensive training courses for doctoral students and teaching staff.

See DP LA, p.2. "The Content of Studies and Implementation Thereof"

4.2. 14 lecturers are involved in implementing the SP - 6 professors and leading researchers, 1 professor (Emeritus), 1 associate professor and leading researcher, 6 docents, 2 of whom are leading researchers and 3 researchers. 97% of teaching staff are elected, 4 – experts of the Latvian Council of Science in the field of landscape architecture (SAR, p. 286).

The qualification of the teaching staff members of SP complies with the requirements for the implementation of the SP and the requirements set forth in the regulatory enactments of the field of landscape architecture (SAR, p. 262). These are the knowledge of the state language, the English language skills, the number of persons with a doctoral degree involved in the implementation of the

SP (min 5). All requirements are fully fulfilled, but the number of persons with a doctoral degree (14) is nearly 3 times higher as required. The teaching staff regularly participates in activities that raise their academic and research qualifications. (SAR, part II. P. 4.2., p. 263). If the doctoral SP will be implemented in English, the SP director needs to make sure the composition of the teaching staff fulfills the requirements of the knowledge level of English.

4.3. There is the active participation of the academic staff in scientific publications in place. The publication records are recognised not only within SAR and during the interviews, but they are also well-known among professionals and academics in the field. The qualification and contribution of the teaching staff are also noticed by the industry, the state and local governments, presenting the teachers with numerous awards, letters of commendation and gratitude (see SAR, part II. P. 4.2., p. 263-264).

The number of publications during the assessed period is significant. The total number of publications of the 14 members of the teaching staff involved in the programme during the reporting period is 257, including 162 publications (or 11.6 per 1 teaching staff member) indexed in the Scopus and Web of Science databases. Explicit and inspirational analysis of the publication records is given in SAR, part III, section 4.3, pp. 264-268 and Appendix 5. Great achievement of the academic staff of the DSP is the foundation of peer-reviewed scientific journal "Landscape architecture and art", which largely contributes to the creation of national discourse on landscape architecture and forming the profession as a discipline.

4.4. The academic staff is involved in scientific research and/or artistic creation (in the fields related to the content of the study programme) both at the national and international levels. Special mention worth the involvement of the academic staff in research-related projects which contribute to the implementation of a high-quality doctoral study programme. The involvement of the academic staff of the programme in research is related to the priority directions identified in the development strategy of the LLU for 2015-2022. In the field of landscape architecture, it is the "Research and development of urban and rural landscape" with the aim to identify, preserve, develop and manage the value of the Latvian cultural landscape, including the urban and rural environment, as an essential component of national identity.

The thematic areas of the projects cover the topicalities and strategic initiatives of the sector described in Section 2.1, as well as the priority research directions defined and implemented in the LLU development strategy 2015-2022 and set by the Department of Landscape Architecture and Planning. The thematic areas of the projects implemented cover nearly the full range of the trends and scientific research in the field of landscape architecture, urban planning and design.

The involvement of the academic staff in the theory and practice of the LA discipline is well-known and recognised in Latvia and abroad. The full list of the research activities and projects can be found in the SAR, part II. section 4.4., p.p. 269-270 and section. 4.5., p.p. 271-275.

4.5. The analysis of SAR and the information gained in the interviews acknowledge that there is an effective mechanism for mutual collaboration between the teaching staff members in place, which largely contributes to the improvement of the study courses/ modules and their correlation. The most effective components of this mechanism are cooperation in research and in the management and consulting of doctoral thesis topics, the cooperation between the teaching staff and exchange of views within the format of the doctoral exams, and cooperation between the teaching staff of the programme also takes place within the framework of various study courses involving more than one teaching staff member of the programme.

Conclusions by specifying the strengths and weaknesses

The qualification of the teaching staff members of SP complies with the requirements for the implementation of the SP and the requirements set forth in the regulatory enactments of the field of landscape architecture. Because of special emphasis on the doctoral programme in Landscape architecture laid by LLU, the main improvements of the quality of teaching staff occurred on the level of doctoral studies, which have influenced positively the quality of teaching on other educational levels. The academic staff is involved in scientific research both at the national and international levels.

Strengths:

1. Due to effective policy on doctoral studies on the LLU management level and pro-active approach of the members of the SPs, the PhD students have successfully defended PhD thesis and joined the academic staff;
2. Succession of the professorship has been created, which ensured developing independent doctoral council of the LLU in the Sub-field of Landscape Architecture;
3. Following the LLU strategy, the generation profile has been balanced, involving teaching staff under the age of 45;
4. The qualification and contribution of the teaching staff is noticed by the industry, the state and local governments, presenting the teachers with numerous awards, letters of commendation and gratitude;
5. The involvement of the academic staff in research-related projects which contribute to the implementation of a good quality doctoral study programme;
7. The qualification of the staff members is mirrored in the sufficient number of publications, related to the actualities of the field of landscape architecture and planning. The special achievement of the academic staff is the foundation of the peer-reviewed scientific journal "Landscape architecture and art", which largely contributes to the creation of national discourse on landscape architecture and forming the profession as a discipline.

Weaknesses:

1. Average level of collaboration with staff members of other SPs of the SF "Architecture and Construction", aimed on developing a cross-disciplinary approach to research in landscape architecture and planning;
2. Average level of involvement of the recognized professionals from abroad, which are recognized in the field, to the scientific collaboration, due to the lack of joint PhDs, participation in the HEIs consortiums within international calls for projects.

5. Assessment of the Compliance of the Study Programme "Landscape Architecture"

Requirements

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

Assessment of compliance: Fully compliant

Compliance provided as an annex of the sample of the Diploma.

2. Documents confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued.

Assessment of compliance: Fully compliant

Provided agreement / compliance and Supplemental information to the Agreement between Latvia University of Life Sciences and Technologies and Riga Technical University that confirm that RTU shall undertake and provide learning opportunities in relevant programmes for students of LLU in case the implementation of the study programme is discontinued. The Agreement is applicable to the PhD programme Landscape Architecture.

- 3 3. Document confirming that the higher education institution/ college guarantees to the students a 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 higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" provided and confirms that if SP is discontinued and students do not wish to continue their studies at RTU, they are reimbursed their tuition fees.

- 4 4. 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

LLU confirmation was submitted as an annex.

- 5 5. 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.

Assessment of compliance: Fully compliant

LLU confirmation was submitted as an annex.

- 6 6. 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.

Assessment of compliance: Fully compliant

LLU confirmation submitted in the annex.

- 7 7. 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 Institutions of Higher Education.

Assessment of compliance: Fully compliant

LLU confirmation was submitted as an annex.

