

# Expert group joint opinion

Evaluation Procedure: Assessment of Study Field

Higher Education Institution: Riga Building College

Study field: Architecture and Construction

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

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Riga Building College (RBC) demonstrates a well-established higher education system aligned with relevant legislation and strategic documentation. The procedures are well-established and implemented. The study field and the relevant study programmes cover the education of needed specialists in the construction branch of the country.

The Quality Assurance system of RBC relies on ISO 9001 Standard guidelines, and all regulations are available via the institutional web page or the Quality Management System online tool. The applicative research and design approach is led meritoriously, and results are developed as part of the study courses relevant to the market's needs. Students and professors are engaged in different projects and have a good connection with the industry.

RBC has established good cooperation with national and international institutions and companies within the framework of the study field, achieving the aims and learning outcomes of the study field and the relevant study programmes. Cooperation partners contribute to the study and internship areas and management of the study field and programmes. Internationalization is in place. RBC has developed a system and procedures for promoting mobility within the study field. Teaching staff and students participate in both outgoing and incoming mobility, which provides added value to the implementation of the study process and the quality of studies.

RBC has acknowledged previous recommendations and is implementing them to improve the study field and programmes.

Nevertheless, some deficiencies were identified, but many of them RBC has already been addressed, and improvements have started. Although the existence of the institutional mechanism, the HEI suffers from the well-established follow-up system. Instead, the process of data collection, processing, dissemination, preparation of action plans and re-analysis is not always efficient from the operative point of view. There is no institutional mechanism for acquiring feedback from study programme graduates. Nevertheless, there is an extensive collection of printed items in the library, availability of up-to-date digital information systems (databases, etc.) could be improved. Critical remarks should be addressed towards mobility opportunities of the students from study programmes "Civil Engineering and Construction" and "Engineering Systems"; also, as observed during the evaluation visit, not always English language skills of the staff members seemed sufficient. Thus, there still is space for development.

## **I - Assessment of the Study Field**

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#### **1.1 Management of the Study Field**

##### **Analysis**

1.1.1. The aim of study programmes (Architectural Technology, Civil Engineering and Construction and Engineering systems) in short-cycle professional higher education, according to the occupational standard, is to prepare students for practising a specific occupation. The aim and objectives of the field of study (Architecture and Construction) comply with the EU Guidelines for Qualifications in the European Education Area and the European Qualifications Framework (EQF) Level 5 (Regulations on the Classification of Latvian Education, Cabinet Regulation No. 322, July 13th, 2017). The aim of the study programmes is in line with the mission of RBC - to train theoretically knowledgeable and practically capable specialists for the private and public sectors, emphasising the specificity of Latvia as a member of the European Union.

The construction sector in Latvia has so far underutilised the opportunities offered by scientific

progress. Given the overall demographic trends, including the decline in the economically active population, the only way for the construction sector to survive is through the use of educated labour competent in the use of new technologies and materials. This applies both to recruits and the further training of the existing labour force. Technology includes not only practical skills but also the use of Building Information Modeling (BIM), which allows for more accurate planning and control of the work to be carried out. These measures generally result in improved quality and productivity and more efficient use of labour. Here, RBC has the opportunity to play a leading role in the training and further education of knowledgeable practitioners in the Latvian construction industry.

The study programmes integrate competencies in business, labour law, occupational health and safety, environmental and civil protection, as well as BIM, which are necessary for further education and development.

By following the primary learning outcomes of study programmes covered by this assessment procedure: Engineering Systems, Civil Engineering and Construction and Architectural Technology (HEI Annexes-Studiju programmas.doc) and inspection of the RBC strategic development goals (SAR Report, p.4-6), clear correspondence and interconnection between study programmes and study fields has been observed.

1.1.2. There are two primary documents relevant to distinguish this indicator:

1. The Development and Investment Strategy of Riga Building College for 2021 - 2027;
2. Appendix 2.1.2 Development plan for the field of study.pdf.

The SWOT analysis has been performed by the RBC and presented as a part of chapter 2.4. of the Development and Investment Strategy of Riga Building College for 2021 - 2027 (<https://rcklatvia.sharepoint.com/sites/RCK-KVS/RCKKVSdokumenti/Forms/AllItems.aspx?id=%2Fsites%2FRCK-KVS%2FRCKKVSdokumenti%2FStratēģijas%2FST1%20Development%20and%20Investment%20Strategy%20Ver%2E1%2E0%2Epdf&parent=%2Fsites%2FRCK-KVS%2FRCKKVSdokumenti%2FStratēģijas&p=true&ga=1> ).

The RBC has identified the main strengths. By inspecting the documents, the general feeling of strengths identified leads toward projections and assumptions rather than strengths. For instance, Erasmus+ offers students and graduates international study and internship experience. By recalling a number of realised ERASMUS grants (Appendix 2.5.3. Statistical data on the incoming and outgoing mobility of the teaching staff.pdf ), it is obviously less than 1% of enrolled students participate in the ERASMUS programme.

Furthermore, the data for lecturers and staff emphasise similar problems. Besides, E-learning in the MOODLE platform is far from being put into operation efficiently, as reported by the IT sector of the RBC during the on-site visit.

As can be seen in the SWOT analysis, there are several threats from the external environment to the field of study, which negatively affect its competitiveness, for example, the country's demographic and economic situation, a large offer of competitors in Latvia and abroad, and others. But taking into account the opportunities of the external environment and the strengths of the study field, there are several opportunities to increase the competitiveness of the RBC at the international level and promote sustainable development.

Taking into account the strategic goals of the RBC and the SWOT analysis, a study field development plan has been drawn up (Appendix: 2.1.2 Development plan for the field of study.pdf). The form of this appendix is not offered in the formal form; instead, its form suggests internal validity and use. By the inspection of the development plan, no clue on how to tackle demographic problems has been identified. However, the number of students enrolled in the study programmes has been reduced from 478 to 288 from academic 2016/17 up to today.

1.1.3. The main managing units of the study field Architecture and Construction (study field) are the

Study programme director, Study department, and International Relations department.

Directors of study programmes are responsible for ensuring that the content of the study programme is provided, updating the study course descriptions, teaching the relevant courses and preparing self-assessments for accreditation.

The Study Department organises the record-keeping of the study process and is responsible for keeping track of students' achievements and final documents. Provides internal information services to students, prepares orders, draws up lecture timetables and makes necessary changes, identifies and collects information from employers on the quality of the study programme and the need for new study programmes, prepares diplomas for the issue and monitors the circulation of diplomas.

International Relations Department organises the engagement of students and lecturers in various international projects (Erasmus+, Nord\_land: new insights, etc.), concludes cooperation agreements with foreign universities for students' studies and internships at partner universities and international companies, organises lecturers' lectures at foreign universities and experience exchange trips of the College staff to companies, universities and international professional exhibitions of building materials and construction products.

The marketing of the study field is the responsibility of the Public Relations Officer, and the public information function is performed by him/her.

Organisational structure exists and has been presented during the visit. The disbalance of the responsibilities taken by the responsible staff within the management structure has been present. The latter has been highlighted by different efforts of the study programme directors given during the panel members' on-site visit. This does not mean the management system of RBC is not efficient but gives a hint to the imbalance of the contribution of management board members to efficient and functional decision-making or the contribution equilibrium absence.

As reported during the assessment visit interviews by students and the academic staff, administrative and technical staff is implemented and efficient. This separately holds for the library, IT support and student support.

1.1.4. The RBC website provides information about the College activities, study programmes, admission criteria and qualifications. The qualifications are clearly specified and refer to the appropriate framework of qualifications for short-cycle professional higher education and are in line with the PQL and the LQF.

RBC also recognises non-formal education, regulated by the rules: "Recognition of competencies and prior learning acquired outside formal education or through professional experience". The rules define the learning outcomes achieved outside the formal education, the prior learning or professional experience at the RBC, and assess and determine their relevance to the study programmes pursued at the RBC. If they meet the relevant requirements of the study programmes pursued at the RBC, they are recognised, and the credits are awarded accordingly.

Application for studies at the RBC is governed by the "Admission Rules and Matriculation Procedure at Riga Building College for the Current Academic Year". This document proposes rules for application, competition procedure and requirements for the process, and applicants' admission rules.

Procedures for the recognition of competencies acquired outside formal education or in professional experience and study results achieved in the prior education were approved by the RBC council on January 15th 2020.

1.1.5. Methods, principles and procedures for assessing students' achievements with particular attention to learning outcomes are set by two main documents:

Regulations of the Studies of Riga Building College approved by the HEI Council meeting on April 25th 2022, and Regulations of the Admissions Committee of Riga Building College (April 5th 2022.).

The purpose of the documentation abovementioned is to set up procedures and criteria for student

evaluation, knowledge testing and assessment system.

The system of evaluation of the students' knowledge, skills and abilities complies with the requirements of the Cabinet of Ministers of the Republic of Latvia (Cabinet Regulations No 141 "Regulations on the State Standard of First Level Professional Higher Education" (20.03.2001). The organisation of studies and the procedure for conducting and marking examinations at the RBC are laid down in the "Regulations of the Studies of Riga Building College".

The study programmes are designed to encourage the active participation of the students in the learning process. This approach is reflected in the methods used to assess students. Assessors (docents) are familiar with testing and examination methods and receive support to develop their skills in this area. The assessment criteria and grading methods are made public. Assessment should show the extent to which the student has achieved the expected learning outcomes. Wherever possible, the assessment shall be carried out by more than one examination. The assessment follows approved procedures, is applied equally to all students and is consistent.

The Internal Regulations "Mutual Obligations and Rights of Riga Building College Lecturers and Students in the Study Process" define the criteria and binding procedures for evaluating students' achievements.

Students' achievements are regularly analysed at the RBC Council meeting, departmental meetings, joint meetings of the docents, Student Council meetings and management meetings. The effectiveness of student assessment procedures is established regularly.

Students' knowledge is assessed in all types of classes, project work, coursework, internships, lectures, exams and qualification works (diploma projects). The defence of the course projects takes place in public in the presence of the respective lecturers and course members.

Employers are involved in the defence, review and evaluation of the qualification work (diploma project and applied research): Representatives of the Union of Architects, the Union of Civil Engineers, construction companies and architects' offices, and university staff of the relevant field of study.

Insight into the content of Appendix 2.2.4. Surveys All.pdf and Appendix 2.2.2. Process indicators.pdf demonstrates successful implementation of the assessment methods and protocols as set by: <https://rcklatvia.sharepoint.com/sites/RCK-KVS/RCKKVSdokumenti/Forms/AllItems.aspx?id=%2Fsites%2FRCK%2DKVS%2FRCKKVSdokumenti%2FNolikumi%2FNL4%20Regulations%20of%20the%20Studies%20Ver%2E1%2E0%2Epdf&parent=%2Fsites%2FRCK%2DKVS%2FRCKKVSdokumenti%2FNolikumi&p=true&ga=1>.

1.1.6. In 2019, RBC signed an agreement with the University of Latvia to join a unified computer anti-plagiarism software covering 17 universities and two colleges. The software is a set of technical, methodological and organisational elements for checking the work of university students against a set of student work and other documents already present within the university database.

To ensure its implementation and effectiveness, a representative person of the University of Latvia, also the software coordinator, gave a specific orientated lecture to an audience of RBC students and lecturers on the topic "Academic (Dis-) Honesty".

The librarian in charge carries out plagiarism control and entry of works into the system. Access to the system is also granted to the Computer Network Administrator and the Deputy Director for Studies and Research of the College. The qualification works of the College students (diploma projects and applied research) are enrolled in the plagiarism control system. A work is considered plagiarism if even one form of plagiarism is detected and proven. The 2019 final papers have already been checked in this joint computer-based plagiarism control system.

The College has included the topic of intellectual property rights and protection in the courses "Legislation" and "Fundamentals of Law".

The obligation to provide references is also explained in the methodological regulations on formatting qualification works (diploma projects).

Academic integrity is addressed in two documents: "Code of Ethics of Riga Building College", <https://rcklatvia.sharepoint.com/sites/RCK-KVS/RCKKVSdokumenti/Forms/AllItems.aspx?id=%2Fsites%2FRCK%2DKVS%2FRCKKVSdokumenti%2FStrat%C4%93%C4%A3ijas%2FST2%20Regulations%20Code%20of%20Conduct%20Ver%2E1%2E0%2Epdf&parent=%2Fsites%2FRCK%2DKVS%2FRCKKVSdokumenti%2FStrat%C4%93%C4%A3ijas&p=true&ga=1>

and

"Regulations of Studies of Riga Building College". <https://rcklatvia.sharepoint.com/sites/RCK-KVS/RCKKVSdokumenti/Forms/AllItems.aspx?id=%2Fsites%2FRCK%2DKVS%2FRCKKVSdokumenti%2FNolikumi%2FNL4%20Regulations%20of%20the%20Studies%20Ver%2E1%2E0%2Epdf&parent=%2Fsites%2FRCK%2DKVS%2FRCKKVSdokumenti%2FNolikumi&p=true&ga=1>

Both documents are available on the College webpage. The Code of Ethics describes basic principles in Riga Building College regarding academic freedom, honesty, responsibility, loyalty and respect. The Code of Ethics is described in daily work, lecturing time, scientific work and students' responsibilities. All involved stakeholders oversee the enforcement of the Code of Ethics; however, any incidents are reviewed by the board of Ethics Committee members. The College administration is responsible for providing the Code of Ethics to all involved stakeholders, making it available, and informing them about the conditions.

Regulations of Studies of Riga Building College have a dedicated chapter to academic honesty, which also describes different types of academic honesty breaches, proper use of references, different types of plagiarism and their meaning, plagiarism control mechanisms in the study process, plagiarism in the academic field of work and consequences of not abiding the rules.

During the assessment visit, participants highlighted the general knowledge of the use of anti-plagiarism software.

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

RBC demonstrates a well-established higher education system in line with relevant legislation and strategic documentation. Internal procedures are well established and implemented as obtained from the regulation documents list available via the institutional web page. The regulation offers insight into the existence of strict regulations controlling different aspects of RBC activities. Management has successfully implemented academic integrity issues, grading procedures, and follow-up strictly addressed towards specific issues (academic staff, compliance of acquired knowledge to labour needs, general facts closely related to enrolled study program). Although the existence of the institutional mechanism, the HEI suffers from the well-established follow-up system. Instead, the process of data collection, processing, dissemination, preparation of action plans and re-analysis is not efficient from the operative point of view.

#### **Strengths:**

1. Students' admission procedures, as well as learning outcomes achievement assessment, are well developed and implemented into the internal documentation.
2. The study field and study programmes developed in accordance with the main directions of the strategic development, national and EU standards and legislation.
3. Well-developed and organised institutional regulations are setting up internal procedures and operations.

#### **Weaknesses:**

1. The role of all management board members is not clear. This is separately obtained from the fact not all management board members didn't participate in the panel visit giving a well-balanced contribution.

2. A drastic decrease in the number of enrolled students, following national demographic and economic situation, is not evidenced and presented as a priority threat to be considered.

## **1.2. Efficiency of the Internal Quality Assurance System**

### **Analysis**

1.2.1. RBC has established and implemented a QA system based on ISO9001 Standard guidelines. However, as written in a SAR report, the system has been initially implemented in 2012. (SAR, p. 7.). The main relevant improvement of the QA system is the ISO 9001 standard which emphasises the tendency of the RBC to operate under the most relevant standards.

The main aims of the RBC QA system are to: i) ensure the College operates in accordance with ESG and ISO 9001, ii) ensure high stakeholder satisfaction with the education implemented by the College and the quality of other services and iii) ensure that strategic objectives are fulfilled.

To ensure the achievement of the objectives, RBC has set up the goals: i) to maintain the quality management system of the College in accordance with the requirements of ISO 9001; ii) to ensure that programmes are designed and implemented in accordance with the requirements of sector-specific legislation; iii) to involve industry representatives in the design and evaluation of education programmes; iv) to ensure a high level of qualification of staff and v) to set realistic and measurable quality objectives each year and regularly monitor their achievement.

The College's Quality Management System (QMS) has been developed in accordance with the requirements of the internationally recognised and widely used ISO 9001 standard.

By inspection of the RBC web page, no QA-relevant info has been found. However, during the evaluation visit, it was concluded that the system is currently being renewed, and a recent staff exchange has occurred. Therefore, the RBC is in the process of updating process schemes and all the relevant information. The latter seems important because it includes various process schemes that could be crucial to educating academic staff and students on multiple procedures and about feedback mechanisms, complaints and suggestions, procedures on academic integrity breaks and other regular issues. As obtained from the site visit, a recently renewed QA system has been implemented and is shown to be efficient in ensuring strategic goals.

1.2.2. The internal audit of the study programmes is obtained by analysing the relevance of the acquired knowledge, skills and professional attitudes to the labour market requirements in the architecture and construction sector. Study programmes and study course programmes are regularly reviewed and discussed at departmental meetings, where decisions are taken on measures to improve and enhance the study process.

Quality assurance of the study process consists of the following:

1. Updating and supplementing of study courses - performed by teachers annually.
2. Checking students' achievement and academic debt control - four times a year.
3. Self-evaluation of the study programme - once a year, prepared and presented.
4. Indicators characterising the main activity process - analysis is performed annually. A summary of process indicators is provided in the annexe.

RBC used its own revenues to set up a working group to develop a professional standard "Architectural Technologist", inviting Elīna Rožulapa, Head of the Certification Centre of the Latvian Association of Architects, and the leading Latvian architects' offices to participate as experts: SIA "Vizuālās modelēšanas studija", SIA "MARK arhitekti", SIA "ARHIS Arhitekti" architects Uldis Balodis, Aleksejs Birjukovs, Raimonds Saulītis, Head of the RBC Department Inese Reitāle and Chairman of the Latvian Construction Industry Trade Union Ieva Gretere.

During the assessment visit, it was obtained that no formal institutional mechanism for acquiring feedback from study programme graduates exists, at least an efficient one. Neither meeting with employers/cooperation partners nor the meeting with graduates offered relevant clues on their

active role during the study programmes review process.

1.2.3. Students have the opportunity to express themselves freely. Students can submit their suggestions and complaints electronically in the e-environment (email) or by posting in the mailbox placed at the Study Department. Formally written submissions are responded to in written form in accordance with the requirements of the laws and regulations. Also, through an anonymous student survey, students are given the opportunity to express their opinions, make suggestions for improving the organisation of the study process, and evaluate lecturers.