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

Assessment of compliance: Fully compliant

Compliance as an example of the Study agreement submitted.

- 9 9. 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 56.1, Paragraph two and Section 56.2, Paragraph two of the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

Compliance as a study course descriptions submitted.

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

Assessment of compliance: Not relevant

- 11 11. 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 Institutions of Higher Education.

Assessment of compliance: Fully compliant

Compliance submitted in the annex.

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

Assessment of compliance: Not relevant

- 13 13. The joint study programmes comply with the requirements prescribed in Section 551, Paragraphs one, two, and seven of the Law on Institutions of Higher Education (if applicable).

Assessment of compliance: Not relevant

- 14 14. Each member of the academic staff has either publications published in reviewed editions within the last six years, including international editions (if they have worked for a shorter period of time, the number of publications shall be in proportion to the work period), or artistic creation achievements (for instance, exhibitions, films, theatre performances, and concert activity), or a five-year practical work experience (except for the experience in the implementation of the study programme) in accordance with the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

The study programme complies with the requirements. The justification provided in Appendix No. 5 to SAR – document provides information about publications and experience of practical work (at least 5 years) of the members of the academic staff of the SF.

- 15 R5 - Overall rating

Assessment of compliance: Fully compliant

The study program shows compliance with all previous requirements.

Requirements (R6-R8)

- 1 R6 - The compliance of the study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision with the conditions for the implementation of the study programme and ensuring the achievement of the learning outcomes.

Assessment of compliance: Fully compliant

SP has necessary study provision, scientific support, informative provision (libraries, databases, online access on and off-site), material and technical provision, and financial base for successful implementation of the program. The studies are implemented having solid infrastructure like Valdeka castle study building, LLU Fundamental library, special equipment and software, rooms for student independent and collective work.

- 2 R7 - The compliance of the qualification of the academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments.

Assessment of compliance: Fully compliant

Overall the compliance of the qualification of the academic staff is ensured and complies with the provisions set out in the respective regulatory enactments. The LLU ensures attraction of qualified teaching staff, that is actively involved in the international and national academic and professional practice of landscape architecture.

- 3 R8 - The study programme leading to the master or doctoral degree is based on the advances and findings in the relevant field of science or artistic creation.

Assessment of compliance: Fully compliant

Doctoral study programme "Landscape Architecture" generally is based and implemented according to the industry needs and scientific findings, following the actual advances. SP creates preconditions for integrating students into the professional, academic, and artistic activities related to the field of landscape architecture and planning.

Conclusions by specifying the strengths and weaknesses

PhD study programme "Landscape Architecture" is a 3 years (120 credits) long full-time study programme implemented by LLU in Latvian. After successful defence of dissertation graduates are granted degree Doctor of Science (Ph.D.) in Arts, Music and Architecture. The name of the program, the degree to be acquired, learning outcomes and admission requirements are interrelated, are defined in the program's Regulations and procedures, available on e-learning platform, and included in study courses descriptions. The learning outcomes – knowledge, skills and competencies, – are aimed as interdisciplinary, they are achievable and formulated according to the program and degree.

Significant changes have been made in the composition of the academic staff related to doctoral degrees obtained by several members of the teaching staff, as result it was able to form an independent doctoral council of the LLU in the Sub-field of Landscape Architecture and a joint council of professors with the Riga Technical University, which ensures elections in the positions of professors and associate professors.

The research topics are based on the findings of the European Landscape Convention, which are aimed at identifying, preserving and passing on the specific nature of each country's landscapes, as well as everyone's right to a quality living environment and landscape around them. The research topics also comply with the vision of LLU, which emphasizes the sustainable use of natural resources to increase the quality of life of the society, as well as with Latvian Sustainable Development Strategy and other initiatives based on the introduction of the circular economy in Latvia (Latvian Bioeconomy Strategy, etc.).

There is active participation of the academic staff in scientific publications in place. The number of publications during the assessed period is significant. The total number of publications of the 14 members of the teaching staff involved in the programme during the reporting period is 257,

including 162 publications (or 11.6 per 1 teaching staff member) indexed in the Scopus and Web of Science databases.

The thematic areas of the projects cover the topicalities and strategic initiatives of the sector described in Section 2.1., as well as the priority research directions defined and implemented in the LLU development strategy 2015-2022 and set by the Department of Landscape Architecture and Planning. The thematic areas of the projects implemented cover nearly the full range of the trends and scientific research in the field of landscape architecture, urban planning and design.

The study provision and the scientific support, including the resources provided within the cooperation with other scientific institutions and institutions of higher education, comply with the requirements for the implementation of the doctoral study programme, create the prerequisites for the achievement of learning and research outcomes, and indicate the possibility to ensure a high-quality study process also in the future.

Doctoral students use labs, computer classrooms of VBF, also the auditoriums and equipped work spaces of the Valdeka study building, both during and outside working hours (e.g. computer class has 25 high-performance workstations equipped with software for landscape research and analysis of data, and development of 3D models (ArcGIS Pro, Revit and others). Doctoral students can also use GIS Competence Centre (VBF building); and upon request students can also use labs from other LLU faculties

After the aforementioned improvements have been made, the age profile of the teaching staff has been balanced and currently 60% of the teaching staff involved in the programme are under the age of 45.

The assessment of provided criteria proves formal compliance of the SP with the requirements prescribed in the Law on Institutions of Higher Education and other regulatory enactments receiving general evaluation as “fully compliant”.

There are no particular Strengths and Weaknesses indicated for this section respectively to the abovementioned criteria. An elaborate analysis is provided and particular worth to notice details are indicated in the textual part of the assessment.

Evaluation of the study programme "Landscape Architecture"

Evaluation of the study programme:

Good

6. Recommendations for the Study Programme "Landscape Architecture"

Short-term recommendations

Department director and SP director should explore the opportunities and consider the orientation of the PhD topics towards applied research.

SP director should ensure constant development of the quality of publications and dissemination of research results also to the wider public.

Establish and develop collaboration with staff members of other SPs of the SF “Architecture and Construction”, aimed at developing cross-disciplinary approach to research and field of landscape architecture and planning.

Long-term recommendations

In order to build international recognition, the department director and SP director should explore the opportunities and consider frequent and long-term involvement of internationally renowned field professionals, researchers and scientists in doctoral studies.

To consider diversification and replenishment of the financial support (in the form of salary) for the students (and researchers) by participating in the international transdisciplinary calls and HEIs consortiums. The international department should ensure and assist in SP participation in the collaborative programmes of the international funding institutions (grant applications).

Establishment of the English form of studies by considering implementing joint degree programme with foreign HEI should be explored.

To explore possibilities to develop post-doctoral studies.