SAR offered insight into 1-4 student complaints submitted per academic year, starting from academic 2017/18 up to date. The number of complaints increased with the launch of distance learning, but this is due to the initial uptake of new digital tools by both students and lecturers.

The procedure for submitting and reviewing complaints and appeals is stipulated in the Regulations "Procedure for Submitting and Reviewing Proposals and Complaints of Riga Building College Students", which was approved by the Principal of the RBC on November 11th, 2014. also available via the RBC web page (<https://www.rck.lv/en/higher-education/regulatory-documents/>).

During the assessment visit, student representatives who were also participating in the Students council and have been elected to the RBC council reported the college administration is very welcoming for regularly reported problems they run into. At the same time, students present for the meeting with students did not manage to recall any known submission of complaints by students within the last three years.

1.2.4. When collecting, storing and processing data of system members, RBC complies with the following data protection principles (SAR, p 26-27.):

1. collect and aggregate personal data only for specific, explicit and legitimate purposes and process them only in the manner and to the extent provided for by the laws and regulations;
2. collect, process and aggregate only the personal data that are necessary for specific purposes or to meet requirements under laws and regulations;
3. personal data allowing identification of the data subject shall be retained for no longer than necessary for the purposes for which the personal data were collected and processed;
4. after the expiry of the period for collecting or storing the personal data, the RBC shall destroy the data media, securing them against any possibility of data leakage;
5. take appropriate technical and organisational measures to ensure the protection of the personal data against unauthorised or unlawful processing, accidental loss, damage and destruction;
6. abstain from processing personal data without a specific purpose or transfer them to other organisations, institutions, individuals or foreign countries without secure, adequate protection and a lawful basis for processing.

The RBC processes personal data in compliance with confidentiality requirements and ensures the security of personal data held by the College. The RBC uses various security measures to prevent unauthorised access to, disclosure of, or other inappropriate processing of personal data. Employees with access to personal data are trained to handle it per the requirements set out in the regulatory enactments.

The Personal Data Protection Officer, appointed by the Director's order, oversees the protection and processing of personal data at the RBC and is responsible for informing and advising staff and students on data protection and ensuring compliance with the principles of personal data protection. The College has Internal Rules in place from 2020: "Privacy Policy of the Riga Building College" and Internal Rules "Regulations on Protection of Records Data of Riga Building College Students".

For the purpose of SAR preparation and development, several Appendices have been prepared and uploaded. Some of them, relevant to this criterion separately, are listed below:

1. Statistical data on students enrolled in the study programme "Architectural Technology".

3.1.4. AT Statistical data on students enrolled in the programme.pdf



## 2. Analysis of the results of surveys of students, graduates and employers

### 2.2.4. Surveys All.pdf

Following the content and the form of appended reports, no unique graphical identity has been recognised, thus leading towards individualism in data processing and appropriate report preparation. The procedure for conducting a student survey of RBC to evaluate the study process proposes and pre-assumes all relevant information for this specific QA mechanism.

1.2.5. Study programmes information given by the RBC can be easily found via the RBC official web page: <https://www.rck.lv/en/higher-education/study-programs/>. By following the link, the end user can approach both two main directions:

1. Study plan;
2. Professional standard.

All the above-reported info are available in the domestic and English language, so it can also be used for international students.

The internal organisation of the responsibility for the web page and other relevant platforms' content has been identified during the on-site visit but has been reported within the SAR p. 27. ICT specialists employed at the RBC are responsible for matching the web page technical input and E-platform content.

As evidenced during the site visit with the IT department representative and students, online setup (E-platform) has not been accepted by a significant percentage as a formal way of communication or education.

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

The QA system relies on ISO 9001 Standard guidelines and is regulated by numerous internal regulations describing the procedures of the internal QA system operation. All QA-relevant regulations are available either via the institutional web page or the Quality Management System online tool. The QA system efficiency is mainly tested during the on-site visit. It was obtained that no institutional mechanism for acquiring feedback from study programme graduates exists, at least an efficient one. Meeting with employers/ cooperation partners nor meeting with graduates did not offer relevant clues on their active role during the SP review process.

#### Strengths:

1. ISO 9001 standard implemented into the QA system.
2. Well-established and implemented regulations for study programme creation and review set up by the RBC relevant documentation and legislation.
3. QA mechanisms are well-defined and implemented into the HEI operation.

#### Weaknesses:

1. Weak coordination among study programmes leads to duplication of the separate study courses with the same contents but different codes.
2. Although institutional support as a kind of IT department has been enabled, E-platform has not been accepted by a significant percentage of the teaching staff.
3. Follow-up reporting has not been recognised as a well-efficient formal procedure. Not always the study feedback provided is anonymously. There exist too many informalities in the communication between the students and teachers and in the feedback process overall.

### **Assessment of the requirement [1]**

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

**Assessment of compliance:** Partially compliant

The requirement is evaluated as fully compliant based on the following sub-criteria evaluated as fulfilled - RBC ensures continuous improvement, development, and efficient performance of the study field whilst implementing its internal quality assurance system.

RBC has developed and successfully implemented QA documentation, including the necessary methods for developing and reviewing study programmes.

However there is some issues that are identified ( see analysis 1.2. and requirement point 1.2.)

- 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

QA and control policy and procedures are established – relevant documentation has been developed and implemented for different QA aspects.

All QA relevant regulations are available either via the institutional web page or the Quality Management System online tool:

<https://www.rck.lv/en/higher-education/regulatory-documents/>

<https://rcklatvia.sharepoint.com/sites/RCK-KVS>

Not always the study feedback provided is anonymously. There exist too many informalities in the communication between the students and teachers and in the feedback process overall.

- 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

Based on the information presented in SAR and the outcomes of the assessment visit, the methods for the creation and review of study programmes in the study field are outlined logically with suitable feedback mechanisms. No formal institutional mechanism for acquiring feedback from study programme graduates exists, at least an efficient one. Neither meeting with employers/cooperation partners nor the meeting with graduates offered relevant clues on their active role during the study programmes review process.

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

**Assessment of compliance:** Fully compliant

RBC Council has approved, on November 25, 2022, the Regulations of the Studies of Riga Building College, which lay down criteria, forms and terms for the assessment of students' knowledge, conditions regarding academic debts, and other requirements for achieving learning outcomes.

<https://rcklatvia.sharepoint.com/sites/RCK-KVS/RCKKVSdokumenti/Forms/AllItems.aspx?id=%2Fsites%2FRCK%2DKVS%2FRCKKVSdokumenti%2FNolikumi%2FNL4%20Regulations%20of%20the%20Studies%20Ver%2E1%2E0%2Epdf&parent=%2Fsites%2FRCK%2DKVS%2FRCKKVSdokumenti%2FNolikumi&p=true&ga=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:** Fully compliant

As highlighted within the SAR p.38.-39. - the performance-based system for academic staff is in place, which allows to evaluate quality of staff performance and motivates staff to improve their professional qualifications regularly and participate in research and international projects.

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

**Assessment of compliance:** Fully compliant

RBC performs data collecting and analysis on the study achievements of the students, satisfaction of students with the study programmes, and compliances of the study programmes, e.g. Appendix 2.2.4. Analysis of the results of surveys of students, graduates and employers. Statistical data on the incoming and outgoing mobility of students, Statistical data on the teaching staff and the students from abroad and Statistical data on the incoming and outgoing mobility of the teaching staff have been given in the form of Appendix 2.5.3.

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

**Assessment of compliance:** Fully compliant

RBC has developed and maintains a quality assurance system which contributes to realising the main goals and objectives of the particular study field and its respective study programmes. This is ensured via various activities, e.g. student surveys, involvement of external experts in the lectures, reassessment of the grading system, etc.

### **1.3. Resources and Provision of the Study Field**

#### **Analysis**

1.3.1. RBC uses both the state budget subsidy and its own income to ensure the study process (SAR, p. 27). RBC has established a system for determining and redistributing the financial resources required to implement the study field and the corresponding study programmes. The financial analysis is carried out annually by the RBC management meetings with the directors of study programmes and teaching staff to discuss the results achieved during the previous period and to prioritise the needs for the next phase (SAR, p. 28).

The implementation of international projects and the availability of funds also contribute to the improvement of the contents of the study programmes and the qualification of the staff members; it positively impacts the financial stability of RBC and ensures additional financial availability for activities (SAR, p. 28).

A system for funding scientific research is implemented, and it is effective. As observed during the evaluation visit, well-equipped laboratories and workshops provide opportunities for wide-range experiments and tests. RBC also continues to modernise the laboratory equipment in line with the up-to-date requirements (SAR, p. 31).

1.3.2. RBC regularly improves the availability and quality of material resources depending on the development priorities and labour market requirements (SAR, p. 33). An important means of improvement of the material and technical resources during the previous period was the contract signed with the Central Finance and Contracting Agency for the ERDF project "Modernisation of the laboratory for testing the properties of building materials" (project No 8.1.4.0/17/I/006). The project

aimed to improve the study environment of STEM programmes at RBC - to modernise the building materials laboratory by equipping it with modern equipment for testing building materials, inventory and computer hardware suitable for effective training of students in working with specific computer programmes used in construction - BIM technologies (SAR, p. 29).

As observed during the evaluation visit, the students and teaching staff have access to the RBC resources - inventory, equipment and teaching aids. Students and employees can use the equipment offered by the college also outside the college premises for a certain period (digital rangefinder, thermograph, etc.) by signing a contract with the person responsible for the equipment (SAR, p. 33).

Unified systems and procedures have been established to improve and purchase material, methodological and informative provisions that will secure the long-lasting workability of the equipment.

1.3.3. RBC has developed a system and procedures for regularly improving and purchasing methodological and informative provisions. As observed during the evaluation visit, RBC library resources and databases are available to students, staff members and other interested parties and meet the needs of the study field. The library was accredited in 2017 and has been granted the status of a library of local significance (SAR, p. 33). Information about library resources and the latest books is available on the RBC website. The library's collection has an average of 20000 items, including books, periodicals (about 500 items in architecture and design magazines) and students' qualification works (SAR, p. 33).

As it was clarified by the students during the evaluation visit, in almost all study courses, literature is available for use at home as well. The proportion of literature in English is increasing. Copying, printing, scanning, binding and laminating services are available in the library and methodological office (SAR, p. 32). RBC resources are available to both students and staff members even after the classes are over. A significant advantage for the students is the possibility to stay in the RBC premises 24/7 during the development of the final work (qualification work); permission is obtained from the director of the relevant study programme (SAR, p. 32).

1.3.4. As observed during the evaluation visit, RBC uses the Moodle platform in its learning process. Lecture materials, methodological materials, course programmes, assignments for independent work, surveys and tests are posted here. Lecturers post assignments on Moodle for students to complete and submit. Students can see their grades in Moodle (SAR, p. 36).

Microsoft Office 365 capabilities are also used. All lecturers and students have Office 365 accounts with personalised emails. Office 365 Outlook email is used for communication, Microsoft Teams platform for online lectures, OneDrive cloud storage for files, and survey forms (SAR, p. 36). As confirmed in the interviews during the evaluation visit, other Office 365 features are also widely used, such as Word, Excel, etc.

The epidemiological emergency has facilitated the use of various online platforms for distance learning. However, as observed during the evaluation visit, two parallel systems exist for using Moodle platform - teachers-based and study-course-based. Switching to a common study-course-based system should be considered.

1.3.5. RBC has defined, implemented and followed procedures for the study field and the corresponding study programmes for attracting teaching staff; they are publicly available (SAR, p. 36). The basis of the recruitment of the academic staff is the "Regulation on Academic and Administrative Positions of Riga Building College", where the number of the positions is determined in correspondence to the national requirements. Vacancies are advertised in the newspaper Latvijas Vēstnesis and on the RBC website. Requirements are stated by the specific needs of the study courses. Academic staff members are elected for six-year terms (SAR, p. 37).

There exist also a path in the event of a temporary vacancy - the RBC Council may recruit guest teachers for a period of up to two years. The academic staff involved in the study process are mostly professionals with extensive practical experience (SAR, p. 37).

As mentioned in the interviews during the evaluation visit, RBC aims to improve the recruitment of the academic staff in the coming years - to create a more transparent and high-quality recruitment system to select the most suitable candidates. However, not all the interviewed staff members were sure about the criteria for evaluating a person's suitability for the vacancy.

1.3.6. A performance-based remuneration system for staff has been introduced in RBC, allowing for evaluating the quality of performance and motivation of the staff members to improve their professional qualifications, participate in research and international projects, etc. (SAR, p. 37). Evaluation of the work of the faculty staff members and employees is held according to the criteria set out in the internal rules on remuneration: conducting applied research, participation in seminars, professional development courses, exchange trips, participation in international projects, creative work, publications, methodological work, advising incoming Erasmus+ students, organising study tours and workshops, participation in industry-related institutions. The teaching workload includes research work (SAR, p. 38).

A system of planning and support for further training and qualification upgrading of teaching and administrative staff needs to be developed and implemented to ensure that every RBC employee is engaged in professional qualification improvement in Latvia or abroad.

However, as it was observed during the assessment visit, not all staff members have adequate English language skills to be able to participate in the mobility programmes.

1.3.7. Overall, all the staff members have a part-time academic workload; three assistant professors have more than one academic workload. Six assistant professors - the Director of the RBC, the Deputy Director, the study programme directors and the International Relations Coordinator - have a full administrative workload. No research workload is reserved for the teaching staff members (SAR, p. 40).

The workload of the teaching staff is mostly somewhat balanced; however, as it was observed during the evaluation visit, not always the proportion between the various responsibilities of each of the staff members is clearly stated, which may cause an overload of the staff members.

1.3.8. RBC has identified the necessary support for different groups of students, and a functioning support system has been established. A curator and the Study Department support students in their studies, which helps both technically and psychologically. Support is also provided by the Deputy Director for Studies and Research and the Deputy Director for Education (SAR, p. 40).

The International Department provides all kinds of assistance for international students, and the Student Council is also there to help international students adapt to RBC and deal with practical matters. International students can stay in the hostel or get help in finding alternative living spaces.

The premises of RBC are adapted to the requirements of environmental accessibility: there is an elevator, wheelchair elevator and facilities for wheelchair users. A disabled parking space is available at RBC (SAR, p. 40).

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

Resources available for the study field and relevant study programmes provide a good space for obtaining good study results. They include study rooms, facilities, tools and equipment (for preparation, combination, integration and visualisation of study and research materials), information networks (Internet, intranet, Moodle), databases (library network, free access to databases (book resources database), materials (research materials, scientific publications, archives), services

(administrative, financial, IT and network support services, access to official statistics), computer applications and software (Standard Office, AutoCAD, Revit, online data visualisation tools and software, online communication tools) that allow fulfilling all the study courses of the programmes. However, as followed from the interviews with focus groups during the evaluation visit (teaching staff, students), more attention could be paid to the use of digital information sources - databases, e-platforms etc. that can provide more actual information than printed sources.

Since the graduates of the study programmes "Architectural Technology", "Civil Engineering and Construction", and "Engineering Systems" must be familiar with the use of different building materials and different building technologies, more extensive use of the EU structural funds and more intensive participation in mobility programmes (Erasmus+ etc.), especially for the study programmes "Civil Engineering and Construction" and "Engineering Systems" is recommended.

A system of planning and support for further training and qualification upgrading of teaching and administrative staff needs to be developed and implemented to ensure that by 2023 every employee is engaged in professional qualification improvement in Latvia or abroad.

#### Strengths:

1. The epidemiological emergency has facilitated the use of various online platforms for distance learning.
  2. A performance-based remuneration system for the staff members is in place.
- Library resources are available to students and staff members.

#### Weaknesses:

1. The workload of the teaching staff is mostly somewhat balanced; however, as it was observed during the evaluation visit, not always the proportion between the various responsibilities of each of the staff members is clearly stated, which may cause an overload of the staff members.
2. Not all staff members have adequate English language skills to be able to participate in the mobility programmes.
3. The availability of digital information sources - databases, e-platforms etc. that can provide more actual information than printed sources could be more comprehensive.
4. Not sufficient participation in the mobility programmes was observed, especially for the study programmes "Civil Engineering and Construction" and "Engineering Systems".

## **1.4. Scientific Research and Artistic Creation**

### **Analysis**

1.4.1. The RBC's applied research directions align with the College's development goals and are relevant to the study field and industry. According to the report (SAR, p.5), the study field of Architecture and Construction implements three study programs: Architectural Technology, Construction, and Engineering Systems, which are in high demand among specialists with specific knowledge and skills. Riga Building College is a professional higher education institution with 150 years of experience, consequently providing the construction sector with highly skilled professionals - the builders of a modern, people- and environment-friendly living environment. Considering that the mission of the College is to provide the Latvian economy with specialists who are necessary for the industry, who contribute to the competitiveness of the industry, and who are competitive both in the local labour market and abroad, the College prepares middle-level specialists with short cycle professional higher education in construction, architecture, engineering systems and restoration (SAR, p.7). Short-cycle professional higher education aims to deliver comprehensive knowledge and professional training in a particular field. Therefore, professional and applied research has been defined through the "Regulations on the procedure for the development of applied research at Riga Building College" and ensured through the curricular activities. The expert panel during the

interview in the assessment visit found out that most graduates can quickly enter the labour market, which indicates that the study field is coherent and relevant to the industry demand. The institution's mission has undoubtedly been fulfilled with the activities undergone up till now. At the same time, achieving the institution's vision requires much more engagement in the future modernisation and innovative approach of the programme. The interview revealed that some positive initiatives for modernisation and up-to-date skills were pointed out to be needed by the employees and the students, such as BIM thorough application. The recommendations are favourable, and the RBC has started its implementation; therefore, the expert panels encourage the further development of the initiated strategy.

1.4.2. The correlation between applied and artistic research/creation in Architecture and Construction as a study field has been defined and confirmed. The claim is that the study process is efficient through different plenaries, festivals, and projects, where students and lecturers receive appreciation (SAR, p.43), such as plenaries organised by architect Sergejs Ņikiforovs and supported by the Latvian Union of Architects; free art festival "White Page," the development of the project "Lielezere Park Improvement", etc. However, the RCB indicates the further need for greater cooperation between the municipalities and their associations; since they are assured of delivering the needed involvement for the idea and concept generation and its implementation when given the space and possibility of engagement. The above-mentioned and presented projects on the SAR demonstrate that these undertakings have been incorporated into the study programme courses. Such an engagement has been tailored during academic work.