II. "Civil Engineering" ASSESSMENT

II. "Civil Engineering" ASSESSMENT

1. Indicators Describing the Study Programme

Analysis

1.1. The doctoral study programme Civil Engineering provides a doctoral degree Doctor of Science (PhD) in Civil and Transport Engineering science, and no professional qualification is provided. There are full-time studies with a three years duration. During the meeting with staff and students, it has been concluded that the three years duration of study is too short. Comparing the doctoral program in Civil Engineering at the LLU and the doctoral programs at the universities of the Nordic countries, one of the differences is that the duration of doctoral studies at those universities is four years. This allows for a three-year research programme and the compilation of results and the presentation of the doctoral thesis – in the fourth year. Almost all students already work, and they are often unable to combine work with PhD studies obligations. The number of graduates per study year is equal to zero for most years during the reporting period.

The doctoral study programme "Civil Engineering" is designed as the final stage of the second cycle of education envisaged in the Bologna Declaration. The title of the doctoral study programme Civil Engineering reflects the construction industry's normative framework and multifaceted nature, which is included in the study programme plan in the form of study courses and topics. During the reporting period, the degree to be awarded has changed. After the successful defence of the doctoral thesis in the period until 2019, the applicant was awarded the degree of Doctor of Engineering (Dr.sc.ing.). Starting from January 1, 2020, the degree awarded is a Doctor of Science (Ph.D.) in the sub-discipline, which is determined by the Cabinet Regulation No. 49 of January 23, 2018, "Regulations on Latvian Science Disciplines and Sub-Disciplines". The changes are determined by the amendments of Cabinet Regulation No. 522 of January 23, 2018, and Cabinet Regulation No. 241 of April 28, 2020, to the Cabinet Regulation No. 101 "Procedures and Criteria for Awarding a Doctoral Degree (Promotion)", which provides for the changes in the title of the scientific degree to be awarded also in the already existing doctoral study programs. They are also determined by the classification of Latvian science disciplines and sub-disciplines approved in 2018 (Cabinet Regulation No. 49), which differs from the classification applicable in the previous period. Further, in accordance with the decision of March 13, 2020, of the Higher Education Quality Commission, applicants will be awarded a Doctor of Science (PhD) degree in Civil and Transport Engineering.

The admission rules of the programme were specified. They provided additional opportunities to

study in the PhD program "Civil Engineering" also for students of other related engineering areas, which correspond to the new initiatives aimed at interdisciplinary cooperation and research. Applicants for doctoral studies holding previous degree documents awarded by foreign universities are required for recognition of foreign qualification by the Academic Information Centre (AIC) of Latvia.

From SAR p. 307 it can be seen that the doctoral study program in Civil Engineering at LLU will also be implemented in English in the future. Thus, the admission rules of the programme include at least a B2 level of English language skills for foreign applicants. From the SAR and Appendix No. 1 significant decrease in the number of students is observed. Also, based on data in Appendix No. 1 it is visible that the number of graduates per study year is equal to zero for most of the years during the reporting period. In order to motivate doctoral students to continue their studies and defend their doctoral theses, LLU has been working on support programmes for doctoral students for the last two years. They allow devoting more time to their research and development of the doctoral thesis. For example, LLU programmes "Strengthening Scientific Capacity of LLU" and "Implementation of fundamental research at Latvia University of Life Sciences and Technologies" provide the opportunity to apply for funding for research, as well as to ensure publicity in international conferences.

In order to promote further involvement of doctoral students and scientific degree applicants in research and academic work at LLU, and at the same time increase the number of LLU academic staff with doctoral degrees and form succession in the scientific directions implemented at the university, in the framework of the project "Development of LLU Academic Staff" (No. 8.2.2.0/18/A/014), in the academic year of 2021, one doctoral student of the Civil Engineering doctoral programme was involved in the academic work. Starting from 2021, a new support program has been launched, which allows doctoral students to apply for a grant for research within the project "LLU transition to the new doctoral funding model" (No. 8.2.2.0/20/I/001). During the meeting on-site with staff and PhDs and based on SAR it was concluded that there is a lack of cooperation with other PhD study programs and the development of multidisciplinary study courses, cross-disciplinary collaboration between universities (faculties) to enable PhDs to do research together. The name of the doctoral study programme Civil Engineering, the degree to be acquired, the aims, objectives, learning outcomes, and admission requirements are interrelated, defined and included in study courses descriptions (Appendix No. 4).

Conclusions by specifying the strengths and weaknesses

The doctoral study programme Civil Engineering is implemented by LLU in the SF Architecture and Construction. Graduates are granted a degree Doctor of Science (PhD) in Civil and Transport Engineering science, and no professional qualification is provided. Admission requirements are clear, transparent and ensure the quality of the enrolled students. In general, aims, objectives, learning outcomes, and admission requirements of the doctoral study programme Civil Engineering are interrelated and comply with the SF Architecture and Construction. The study programme aims to develop the field of engineering at LLU within the Latvian higher education system framework so that the obtained scientific degree and diploma would be recognized both in Latvia and in other European countries.

Strengths:

1. Potential and preconditions for a doctoral study program in Civil Engineering at LLU implemented in English in the future;
2. Opportunity to apply for funding for research, as well as to ensure publicity in international

conferences;

3. Opportunity to promote further involvement of doctoral students and scientific degree applicants in research and academic work at LLU;
4. New support program which allows doctoral students to apply for a research grant.
5. Full cycle of education for Civil Engineering implemented by LLU.

Weaknesses:

1. The decrease in the number of students/number of dropouts;
2. The number of graduates per study year is equal to zero for most years during the reporting period.
3. Three years period of duration of the study program (too short);
4. Lack of multidisciplinary and joint collaboration between universities (faculties) within the study program.

2. The Content of Studies and Implementation Thereof

Analysis

2.1. Descriptions of study courses and the doctoral thesis are clear, available to PhD students and faculty, and comply with the provisions outlined in the regulatory enactments. The study content is relevant and complementary and it complies with the aims of the doctoral study programme "Civil Engineering", ensures achievement of general learning outcomes, meets the needs of the relevant industry and the scientific trends. It should be highlighted that study content is up-to-date and follows the current tendencies in civil engineering.

The topics of the PhD thesis reflect the current events in the field because they create an informative base for the critical evaluation and implementation of innovative solutions in construction: Sustainable civil engineering, development of new, innovative building materials, research of their properties. The topic of the doctoral thesis is defined by entering doctoral studies, assessing in each individual case its topicality in the field, as well as compliance with the research directions in the field of civil engineering marked in the LLU development strategy. According to SAR p. 318, the PhD programme Civil Engineering does not include practice. But it should be highlighted that all doctoral students work at the University, private or state companies. Often the chosen topic of the doctoral thesis is related to current problems during the work. In general, course outlines comply with the already defined aims of the doctoral study programme "Civil Engineering" and meet the needs of the relevant industries and scientific research. All doctoral students are in full-time employment relationships with companies, which proves that the study programme meets the needs and requirements of the market.