1.4.3. International cooperation in applied and artistic research/creation within the Architecture and Construction study field and the relevant study program is reasonably ensured and developed through further cooperation based on bilateral agreements with the foreign institution or through Erasmus+ projects or strategic partnerships (creative plenary in Germany together with students and staff from the Balthasar Neumann Technical School in Trier; real-world learning project with VIA University College Denmark; Erasmus+ "Strategic Partnerships" project "Analysis and Comparison of European Design Codes and Chinese Code of Practice" etc.). However, the overarching goal of RBC to have an internationally renowned college of construction, architecture, and restoration (SAR, p.40) still needs to be precised. In contrast, only a specific ratio of staff and students benefits from internationalisation endeavours. The lack of adequate knowledge of the English language was evident in many cases during the interviews, which proves that participation in international settings is limited. Even though most of the graduates are prepared for the local market, the international shared experience is still precious.

1.4.4. The RBC is oriented toward applied research, and priority directions of research work are related to specific study courses (SAR, p.46). The teaching staff is engaged in the joint research of the students and the industry, and some with real-world learning projects (project "Lielezere Park Improvement", Erasmus+ "Strategic Partnerships" project AVEC-BNT and HiBiWood); they are well-functioning and efficient, whilst the scientific research is promoted through cooperation with higher education institutions of other countries bearing it does not have an extensive academic knowledge component but elements of research work that are gradually being introduced into the study process. However, referring to study programmes that require more use of BIM software and digital lab, the RBC should develop mechanisms for the involvement of the teaching staff in training and using them on applied research.

1.4.5. The RBC has developed mechanisms to promote the involvement of the students in applied research through the final thesis and different projects. Furthermore, the program students can present at conferences (SAR, p.41), plenaries (SAR, p.42), exhibitions (SAR, p.43), and competitions

(SAR, p.47). However, the expert panel encourages the promotion of the participation of the teaching staff in research which would be realised by strengthening the development of the study content with the solutions of research-relevant topics, consequently offering the possibility of students' involvement in these projects. Therefore, having the possibility of producing joint publications with students' contributions.

1.4.6. Some innovative solutions are integrated into the study process of RBC. By engaging in new ways, RBC is trying to improve teaching & learning approaches through its involvement with the industry, especially using digital tools, which can nurture and inspire new methods.

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

The applicative research and design approach is led meritoriously, and results are developed as part of the study courses and, as such, are relevant to the need of the market. As a result, both students and professors have a great possibility to be engaged in different projects and have a good connection with the industry. Internationalization is in place, but not as the RBC envisions in the future, and there is potential for improvement. There is also a need for a more significant usage of BIM software in conjunction with digital tools, which is the construction industry's future. However, it is respectable that the RBC itself has been aware of the issue, for it is anticipated that in a period of the following accreditation, they will address it accordingly.

Strengths:

1. Good possibilities for research activities of the teaching staff and students connected with the market.
2. Possibilities of involving students in research activities.

Weaknesses:

1. Motivation system for teaching staff modernization and up-to-date skills in research activities.
2. Digital laboratory (e.g., 3d printers, CNC machine, VR and AR tools, 3d scanners, etc.) to conduct a more thorough and concentrated work.
3. Not sufficient knowledge of the English language is a disadvantage when disseminating the research findings on the international level and obtaining up-to-date information.

### **Assessment of the requirement [2]**

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

**Assessment of compliance:** Fully compliant

The applied research and design approach is conducted effectively, and outcomes are developed and incorporated into the study content. However, there is a need for modernization and up-to-date skills, and RBC should find ways of endorsing greater immersion from the teaching staff.

## **1.5. Cooperation and Internationalisation**

### **Analysis**

1.5.1. RBC has established cooperation with national institutions and companies (Latvian Employers Confederation, Builders' Association, RTU Development Fund, Latvian Construction Industry Trade Union, Latvian Free Trade Union, State Building Control Office, Riga Municipality Agency, Latvian Architects' Union, Association of Restorers) within the framework of the study field. Such cooperation



contributes to achieving the aims and learning outcomes of the study field and the relevant study programmes. The cooperation partners are selected according to the study field's specific features and programmes with the priority to the companies that have developed stability, become sustainable participants in the business environment and are recognised by clients and employees (SAR, p. 47).

Internships are selected from competitive construction companies that are licensed, registered, free of tax arrears, with a high level of craft quality and have gained a reputation as reliable partners. The internship offers are published on the web platform [www.prakse.lv](http://www.prakse.lv).

As highlighted in the interviews during the evaluation visit, cooperation is primarily realised in the study process and the monitoring of study programmes. Industry representatives participate in the work of examination commissions and regularly provide recommendations for improving the study content. Cooperation with national companies is increasing. Innovative forms of collaboration with entrepreneurs arise by involving students in the work of companies founded by the graduates of RBC (SAR, p. 47).

Communication with the partners is held regularly, providing good relations with national higher education and research institutions within the framework of cooperation agreements. Cooperation is also set with institutions of secondary professional education to create interest among young people in the studies in RBC even before graduation from the school (SAR, p. 48).

1.5.2. RBC cooperates with institutions from abroad (Poland, Finland, Austria, Lithuania, etc.) within the framework of the study field (SAR, p. 51). Such cooperation contributes to achieving the aims and learning outcomes of the study field and the relevant study programmes. The cooperation partners are selected according to the specific features of the study field and study programmes - foreign universities with similar study programmes (SAR, p. 51). RBC also pays special attention if BIM, energy efficiency and green construction issues are integrated into the study programmes of partners. Preference to theoretical or practical classes related to new technologies and materials is given.

International cooperation is mainly carried out within the framework of various Erasmus+ projects (SAR, p. 52). RBC is also involved in implementing international projects related to advanced technologies and materials; for example, "Sustainable, High-Performance Building Solutions in Wood", the purpose of which is to conduct student training and develop a joint study course on the mentioned topic. The person responsible for international cooperation usually is the coordinator of the respective projects, for example, the programme director or RBC international relations coordinator.

However, as it was observed during the assessment visit, not sufficient English language skills of staff members may be a burden in widening international contacts and participation in joint projects.

1.5.3. RBC has developed a system and procedures for attracting teaching staff and students from abroad within the study field. Teaching staff and students participate in both outgoing and incoming mobility, which provides added value to the implementation of the study process and the quality of studies (SAR, p. 52).

Attracting international students and faculty staff is mainly done through Erasmus+ programmes. Attracting international students and staff primarily depends on the quality of outgoing teaching mobility and available funding. During recent years RBC has had 10 inbound student mobilities from Denmark, Turkey and Bosnia and Herzegovina. 22 students from RBC have gone on for studies, and 9 students have gone for internships (SAR, p. 53). Unfortunately, despite the RBC's existing financial resources, there was a drop in both inbound and outbound students in 2019, 2020 and 2021 due to the Covid-19 situation worldwide. While staff mobilities generally lasted 2-7 days and were easier to apply to Covid grace periods, the situation was incomparably more complex for student study mobilities, which start and end on specific dates, leaving a significant number of student mobilities

unfulfilled.

As stated in the report, in terms of staff, 63 teachers and 54 staff members travelled to the RBC to experience improved mobility (SAR, p. 53). 56 teachers from RBC went to partner universities for teaching mobility, and 55 staff members - to experience improved mobility.

However, as stated during the evaluation visit, the most active mobility users are students from the AT study programme. Students from other programmes complained of being too involved in the practical work, why participation in the study mobility they found being a problem. Maybe the College could consider better-developed internship mobility for those students involved in practical work.

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

RBC has established sufficient cooperation with national and international institutions and companies within the framework of the study field, achieving the aims and learning outcomes of the study field and the relevant study programmes. Cooperation partners contribute to the study and internship areas as well as to the management of the study field and programmes.

RBC has developed a system and procedures for promoting mobility within the study field. Teaching staff and students participate in both outgoing and incoming mobility, which provides added value to the implementation of the study process and the quality of studies. However, as stated during the evaluation visit, the most active mobility users are students from the AT study programme. Students from other programmes complained of being too involved in the practical work, why participation in the study mobility they found being a problem. Maybe the College could consider better-developed internship mobility for those students involved in practical work. Also, not sufficient English language skills of staff members were observed; it may be a burden in widening international contacts and participation in joint projects.

#### **Strengths:**

There are many mobility and cooperation partners both in Latvia and abroad to develop good relations between academia and industry.

#### **Weaknesses:**

1. Mostly students of the Architectural Technology programme participate in the mobility. Students from other programmes feel difficulties in participation in the mobility since they are involved in the practical work.
2. Not sufficient English language skills of staff members may be a burden in widening international contacts and participation in joint projects.

### **Assessment of the requirement [3]**

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

#### **Assessment of compliance:** Partially compliant

RBC has established a wide network of mobility and cooperation partners both in Latvia and abroad. The network covers partners from academia, professional bodies and associations and NGOs. This allows to development of good relations between academia and industry, aiming at empowering the study environment and increasing the study results. Nevertheless, priority should be given to increasing mobility within the students of the programmes "Civil Engineering and Construction" and "Engineering Systems", including internship mobility, as well as to improving the English language skills of the staff members.

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

### **Analysis**

#### **1.6.1.1. Accreditation:**

It is mentioned in SAR that the RBC started to implement recommendations immediately after receiving accreditation on April 10th, 2017; however, some recommendations have been only recently taken into consideration. It must be noted that the reason behind it is staff exchange (e.g. Facilities and Infrastructure Development director retired/was let go), therefore the people that now fill in these positions have fairly recently started working.

Previous recommendations for the study field:

1. During the previous evaluation, the RBC received a recommendation to reduce the number of subjects per semester. The RBC has improved this situation by merging similar study courses; however, the study course amount remains high in a semester due to having many short study courses (worth only 1KP/1.5ECTS). Implementation of this recommendation is partially fulfilled; however, it is recommended to ask students yearly whether it is necessary to split small study courses (worth 2KP/3ECTS) over two semesters or rather teach them at once in one semester.

2. During the assessment visit, there were inconclusive answers about resource optimisation by collaborating with other higher education institutions and sharing resources like offering Riga Technical university students to use the college's building materials properties testing laboratory. Of course, it is understandable that during the pandemic, such options were limited; therefore, RBC management explained that addressing this issue and implementation of this recommendation is in progress and thus is partially fulfilled.

3. Regarding recommendations for continuous development of language skills for administration and academic staff – it was noted that lecturers frequently participate in Erasmus+ mobilities and have occasional emails about possibilities to learn the English language. The administration fully supports academic staff's will to strengthen their language knowledge further; however, they should continue working on finding opportunities to regularly organise English language courses for the lecturers because it is a continuous process. The recommendation has been fulfilled.

4. Regarding library and old book replacement, journals, digital resources and collaboration with other universities, and revision of guidance material - all details are implemented, and this recommendation is fulfilled. It was noted during the assessment visit that students use library resources and that the resources are up to date, there were the newest editions of magazines and journals corresponding to the theme of the studies, and the RBC has access to several databases because of agreements between the National Library of Latvia, Riga Technical university, and others.

5. RBC has continued cooperation with various companies producing building materials and other companies important in this study field, providing regular excursions to these companies. Various graduates also noted that they gladly accept any offers from RBC at their current workplaces in construction. This recommendation is fully implemented and should be continued.

6. A new, modernised and visually appealing website has been designed with sufficient information in English and regulatory documents. This recommendation is fully implemented. However, it is advised to update the webpage with a renewed RBC quality assurance system with process schemes and other information once it is completed. Such information could be crucial for easier informing students and training staff members of different procedures (e.g., for feedback mechanisms/suggestions, various complaints and other types of problems).

7. As mentioned in the beginning, due to certain reasons, a new Facilities and Infrastructure Development director has recently been appointed. Regarding the last recommendation of the study field – to install coded locks to ensure free movement of students within the college – it is in process. The coded locks have been bought but are soon to be installed. This recommendation is expected to

be implemented soon.

Regarding the study programme “Civil Engineering and Construction”.

1. The RBC has changed the name of the study programme, and it is understandable for international experts. The recommendation is fulfilled.
2. During the assessment visit and interviews with graduates and students, it was determined that the study programme has increased focus on topics related to modern buildings, alternative energies, energy efficiency and ecological aspects. There are new study courses about BIM technologies, and the study programme overall focuses on skills required for construction manager and less on design skills; however, members of the graduates expressed the opinion that this is a step in the wrong direction. Members of the expert panel disagree with this statement, and this recommendation has been implemented successfully and is fulfilled.
3. Regarding the removal of the architectural section of the final project from the final drafts of the work and instead giving a ready-made good-quality architectural part of the project to develop execution and organisational parts – the college has disagreed with this recommendation and explains that this section of the final project is not developed during diploma design but during an internship and is used as a starting material for other sections. This recommendation is not fulfilled and should not be implemented.
4. During the assessment visit, it was concluded that not all academic staff regularly update course descriptions with current literature or up-to-date foreign language sources; however, they made sure to update it recently for evaluation. This recommendation is currently implemented. There should be stronger enforcement of regular study course description updating, and Study Programme Directors and Deputy Director for Studies and Research or Study Department should do it.

Regarding the study programme “Engineering Systems”.

1. Study programme content now provides increased focus on BIM technologies and construction legislation. This recommendation is implemented.
2. During the assessment visit, it was concluded that not all academic staff update course descriptions regularly and with current literature or up-to-date foreign language sources; however, they made sure to update it recently for evaluation. This recommendation is currently implemented. There should be stronger enforcement of regular study course description updating, and Study Programme Directors and Deputy Director for Studies and Research or Study Department should do it.

#### 1.6.1.2. Licensing of study programmes:

During the previous assessment procedures, a new study programme has been licenced, “Architectural Technologist”. The previous expert group recommended 8. activities, for example, concentrating on different study course merging and renaming, comparing the study programme to similar programmes abroad in Europe and coordinating study course planning so that it coordinated and deliver designed integrated tasks. There was also necessary to evaluate content relevance for certain study courses.

Recommendations regarding renaming and merging study courses have been implemented successfully; a study course was renamed to “BIM Fundamentals” by the start of the programme to cause less confusion between similar names, however, study course tasks prove that both study courses only fulfil each other. Study courses “Renovation and Reconstruction of Buildings” and “Renovation of the Architectural Spatial Environment” have been merged into one “, Renovation and Reconstruction of Buildings and Spatial Environment”.

The relevance of certain study courses like “Entrepreneurship”, “Fundamentals of Law”, “Legislation and Project Management”, “Fundamentals of Spatial Planning” etc. content is explained by providing basic knowledge important to the profession; however, the scope and topics of the study courses “Landscaping and Transport” and “Cultural Heritage Values and Technologies” have been narrowed down and integrated into a common study course called “Digital Modelling of Architecture”.

Study courses have been planned accordingly so that there is no repetition of topics. An analysis of similar college-level type programmes in Europe determines that the study courses and topics of study are similar, the time schedules vary between 3 and 4 years, Study course descriptions contain a reading list of literature appropriate to the course content. All recommendations have been fulfilled.

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

RBC has acknowledged previous recommendations and is implementing them to improve the study field and study programmes. There are some deficiencies (e.g. yet to be installed code locks), but RBC has addressed them and is still improving. These deficiencies are not that important to evaluate this section as partially compliant.

#### **Strengths:**

1. Renewed literature and various scientific sources online such as databases and standards; newest journals corresponding to the area of studies.
2. Modernised college web page with a sufficient amount of information in Latvian and English languages.
3. RBC organises various excursions to building material companies, giving students an insight into the industry in study time both in traineeships and in ordinary study courses.
4. Many lecturers are experts in their field and continue professional work outside of lecturing.
5. Many lecturers often use short Erasmus+ exchange opportunities, and the college gets guest lecturers from other countries from time to time.

#### **Weaknesses:**

1. Not all recommendations are fully implemented, but they are in process (e.g. code locks).
2. The amount of study courses has been reduced; however, there are still a lot of study courses in one semester being worth only 1KP (1.5 ECTS).
3. The RBC webpage still has the old RBC quality assurance system. When the renewed RBC quality assurance system with process schemes and other information is ready, the webpage should be updated.

### **Assessment of the requirement [4]**

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

#### **Assessment of compliance:** Fully compliant

RBC has acknowledged previous recommendations and are implementing them to improve the study field and study programmes. There are some deficiencies, but RBC has addressed them and are still improving. These deficiencies are not that important to evaluate this section as partially compliant.

### **1.7. Recommendations for the Study Field**

#### **Short-term recommendations**

Recommendation no. 7. (about code locks) for the study field from the previous evaluation period should be completed.

The position of the study field director should be considered for better coordination of study programmes and optimization of study courses as well as to avoid duplication of study courses with similar contents but different codes and names in different study programmes.
Follow-up procedures of the QA mechanisms should be planned, defined and put into operation. Reporting should be implemented as a part of follow-up procedures.
RBC management should urgently start the strategic planning of the solution to the enrolled student number decrease.
RBC should urgently provide opportunities for staff members to improve their English language skills to be able to participate in the mobility programmes and be involved in common projects with foreign partners.
The workload of the teaching staff should be revised to make the proportion between the various responsibilities of each of the staff members more clearly stated.
More active involvement of students in mobility from all the programmes, not only from the study programme Architectural Technology, should be promoted. Internship mobility could also be activated.

## Long-term recommendations

Implementation of a mechanism for how the study programme directors and study department motivate academic staff and ensure that they update their study course descriptions yearly and regularly with up-to-date literature should be considered.
Merging study courses with low amounts of CP, thus decreasing the number of study courses students have to take, should be considered to avoid fragmentation of the study programmes.
Empowering the need for mandatory use of Moodle and e-platform from the academic staff should be introduced. Motivations for teaching staff to promote wider usage of Moodle and e-platform should be introduced.
Moodle system should have an automatic feature to include study course descriptions in each study course automatically.
Wider availability of digital information sources - databases, e-platforms etc. that can provide more actual information than the printed sources should be considered.
Digital laboratories should be set up with more up-to-date equipment (e.g. 3d printers, CNC machines, VR and AR tools, 3d scanners, etc.) to conduct more thorough and concentrated work and align with the new industry requirements.
The applied research and design approach is conducted effectively; however, there is a need for modernization and updating of the research methodology and skills, and RBC should find ways of endorsing greater immersion from the teaching staff.