2.2. The study implementation methods, including the evaluation methods, contribute to the achievement of the aims and learning outcomes of the study courses and the doctoral study programme "Civil Engineering" how they are defined at this moment. Doctoral studies are organised in accordance with the Regulations of Doctoral Studies of the LLU. The programme is implemented in accordance with the LLU doctoral study programme implementation guidelines, approved in November 2017. The doctoral thesis is supervised and managed by the Vice-Rector for Science of the LLU, and the study process is organised by the University Study Center and the programme director in cooperation with the faculty management. The content of the programme and study courses is in close relation with actualities in the field of construction. The content of the study courses are regularly updated in accordance with the needs of the construction industry and the labour market, as well as the latest scientific innovations, technologies and development trends. From the SAR p. 312 and Appendix No. 4, can be seen that the special study courses of the research

direction are closely related to the topic of the dissertation and accordingly reflect the current problems in the construction sector, such as increasing energy efficiency, modelling the behaviour of structures, creation of innovative ecological materials, research and development of new technologies, etc. Compulsory study courses provide the necessary theoretical knowledge base and skills to use modern information technology in research planning and data analysis. Each doctoral student and lecturer has an LLU e-mail, doctoral students provide their assessment of the content of the study course and the lecturer's work at the end of each semester. After meeting with doctoral students and lecturers, it is evident that surveys for assessment of the content of study courses and lecturer's work are not obligatory, and lecturers are not motivated enough to further motivate students to complete surveys. The principles of student-centred education in the study programme are implemented: doctoral students' interests are respected both in the choice of the topic of the dissertation and in trying to adjust the schedule of contact hours on the days off. Doctoral students' competence is assessed on the basis of the order of the Ministry of Education and Science of the Republic of Latvia, in accordance with the ECTS standard adopted by the Republic of Latvia and in accordance with the LLU Study Regulations. The evaluation process of doctoral theses is well described and in accordance with the regulation of the Cabinet of Ministers No. 1001 "Procedure of and Criteria for Awarding Doctoral Scientific Degree" and LLU Regulations "On promotion boards and promotion". The doctoral students willingness to be independent is greatly promoted, at the same time providing guidance and support by supervisors. During the on-site visit, students have mentioned that they are aware of the procedures and principles of student-centred education. Also, the students and supervisors showed willingness for dissertation based on the published scientific papers, but there is a short period of duration of studies in which papers should be published in parallel with all the other obligations they have during the study. There is no motivating system developed for students to write a doctoral thesis in English.

There is potential and preconditions for a doctoral study program in Civil Engineering implemented in English in the future. Based on the meeting with students, supervisors and graduates it is evident that there is a need that teaching personnel should enhance their English skills at the minimum C1 knowledge level. The C1 knowledge level is needed for the level of PhD studies because it will be possible for students and teachers, according to European language levels, "to understand a wide range of more demanding, longer texts, and recognise implicit meaning in them, to be able to express herself fluently and spontaneously, to use language flexibly and effectively for social, academic and professional purposes, to produce clear and precise, well-structured, detailed text on complex subjects"

(<https://www.coe.int/en/web/common-european-framework-reference-languages/table-1-cefr-3.3-common-reference-levels-global-scale>). Experts consider that a high level of teaching personnel English skills and better visibility of study programme could attract more students.

2.3. The outcomes of the surveys conducted among doctoral students and graduates are used to improve the quality of studies. During the meeting with academic/teaching staff, it was concluded there are no surveys for lecturer's (academic staff) and supervisors, and they do not have the opportunity to provide their assessment of the content of the study course and the student's work at the end of each semester. Students and faculty confirmed that the surveys are regularly conducted and afterwards taken into consideration, and necessary adjustments are made. The results of surveys are evaluated by the director of the program by analysing the indicated drawbacks and later improving the content and quality of studies, but, due to the small number of students and very different interests, views, intelligence and experience of young researchers, it is not possible to get statistically representative results.

2.4. Long-term mobility has not taken place at the doctoral level, as all doctoral students are in full-time employment relationships with companies. According to SAR p. 321, doctoral students have the

opportunity to communicate with visiting professors from the University of Maribor, the Estonian University of Life Sciences, Riga Technical University, as well as in business discussions with professors from Vilnius Gediminas Technical University, University of Trás-os-Montes e Alto Douro UTAD, Wrocław University of Life Sciences, and Aleksandras Stulginskis University in Kaunas. Incoming mobility of doctoral students was not implemented during the reference period.

Conclusions by specifying the strengths and weaknesses

Descriptions of the study courses and doctoral thesis writing rules are developed and available to doctoral students, and comply with the provisions outlined in the regulatory enactments. The content of study courses is relevant and complementary. It complies with the aims of the doctoral study programme “Civil Engineering”, ensures the achievement of the general learning outcomes, and meets the needs of the relevant industry and the scientific trends. Mapping of the study courses for the achievement of the learning outcomes of the study programme is provided (Appendix No. 2), which enables us to see precisely how specific learning outcomes of individual courses are connected with learning outcomes of the study programme and how they contribute to their achievement. There is evidence of the implementation of student-centred learning and teaching (SAR pp. 315-318). Doctoral students and PhDs confirmed that the surveys are conducted and afterwards taken into consideration, and necessary adjustments are made. Only a few surveys are conducted every academic year because they are not obligatory and due to a small number of doctoral students. There is potential and preconditions for a doctoral study program in Civil Engineering implemented in English in the future, and teaching personnel should continue to enhance their English skills in the language courses delivered by the LLU Language Center. The visibility of doctoral studies should be improved and additional effort should be provided to attract foreign doctoral students.

Strengths:

1. Up-to-date curriculum of the doctoral study programme “Civil Engineering”;
2. Student-centred learning and teaching are broadly applied in study courses; doctoral students have the possibility to be involved in study process assessment;
3. The teaching personnel have an opportunity to regularly enhance their English skills in the language courses delivered by the LLU Language Center.

Weaknesses:

1. Lack of surveys for academic staff and supervisors to provide their assessment of the content of the study course and the students' work at the end of each semester;
2. Lack of mandatory surveys for all levels (students, staff, graduates, employers)
3. Low level of encouraging and motivating students to write a doctoral thesis in English and based on the published scientific papers.

3. Resources and Provision of the Study Programme

Analysis

3.1. The study provision, scientific support, informative provision (including libraries), material, and technical provision in LLU is well equipped (enough). In a SAR and on a site visit, Experts were provided with information and introduction to the resources of the study program, which consist of three main groups - equipment, software and literature.

There are several good (some of them newly) equipped laboratories, which are being involved in study and science processes of the study programme implementation: training laboratory for construction materials; building physics laboratory; research and training laboratories of structural

engineering; soil mechanics training laboratory; laboratory of pumps and the hydraulic modelling laboratory; water supply and sewerage laboratory; land surveying training laboratory and also GIS Competence Center (established within the framework of the Latvian-Lithuanian cross-border cooperation project). Special function for this study programme has acoustics laboratory, which is designed for testing the environment. This laboratory was exclusively welcomed by social partners of the Faculty, who paid special attention to these premises and would prefer to collaborate with the Faculty in order to test new materials.

The VBF has good enough computer equipment and software for all basic knowledge necessary to prepare civil engineers and is equipped with BIM support software. Several computer auditoriums (around 25 workplaces) are available for students; the classrooms are equipped with interactive displays and whiteboards. Based on the information received on the site visit, the equipment is accessible for the students after classwork.

However, it is highly recommended by Experts and almost all the interviewers (employees, teachers, students) to have the newest versions of Soft. It would be beneficial to integrate into the study programme courses enacting modern up-to-date soft (f.e. RFEM Dlubal, Tekla Structure, IDEA Static). There are always possibilities for development and improvement, for instance, software, and as a result more powerful computers for new softs.

LLU has a well-developed Fundamental library and premises, with good access to various databases and online accessibility, also from outside the campus, which is very valuable, especially during the pandemic period. Students have an opportunity to use the Faculty of Environment and Civil Engineering Information Centre with free access to the LLU Fundamental Library database (SAR p. 201) and have some spaces for individual work. Also, two computer classes with 49 are available for students (SAR p. 202) in the programme, which are accessible for them for after class work.

In addition, ample space of the Faculty has considerable potential to recruit the areas. Experts noticed underused premises of Building of Environment and civil engineering faculty and critical condition of some of them. The building requires update and renovation, in both – energy efficiency and decent outlook. In SAR SWOT analyse (p. 35), as a weakness is mentioned – the lack of territory for the establishment of outdoor laboratories to implement the study process and scientific activity of the study programme. However, there are plans and potential to develop them.

LLU has a well organised structure of revenues and expenditures of the general budget of the HEI, which, based on the information presented in (SAR p.326), is prepared in accordance with the Law on the State budget, passed annually by the Latvian Parliament and the Rector of LLU. The distribution also is being reviewed and approved by all necessary parties, which are collected into the Working group on Resource Use. Taking into consideration this fact, it can be stated that financial provision of this study programme complies with the features needed to implement it. However, the amount and level of state scholarships is absolutely not sufficient for effective and qualitative research work implementation and well-being for young scientists.

3.2. Based on SAR (p. 327-328) and after experts' site visit of the premises, it can be stated that the study provision and the scientific support complies with the requirements for the implementation of the doctoral study programme. PhD students can access the laboratories of the faculty, as well as the resources of other LLU faculties and laboratories are available and can be used to ensure the research.

The weak point is a poor selection of the partnering higher education institutions. This was also approved by PhD students who would prefer to collaborate with high-level universities abroad, which are strong in their particular area, unfortunately, they are not included in the list of collaborating foreign universities (<https://www.llu.lv/lv/erasmus-studejoso-mobilitate> – LLU partneraugstskolu saraksts).

Conclusions by specifying the strengths and weaknesses

Resources and provision of the Study Programme are well equipped (enough), with several good (some of them newly) laboratories, a well-developed Fundamental library and premises, and access to various databases and online accessibility. The faculty has good computer equipment and software for all basic knowledge necessary to prepare civil engineers. However, there are always possibilities for development and improvement, for instance, software, and as a result more powerful computers for new software. The Faculty's premises have considerable potential for development and need to be renovated to improve the energy efficiency and decent outlook.

Strengths:

1. Well developed technical infrastructure, equipment, digital technologies, which are suitable and good enough for the basic knowledge;
2. Well developed Fundamental library and premises, good access to various databases and online accessibility also from outside of the campus;
3. Facilities of the Faculty has considerable potential to recruit the areas;
4. Big potential of acoustics laboratory, designed for testing the environment.

Weaknesses:

1. The building requires update and renovation, in both – energy efficiency and decent outlook;
2. Poor selection of the partnering higher education institutions (high level);
3. The amount and level of state scholarships is absolutely not sufficient for effective and qualitative research work.

4. Teaching Staff

Analysis

4.1. Basing on SAR (p. 328) - there have been significant changes in the composition of the academic staff involved. The positive fact is that more high-level academic staff has been involved in the composition of the teaching staff and the study courses conducted. Those records show that the academic personnel are raising qualifications and being promoted to higher-level positions. Faculty also have made changes to the composition of the teaching staff in the reporting period, with regard to generation change.

Those changes (based on interviews and information from SAR (p. 330) have made a positive effect on the diversity of study course content and doctoral thesis topics. But unfortunately, the amount of doctoral students in the study programme remains very low.

Some teaching staff representatives are at the same time representatives from business companies. This is an excellent practice that helps the students and university receive the newest up-to-date material about the research, which is being implemented in the Faculty. This circumstance was discussed very positively on a site visit on the meeting with university staff and students

4.2. It's price-worthy that the university took into account the previous experts' recommendation to reduce the average age of the academic staff and has been starting to implement that. More academic staff members under the age of 45 have been attracted to the SF. This fact was approved by several parties on a site visit as well. According to the opinion of the students – they are happy with the level of qualification of the teachers, the level of English language (this was also noted on the site visit of experts), and especially students are appreciating that many of them are representatives from industry.

In addition, based on SAR's (p. 330) the qualification of the teaching staff involved in the programme

is regulated by the independent doctoral council of the LLU in the Sub-field of Civil and Transport Engineering. Three experts approved by the Latvian Council of Science in the field of civil and transport engineering participate in the implementation of the programme, who have also obtained a doctoral degree in this field, which meets the requirements of the Law on Higher Education Institutions for academic staff to implement the academic doctoral programme (SAR p. 331).

4.3. Through the evaluating period (2013-2020), the academic staff involved in the doctoral study programme implementation has published 188 bibliographical items. While those which are published in Scopus and ISI Web of Science databases are 1/3 of them (66 articles) (SAR p. 331). Considering that there are around 15 teaching staff annually included in the study process (SAR p. 328), during the reporting period less than one publication per academic staff was published, which does not contribute to the high-level implementation of the doctoral study programme.