## II - "Architectural technology" ASSESSMENT

### II - "Architectural technology" ASSESSMENT

#### 2.1. Indicators Describing the Study Programme

## Analysis

2.1.1. The study programme "Architectural Technologies" (study programme) complies with the binding regulative provisions and legal documents, and its content is based on the basic principles and criteria of the Latvian Construction Sector Development Strategy 2017-2024 (Construction Sector Development Guidelines).

Representatives of all stakeholders (Riga Building College management, academic staff, employers, graduates and students) have participated in the development of the Riga Building College Development Strategy. They have contributed significantly to defining the vision and strategic approach.

The study programme was established taking into account the labour market demand and the development strategy of the Latvian construction industry (taking into account the developed professional standard ("Architectural Technologies" PS - the meeting of 14 August 2019, Minutes No. The aim and objectives of the study programme, as well as the study results obtained during the study, correspond to the professional qualification of the fifth level (Cabinet Regulations No. 322 "Regulations on the Classification of Latvian Education"), which is a short-cycle professional higher education.

Within the framework of the accreditation process of the study field "Architecture and Construction" during the pilot accreditation of the ESF project in 2017, the international evaluation commission drew the attention of RBC to the fact that the study programme "Architecture" according to the standard for the profession of architect's assistants exceeded the requirements of the Professional Qualification Level 4 requirements and encouraged the development of the professional standard of "Architectural Technologist" and change the name of the programme to "Architectural Technology".

2.1.2. Study programme (with educational classification code 41581) is planned to be given in 3 years (full time), covering 120 CP and leading towards Architectural Technologist qualification. The study programme has a large number of study courses (120 CP), and the distribution over the study years should not exceed 40 CP. Therefore, the optimal study duration is 3 years.

The study programme is aimed at young people motivated to study Architectural Technologies, as well as those working in architecture and construction branches in both private and public sectors in Latvia and abroad. The study field "Architecture and Construction" includes the study programme "Architectural Technologies" in Latvian, which corresponds to the study field: short-cycle vocational higher education study programme.

The content of the study programme corresponds to the national standard for vocational higher education (Cabinet Regulations No 141 "Regulations on the State Standard of First Level Professional Higher Education" (20.03.2001) and the study field. Objectives of the study programme and study outcomes provide for ensuring a set of knowledge, skills and competence in accordance with the description of knowledge, skills and competencies of the European Qualifications Framework (EQF) level.

2.1.3. Appendix 2.6.1. Evaluation of execution of the implementation plan.pdf offers an overview of the changes performed by the RBC management as referred to the assessment procedure. Besides the changes in the study programme title, reduction of the number of subjects per semester, etc., specific changes have been listed below.

In the study course "Management Psychology and Professional Communication", the programme is divided from semester 5 into semesters 4 and 5 for a more complete and in-depth study of professional communication.

In the "Freehand Sketching and Modelling" study course, the programme is combined in the 1st year of studies to initially develop and enhance students' skills and spatial thinking. The study course "History of Architecture, Historical Parts of Buildings" is renamed and divided into two separate

courses — "History of Architecture", taught by I. Tambaka, and "Renovation of Historical Buildings, Materials and Structures", led by I. Dirveiks. This course is scheduled for the 3rd semester so that students with already acquired knowledge have a deeper understanding of the renovation of historical buildings.

The study course "Digital Modelling of Architecture" combines three study courses — "Architectural Design and Digital Modelling", "Landscaping and Transport", and "Historical Values and Technologies", which include, combine and create a comprehensive knowledge of the given study courses in the field of digital modelling.

The study course "Renovation and Redevelopment of Buildings and Spatial Environment" combines the study courses "Renovation of Architectural and Spatial Environment" and "Renovation and Redevelopment of Buildings".

The practical training "Introduction to Building Information Modelling" has been renamed to "BIM Fundamentals", which is more descriptive of the nature of the practical training of study course. Also, in the practical training schedule, 1 CP is moved from semester 4 to semester 5 in order to ensure better development of the diploma project.

The list of the changes done as a result of the assessment procedure shows the suggestions are taken into consideration, analysed and implemented from the perspective of the RCB.

2.1.4. The beneficiaries of the study programme "Architectural Technology" are society as a whole, which should be provided with accessible quality higher education, including students, who will be provided with a quality study programme relevant to the labour market, and employers, who will be provided with a skilled workforce trained at the College that meets the needs of the labour market.

"The future development of the construction and architecture sector is predicted mainly by large companies (50%). Medium-sized companies (40.9% of cases) believe that the construction and architecture sector will grow, and the same proportion of companies believe it will remain at the same level. Small businesses (3.2%) and micro-businesses (1.4%) say that the construction and architecture sector is likely to develop rapidly, while 42% of micro-businesses say that the sector will develop, and only slightly more respondents (43.8% of small businesses and 43.4% of micro-businesses) say that the sector will remain at the same level (SAR p. 143.).

The Latvian Construction Sector Development Strategy 2017-2024 (Construction Sector Development Guidelines) states that skilled human resources are the cornerstone of the development, sustainability and competitiveness of both construction companies and the construction sector as a whole. The industry aims for highly skilled professionals in every construction occupation, from managers, architects and structural engineers to construction workers. In industry terms, a skilled worker is motivated and willing to be part of the construction industry, with a good theoretical knowledge base in line with global trends and the ability to apply theory in practice, with an understanding of their professional responsibilities.

The improvement, development and further advancement of the study programme "Architectural Technologies" is closely related to the directions of the NAP 2020-2027 development priorities "Competitiveness and material prosperity of entrepreneurs" and "Quality living environment and development of territories" (Latvian National Development Plan 2021-2027), and also fits into the long-term innovative and eco-efficient economic development perspective of the Latvian Sustainable Development Strategy 2030 (Latvia 2030 | Trans-departmental Coordination Centre).

Starting from the academic 2016/2017. when in total, 67 students have been enrolled; this number has been moderately changed up to date (SAR, p 5.). Based on the projections of the labour needs, the qualification arisen from this study programme will slightly increase (SAR, p. 13.).

2.1.5. Not applicable.

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



The labour market recognises the study programme as relevant and offers a vision of sustainability in the near future following the development projections of the architecture sector. The study programme is established taking into account the labour market demands and the development strategy of the Latvian construction industry and is aimed at young people motivated to study Architectural Technologies, as well as those working in architecture and construction branches in both private and public sectors in Latvia and abroad.

Strengths:

1. Real need for the study programme qualification exists and is evident;
2. Dynamic adjustment of the study programme is set up by following the suggestions of the assessment procedure.

Weaknesses:

none

## **2.2. The Content of Studies and Implementation Thereof**

### **Analysis**

2.2.1. The content of the study programme is topical and corresponds to the objectives of the study programme, ensures the achievement of learning outcomes, as well as meets the needs of the industry, labour market and research trends. As highlighted in the SAR, the objective and tasks of the study programme are in line with the EU and national standards and guidelines on qualifications (SAR, p. 148). The programme provides knowledge, skills and competencies corresponding to the requirements of the national professional standard "Architecture Technologist" (Annex 7).

As follows from the study course descriptions and the course map (Annex 8), the content of the study courses is interconnected and complementary. It is focused on achieving the overall goal of the study programme – to prepare well-educated and skilled professionals in the field of architecture and construction. The contents of it integrate competencies in business, labour law, occupational health and safety, and environmental and civil protection, which are necessary for further development. The topics of the study tasks in the study courses correspond to the outcomes defined by the study courses. However, the programme's overall structure may seem somewhat too fragmented; many courses of only 1 CP are included (Annex 8). The programme could reconsider the possibility of joining the "small" courses into larger units. Also, the distribution of contents of several courses through the study semesters could be reconsidered since there are courses whose content in one separate semester is expressed in fractions (Annex 9). Whole numbers would be advised instead, according to the recent amendments to the Law on Higher Education Institutions.

There exists a system for updating the study programme. It is carried out no less than once a year before the beginning of the current academic year. As follows from the interviews with the various focus groups during the evaluation visit (programme director, teaching staff, graduates and employers), the labour market needs, research trends and the development topicalities of the Latvian construction industry are taken into account as well as the recommendations of experts from the field.

2.2.2. Not applicable.

2.2.3. The study implementation methods contribute to achieving the aims and learning outcomes of the study programme and the study courses. The knowledge, skills and competencies required in each study course are assessed by various tests, following the principles of student-centred education. Evaluation of the study results is consistent, fair and appropriate for all students. The evaluation methods are objective and consistently followed. The scope of each test is consistent

with the content of the course programme and the skills and knowledge requirements set out in the national professional standard. All study courses included in the study programme are implemented following the course descriptions, which also define the evaluation system of the respective study course (Annex 10).

The implementation of the study programme is carried out using different study forms – formal and semi-formal education methods and approaches. Student-centred learning and teaching principles are considered. As follows from the interviews within various focus groups (programme director, teaching staff, students) during the evaluation visit, various methods of in-person studies – lectures, practical classes, individual and group work and discussions are used. Personal consultations also are available. The study tasks are problem-oriented, and students often participate in their development. The contents of the study tasks is related to situation analysis and case studies. Interactive study techniques and methods are used to promote analytical, critical, problem-based, systemic and creative thinking, development of group and teamwork techniques, presentation skills, etc.