4.4. To integrate the newest up-to-date information in the study process, it is crucial that academic staff actively implement scientific research, especially in the field, related to the content of the study programme. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals. However, not all of those projects are strictly in the content of the study programme. Some of them are participating in their own science initiatives. This is a favorable circumstance, but from another hand does not allow developing the recommence study processes. Moreover, proactive participation in international research projects is recommended. A more considerable initiative is needed from the Faculty management and the project management/development department to initiate the research project collaboration (on National and International levels). Additionally, more active involvement of students in science projects is highly recommended.

4.5. Based on SAR's information (p. 335) - the ratio between the number of students and the teaching staff of in the doctoral programme Civil Engineering, the ratio of the number of students and teaching staff in full-time studies is 5.2., which is good. There are several activities in the Faculty, which shows that the mutual collaboration between the teaching staff and partners outside the university is being implemented to promote cooperation and ensure interrelation between the study courses/modules (participating in scientific projects at a national level; development of laboratories; taking part in international professional and scientific organisations and working groups; etc. (SAR p. 333-334).

The cooperation on the improvements and new collaboration in research of the study programme is usually implemented in working groups and by the consulting doctoral students, or some seminars at the department are being organised.

Conclusions by specifying the strengths and weaknesses

The teaching staff, involved in the doctoral study programme Civil Engineering, comply with the prescribed requirements and relevant criteria, obligatory to implement this study programme. SP itself offers a good connection to practice opportunities. For example, a part of the teaching staff are representatives from business organisations, which brings added value to the quality of the study programme and helps students and the university to receive the newest up-to-date material. However, minor deficiencies, like the insufficient amount of scientific publications, produced by the academic staff of this study programme and amount of doctoral students, have been identified. These deficiencies, placed in the section "weaknesses", still need to be improved.

Strengths:

1. More high-level academic staff has been involved in the composition of the teaching staff and the

study courses conducted.

2. Faculty also have made changes to the composition of the teaching staff in the reporting period, with regard to generation change
3. Some lecturers who teach specialization study courses at LLU are at the same time representatives from business companies and are responsible certified specialists.
4. Faculty have made changes to the composition of the teaching staff in the reporting period, with regard to generation change
5. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals

Weaknesses:

1. The amount of doctoral students in the study programme remains very low;
2. Insufficient amount of scientific publications produced by the academic staff;
3. More considerable initiative is needed from the Faculty management and the project management/development department to initiate the research project collaboration.

5. Assessment of the Compliance of the Study Programme "Civil Engineering"

Requirements

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

Assessment of compliance: Fully compliant

The sample of the diploma is provided and complies with the procedure by which state-recognized documents of higher education are issued - in the section for annexes "Description of the Study Direction - Other mandatory attachments".

- 2 2. Documents confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued.

Assessment of compliance: Fully compliant

Provided compliance and AGREEMENT between LATVIA UNIVERSITY OF LIFE SCIENCES AND TECHNOLOGIES and RIGA TECHNICAL UNIVERSITY confirm that RTU shall undertake and provide learning opportunities in relevant programmes for students of LLU in case the implementation of the study programme is discontinued. The Agreement is applicable to the Doctoral study programme "Civil Engineering" contained in the fields of study Architecture and Construction. Provided in the section for annexes "Description of the Study Programme - Other mandatory attachments".

- 3 3. Document confirming that the higher education institution/ college guarantees to the students a 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 higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" provided and confirms that if SP is discontinued and students do not wish to continue their studies at RTU, they are reimbursed their tuition fees - provided in the

section for annexes "Description of the Study Programme - Other mandatory attachments".

- 4 4. 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

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" confirms (paragraph 7) that the Latvian language proficiency of the teaching staff involved in the implementation of SP complies 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 – provided in the section for annexes "Description of the Study Programme - Other mandatory attachments".

- 5 5. 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.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" confirms (paragraph 8) that all the teaching personnel participating in the delivery of the programme have a foreign language proficiency level of at least B2 according to the Common European Framework of Reference for Languages (CEFR). Provided in the section for annexes "Description of the Study Programme - Other mandatory attachments".

- 6 6. 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.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" confirms (paragraph 5) that at least five persons holding a doctoral degree participate in the delivery of the doctoral programme "Civil Engineering", of which at least three are experts in the field of Civil and Transport Engineering Sciences approved by the Latvian Council of Science (LZP) - provided in the section for annexes "Description of the Study Programme - Other mandatory attachments".

- 7 7. 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 Institutions of Higher Education.

Assessment of compliance: Fully compliant

LLU confirmation, issued in Jelgava, 28.07.2021 No. 2.4.-6.2/37 concerning the study direction "Architecture and Construction" confirms (paragraphs 5 and 6) that at least five persons holding a doctoral degree participate in the delivery of the doctoral programme "Civil Engineering", of which at least three are experts in the field of Civil and Transport Engineering Sciences approved by the Latvian Council of Science (LZP) and that the scientific and pedagogical qualifications of the academic personnel involved in the delivery of the doctoral programmes "Landscape Architecture" and "Civil Engineering", meet the criteria specified in the legal acts

regarding the evaluation of the scientific and pedagogical qualifications of a candidate for the professor and associate professor position. Provided in the section for annexes "Description of the Study Programme - Other mandatory attachments".

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

Assessment of compliance: Fully compliant

Study agreement provided in the appendix – provided in the section for annexes "Description of the Study Programme - Other mandatory attachments".

- 9 9. 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 56.1, Paragraph two and Section 56.2, Paragraph two of the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

Submitted descriptions - 4 appendix in the annexes section "III. Description of the Study Programme - 2. The Content of Studies and Implementation Thereof".

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

Assessment of compliance: Not relevant

- 11 11. 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 Institutions of Higher Education.

Assessment of compliance: Fully compliant

Decision No 1.10/35 from 05.05.2020. from Council of Higher education in Latvia to support the implementation of the academic doctoral programme Civil Engineering with less than 250 full-time students by Latvia University of Life Sciences and Technologies. Provided in the section for annexes "Description of the Study Programme - Other mandatory attachments".

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

Assessment of compliance: Not relevant

- 13 13. The joint study programmes comply with the requirements prescribed in Section 551, Paragraphs one, two, and seven of the Law on Institutions of Higher Education (if applicable).

Assessment of compliance: Not relevant

- 14 14. Each member of the academic staff has either publications published in reviewed editions within the last six years, including international editions (if they have worked for a shorter period of time, the number of publications shall be in proportion to the work period), or artistic creation achievements (for instance, exhibitions, films, theatre performances, and concert activity), or a five-year practical work experience (except for the experience in the implementation of the study programme) in accordance with the Law on Institutions of Higher Education.

Assessment of compliance: Fully compliant

SAR p. 330.-335., Appendix 5 to SAR, Requirement No. 14 is fulfilled.

However, the Experts analysis, section 4, and assessment in LLU show that the level and amount of scientific publications need to be improved.

15 R5 - Overall rating

Assessment of compliance: Fully compliant

Study program complies with all previous requirements.

Requirements (R6-R8)

- 1 R6 - The compliance of the study provision, scientific support (if applicable), informative provision (including libraries), material and technical provision, and financial provision with the conditions for the implementation of the study programme and ensuring the achievement of the learning outcomes.

Assessment of compliance: Fully compliant

LLU has all the necessary resources (technical, financial, informative) to be able to implement the doctoral study programme Civil Engineering to fulfil R6 criterion. Wider assessment is provided in the Expert's analysis (Section 3).

- 2 R7 - The compliance of the qualification of the academic staff members, visiting professors, visiting associate professors, visiting docents, visiting lecturers, and visiting assistants with the conditions for the implementation of the study programme and the provisions set out in the respective regulatory enactments.

Assessment of compliance: Fully compliant

The teaching staff, involved in the doctoral study programme Civil Engineering, comply with the prescribed requirements and relevant criteria, obligatory to implement this study programme. However, the level and amount of scientific publications needs to be improved. Assessment in the LLU and Experts analysis (Section 4).

- 3 R8 - The study programme leading to the master or doctoral degree is based on the advances and findings in the relevant field of science or artistic creation.

Assessment of compliance: Fully compliant

More explicit information is provided Experts' analysis, Section 2. Meetings with the programs' directors, students, alumni and field professionals, analysis of SAR provide evidence for the excellent fulfillment of the criteria R8.

Conclusions by specifying the strengths and weaknesses

The doctoral study programme Civil Engineering provides a doctoral degree Doctor of Science (PhD) in Civil and Transport Engineering science, and no professional qualification is provided. There are full-time studies with a three years duration. During the meeting with staff and students, it has been concluded that the three years duration of study is too short. Almost all students already work, and they are often unable to combine work with PhD studies obligations. The number of graduates per study year is equal to zero for most years during the reporting period. Admission requirements are clear, transparent and ensure the quality of the enrolled students. In general, aims, objectives, learning outcomes, and admission requirements of the doctoral study programme Civil Engineering are interrelated and comply with the SF Architecture and Construction. Descriptions of the study courses and doctoral thesis writing rules are developed and available to doctoral students, and

comply with the provisions outlined in the regulatory enactments. The content of study courses is relevant and complementary. It complies with the aims of the doctoral study programme “Civil Engineering”, ensures the achievement of the general learning outcomes, and meets the needs of the relevant industry and the scientific trends. Mapping of the study courses for the achievement of the learning outcomes of the study programme is provided, which enables us to see precisely how specific learning outcomes of individual courses are connected with learning outcomes of the study programme and how they contribute to their achievement. There is evidence of the implementation of student-centered learning and teaching. Doctoral students and PhDs confirmed that the surveys are conducted and afterward taken into consideration, and necessary adjustments are made. Only a few surveys are conducted every academic year because they are not obligatory and due to a small number of doctoral students. There is potential and preconditions for a doctoral study program in Civil Engineering implemented in English in the future, and teaching personnel should continue to enhance their English skills in the language courses delivered by the LLU Language Center. The visibility of doctoral studies should be improved and additional effort should be provided to attract foreign doctoral students.

Resources and provision of the Study Programme are well equipped (enough), with several good (some of them newly) laboratories, a well-developed Fundamental library and premises, and access to various databases and online accessibility. The faculty has good computer equipment and software for all basic knowledge necessary to prepare civil engineers. However, there are always possibilities for development and improvement, for instance, software, and as a result more powerful computers for new softs. The big space of the Faculty’s premises has considerable potential for development and needs to be renovated to improve the energy efficiency and decent outlook.

The teaching staff, involved in the doctoral study programme Civil Engineering, comply with the prescribed requirements and relevant criteria, obligatory to implement this study programme. There are also excellent practises in the Faculty. For example, a part of the teaching staff are representatives from business organisations, which brings added value to the quality of the study programme and helps students and the university to receive the newest up-to-date material. However, minor deficiencies, like insufficient amount of scientific publications, produced by the academic staff of this study programme and amount of doctoral students, have been identified. These deficiencies, placed in the section "weaknesses", still need to be improved.

Study program complies with all the key points, which facilitate the assessment of the compliance of the study program with the requirements prescribed in the Law on Institutions of Higher Education and other regulatory enactments. All required documents, justifications are submitted and evaluated as valid.

Whilst assessing the compliance of the study programme with the prescribed requirements, minor deficiencies have been identified.

Strengths:

1. Potential and preconditions for a doctoral study program in Civil Engineering at LLU implemented in English in the future;
2. Opportunity to apply for funding for research, as well as to ensure publicity in international conferences;
3. Opportunity to promote further involvement of doctoral students and scientific degree applicants in research and academic work at LLU;
4. New support program which allows doctoral students to apply for a research grant;
5. Full cycle of education for Civil Engineering implemented by LLU;
6. Up-to-date curriculum of the doctoral study programme “Civil Engineering”;
7. Student-centred learning and teaching are broadly applied in study courses; doctoral students have the possibility to be involved in study process assessment;

8. The teaching personnel have an opportunity to regularly enhance their English skills in the language courses delivered by the LLU Language Center;
9. New support program which allows doctoral students to apply for a research grants;
10. Well developed technical infrastructure, equipment, digital technologies, which are suitable and good enough for the basic knowledge;
11. Well developed Fundamental library and premises, good access to various databases and online accessibility also from outside of the campus;
12. Faculty premises has considerable potential to recruit the areas;
13. Big potential of acoustics laboratory, designed for testing the environment;
14. More high-level academic staff has been involved in the composition of the teaching staff and the study courses conducted;
15. Faculty also have made changes to the composition of the teaching staff in the reporting period, with regard to generation change;
16. Some lecturers who teach this specialization study courses at LLU are at the same time representatives from business companies and are responsible certified specialists;
17. Faculty have made changes to the composition of the teaching staff in the reporting period, with regard to generation change;
18. Some of the academic staff of this study programme is being involved in scientific research and regularly publishing the results of research work in scientific journals.

Weaknesses:

1. The decrease in the number of students/number of dropouts;
2. The number of graduates per study year is equal to zero for most years during the reporting period;
3. Three years period of duration of the study program (too short);
4. Lack of multidisciplinary and joint collaboration between universities (faculties) within the study program;
5. Lack of surveys for academic staff and supervisors to provide their assessment of the content of the study course and the students' work at the end of each semester;
6. Lack of mandatory surveys for students, staff, graduates, employers;
7. Low level of encouraging and motivating students to write a doctoral thesis in English and based on the published scientific papers;
8. The building requires update and renovation, in both – energy efficiency and decent outlook;
9. Poor selection of the partnering higher education institutions (high level);
10. The amount and level of state scholarships is absolutely not sufficient for effective and qualitative research work;
11. The amount of doctoral students in the study programme remains very low;
12. Insufficient amount of the scientific publications produced by the academic;
13. More considerable initiative is needed from the Faculty management and the project management/development department to initiate the research project collaboration.

Evaluation of the study programme "Civil Engineering"

Evaluation of the study programme:

Good

6. Recommendations for the Study Programme "Civil Engineering"

Short-term recommendations

LLU should introduce surveys for academic staff and supervisors to provide their assessment of the content of the study course and the students's work at the end of each semester for academic staff.
Surveys on feedback should be determined as obligatory for all involved parties of the study process – students, staff, graduates.
SP Director should introduce surveys as obligatory for employers (e.g. within the documents related to the implementation of traineeship).
More active involvement of students into the science projects is highly recommended.
More considerable initiative is needed from the Faculty management and the project management/development department to initiate the research project collaboration.

Long-term recommendations

To create a more efficient support system for decreasing the number of students dropouts, reduction of academic leaves, etc.
Define an action plan to increase the number of graduates per study year.
Encourage and motivate students to write a doctoral thesis in English and based on the published scientific papers.
Consider options of increasing the period duration of the study program from three to four years.
Establish multidisciplinary study and joint cross-disciplinary collaboration between universities (faculties) within the study program.
Evaluate the future development of underused premises of VBF faculty building – it requires update and renovation, in both – energy efficiency and contemporary outlook.
It can be very beneficial and highly recommended to have additional newest up-to-date versions of Softs (f.e. RFEM Dlubal, Tekla Structure, IDEA Static).
Proactive participation in international research projects is recommended. As well as the bigger initiative is needed from the Faculty management and the project management/development department in order to initiate the research project collaboration (on National and International level).
Keeping moving in the same direction regarding the changes of the composition of the teaching staff and the generation change is very commendable.
Faculty also have made changes to the composition of the teaching, with regard to generation change. Experts recommend to keep moving in the same direction.
Targeted international cooperation agreements with relevant HEI's – feedback from doctoral students may help to identify the potential interests – universities, science institutes, etc.

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 21 of the Law on Institutions of Higher Education, the higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study direction whilst implementing their internal quality assurance systems:		Partially compliant	<p>Overall LLU has developed Quality Management System with policy and procedures to ensure internal quality, uninterrupted development, and constant improvements of SF. The compliance is described in SAR, page 13. LLU has obtained an Investor in Excellence certificate issued in 2016. The Quality Assurance system is also available publicly online: https://www.llu.lv/sites/default/files/2020-08/Quality%20Assurance%20System.pdf. There are mechanisms for developing SPs, their internal approval and the supervision of activities, and periodic inspection. There is also a 6-year development plan worked out for SF.</p> <p>However, during the meetings and analysis, Experts notice and would like to point out two drawbacks: 1) lack of a system for awareness of initial signs of issues within the SF and such should be developed and 2) the feedback mechanism involving different stakeholders lacks significant impact due to the low number of respondents. The satisfaction of students with the SPs, the work effectiveness of academic staff, essential indicators of the activities of HEI must be compiled and analyzed based on extensive and sufficient data.</p> <p>Additionally, HEI management must be cautious in generally overcomplicated procedures, excessive bureaucracy, instead ensuring efficient and targeted, visible and easily perceptible operations from all involved parties and stakeholders.</p>
R2 - The cooperation with different organisations from Latvia and abroad implemented within the study direction ensures the achievement of the aims of the study direction.		Partially compliant	<p>LLU has established good connections with local associations and partners from industry, and has a big collaborative potential of motivated employees and graduates. But from another hand the level of mobility in the study programmes remains low, and has a poor selection of partnering institutions from abroad.</p>
R3 - Compliance of scientific research and artistic creation with the development level thereof (if applicable).		Partially compliant	<p>LLU has established the directions of scientific research in the SF complying with the development aims of the LLU, and they are relevant to the SF and the relevant industry. Scientific outcomes are integrated into study courses. LLU is encouraged to strengthen cooperation with other Latvian scientific institutions and look for collaboration opportunities in interdisciplinary research. There is a lack of dissertations in English, and there is a small number of high-quality publications.</p>
R4 - Elimination of the shortcomings and deficiencies identified during the previous assessment of the study direction, if it has been conducted, or the implementation of the provided recommendations.	Fully compliant		<p>Most of the recommendations are implemented or reduced (rejected) objectively.</p>

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	Civil Engineering (41582)	Fully compliant	Fully compliant	Fully compliant	Not relevant	Good
2	Land Management and Surveying (42581)	Fully compliant	Fully compliant	Fully compliant	Not relevant	Good
3	Civil Engineering (42582)	Fully compliant	Fully compliant	Fully compliant	Not relevant	Good
4	Landscape Architecture and Planning (43581)	Fully compliant	Fully compliant	Fully compliant	Not relevant	Good
5	Landscape Architecture and Planning (47581)	Fully compliant	Fully compliant	Fully compliant	Fully compliant	Good
6	Civil Engineering (47582)	Fully compliant	Fully compliant	Fully compliant	Fully compliant	Good
7	Landscape Architecture (51581)	Fully compliant	Fully compliant	Fully compliant	Fully compliant	Good
8	Civil Engineering (51582)	Fully compliant	Fully compliant	Fully compliant	Fully compliant	Good

The Dissenting Opinions of the Experts

After evaluation of SF and all respective SPs, it becomes clear that Civil engineering and Landscape architecture and planning / Landscape architecture study programs visibly differ in quality assessing the content and study quality, teaching staff, provisions, overall activities, mobility and internationalization, also, ambitions, energy devoted for development and publicly seen output. Logically it must be outlined also in the final mark/evaluation. However, all programs are evaluated as "Good."

Although programs of Landscape architecture and planning / Landscape architecture can not be evaluated as fully excellent according to the formal methodology, experts would like to indicate that by giving the grading "good" for all the Landscape architecture and planning / Landscape

architecture and Civil engineering programs it must be noted that it depicts programs in different quality. Landscape architecture and planning / Landscape architecture SP are significantly better established, show offer promising potential for further development, and show energetic and devoted engagement from the leadership of respective department and SPs, also teaching staff and students. It became evident through meetings in Jelgava, site visits, and thorough analysis of extensive documentation provided in SAR.