Students receive feedback and guidance regarding the study results. However, as stated during the evaluation visit, common standards in providing and getting feedback are not observed. Both formal and informal means of communication are widely used, focusing more on those informal. Wider use of Moodle-based communication could be considered.

2.2.4. The internships are integral parts of the study programme. As follows from the interviews during the evaluation visit, they overall are organised following the objectives and tasks of the study programme and correspond to the requirements of the national professional standard. However, the expected outcomes could be better pointed out in the Internship Agreements (Annex 3.2.4.). Internships ensure the implementation of the study programme and the achievement of the study results, focusing on using digital technologies and software in the design and construction stages (SAR, p. 155). As observed in the interviews with the focus groups (programme director, students, employers) during the evaluation visit, the opportunities and provision of internships offered to students and work organisation are effective. The tasks of the internships are related to the learning outcomes achievable. There is a wide range of internship positions in the leading design companies in the country for students' choice - "ARHIS Arhitekti, Ltd", "MARK Arhitekti, Ltd", "Vizuālās modelēšanas studija, Ltd", etc.; however, as observed in the interviews during the evaluation visit, sometimes students feel difficulties in selecting them.

2.2.5. Not applicable.

2.2.6. The topics of students' final theses (qualification work or diploma project) are relevant to the field and correspond to the goal of the study programme. The topic of the qualification work (diploma project) is a small public building in relation to the BIM model. A construction design for a public building following the requirements of the national regulations and standards is developed. Compliance of the development progress of the qualification work (diploma project) is monitored by the programme director, the diploma project supervisor, and the relevant advisor.

There exists a system of confirmation of the topics of the qualification work (diploma project) and plagiarism detection. Only those diploma projects can be further examined by a reviewer where no plagiarism is detected.

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

The contents of the programme are well-balanced in accordance with the regulations and standards, the requirements are clearly stated, and the expected outcomes correspond to them. However, the programme's overall structure could be more solid; courses of only 1 CP could be joined into larger

units. Also, the distribution of contents of several courses through the study semesters could be reconsidered since there are courses whose content in one separate semester is expressed in fractions. Whole numbers would be advised instead. The internship's expected outcomes could be better pointed out in the Internship Agreements.

Strengths:

- 1.A desired study programme from the industry;
- 2.Well-balanced content in accordance with the regulations and standards;
- 3.Wide selection of internship positions.

Weaknesses:

- 1.Too fragmented study courses (only 1 CP) may lead to too broad and superficial study results.
- 2.The internship's expected outcomes could be better pointed out in the Internship Agreements.

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

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

**Assessment of compliance:** Not relevant

## **2.3. Resources and Provision of the Study Programme**

### **Analysis**

2.3.1. The study provision and the corresponding informative provision, including library resources, material and technical provision and financial provision, comply with the specific features and the conditions for the implementation of the study programme, create prerequisites for the achievement of the learning outcomes and indicate the possibility to ensure a high-quality study process (SAR, p. 161). As observed during the evaluation visit, the study provision, informative provision, including library resources, and material and technical provision, are available to students and staff members. However, as followed from the interviews with various focus groups during the evaluation visit (teaching staff, students), more attention could be paid to the use of digital information sources - databases, e-platforms etc. that can provide more actual information than printed sources.

Practical implementation of the study programme is supported by the computer system administrator, library staff, technical staff, workshop and laboratory managers and laboratory technicians. There is a methodological room where students can copy, print, bind, scan materials, and work on computers in the presence of a methodological class consultant (SAR, p. 160). The study programme uses various technical equipment (computers with licensed software, projectors, interactive whiteboards, etc.) and various teaching methods (group work, role plays, simulations, seminars, discussions, etc.).

As follows from the interviews with various focus groups during the evaluation visit, students and teachers use a free WiFi system throughout the RBC premises. Renovated fifth-floor lecture rooms have interactive whiteboards and up-to-date adjustable tables for group lectures and practical works. They are also used as work spaces for independent work after the study process.

2.3.2. Not applicable.

2.3.3. To ensure the study process, the RBC uses both the state budget grant, its own revenue, and foreign financial assistance, for example, the ERDF project "Modernisation of the Building Material

Properties Testing Laboratory” (SAR, p. 162, 163). The sources of financing for the study programme are the funds allocated by the state and the own revenue. Own revenue consists of tuition fees and other revenue (SAR, p. 163). Taking into account the variable number of paid students in the programme in each year of study (the changing situation of admission and budget places), it is not possible to determine the exact minimum number of students in the study programme in order to ensure its profitability. The study programme is cost-effective since the amount of the state budget grants granted each study year and the tuition fee cover the costs of one student.

As characterised by the RBC staff during the evaluation visit, dynamics of the number of students in the programme show decreasing tendency:

In the 2020/21 year, there were 38 students;

In the 2021/22 year, there are 31 students.

Partially, it was explained with the expectation of the applicants for the opening of the new study programme AT in the 2020/21 year. Thus, it is estimated that the number of students in the following years will increase.

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

Resources available to students, incl. study rooms, facilities, tools and equipment (for preparation, combination, integration and visualisation of study and research materials), information networks (Internet, intranet, Moodle), databases (library network, free access to databases (book resources database), materials (research materials, scientific publications, archives), services (administrative, financial, IT and network support services, access to official statistics), computer applications and software (Standard Office, AutoCAD, Revit, online data visualisation tools and software, online communication tools) allow to study all courses of the programme, as well as to carry out research at different stages, providing a flexible and student-centred environment. However, as followed from the interviews with focus groups during the evaluation visit (teaching staff, students), more attention could be paid to the use of digital information sources - databases, e-platforms etc. that can provide more actual information than printed sources.

The observations during the evaluation visit, together with the information provided by the RBC in the SAR, allow concluding that the available resources facilitate the development of the study programme.

Strengths:

- 1.The study provision and the corresponding informative provision, including library resources, material and technical provision and financial provision, comply with the specific features and conditions for the implementation of the study programme.
- 2.The laboratories and equipment provide opportunities for applied research work.

Weaknesses:

- 1.The availability of digital information sources - databases, e-platforms etc. that can provide more actual information than printed sources may seem somewhat insufficient.

### **Assessment of the requirement [6]**

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

**Assessment of compliance:** Fully compliant

Resources available to students and staff members allow to deliver all courses of the

programme, as well as to carry out research at different stages, providing a flexible and student-centred environment. The study programme uses well-equipped laboratories and various technical equipment - computers with licensed software, projectors, interactive whiteboards, etc. Good relations also have been developed between RBC and the construction industry that provides internship positions and participates in the development of the study programme. The library resources are extensive and available; however, more attention could be paid to the use of digital information sources - databases, e-platforms etc. that can provide more actual information than printed sources.

## **2.4. Teaching Staff**

### **Analysis**

2.4.1. The academic qualifications of the lecturers in the study programme "Architectural Technologist." comply with the requirements of laws and regulations in the field of higher education (the Higher Education Institutions Law), the specifics and implementation conditions of the study programme, as well as the Riga Building College Regulations on Academic and Administrative Positions (SAR, p.166). which supports accomplishing the goals and learning outcomes of the study programme and the relevant study courses. Of the 33 lecturers recruited during the last three years, 6 have PhDs and 23 with Master's degrees, and four field specialists with sufficient practical experience relevant to the subject. The performance indicator of the teaching staff is multidimensional, accordingly, with the proper weight on the well-defined area of evaluation.

2.4.2. The new programme "Architectural Technology" includes a 50% change in the composition of Lecturers; therefore, a better result for the implementation of the program has been achieved since the lecturers have a good command of the latest technologies used in lectures and practical works (SAR, p.167). The StP has purposefully taken actions so that alterations in the structure of the teaching staff assertively upgrade the quality of the study program's development and the study program's compliance with the requirements specified in regulatory enactments.

2.4.3. Not applicable.

2.4.4. Annex 2.3.7, which indicates the teaching staff CVs has listed the work experience of each academic staff member in the last six years, which showcases a satisfactory practical experience relevant to the subject being taught. Each teaching staff member complies with the Law on Higher Education Institutions and has five years of practical work experience. According to the SAR and the RCB management interview, the teaching staff works closely with the industry within the study field framework. In contrast, a portion of their workload besides academia includes practical professional experience.

2.4.5. A mechanism for the cooperation of the teaching staff in implementing the study program has been established. It ensures the achievement of the aims of the study program and the interconnection of study courses within the program. The RBC teaching staff consists of lecturers who regularly collaborate in developing study processes, thus achieving interdisciplinary coherence and continuity in developing students' knowledge and skills (SAR, p.170). Different kinds of undertakings of the study program safeguard the quality of studies with modern architectural developments. The lecture-student ratio is 1:2.3, thus ensuring an individual approach for each student (SAR, p.173).

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

The newly engaged teaching staff has a qualified background relevant to the courses taught. Their skills follow the most recent professional and academic development. Their academic performance is evaluated through continuous and systematic performance appraisals following the criteria laid down in the internal rules on remuneration. During the expert panel interview, it could be understood that the teaching staff is involved in tailoring the programme or institutional building, and a very effective system for the collaboration of the teaching staff in developing the study program has been proven. It guarantees the realization of the goals of the study program and the interconnection of study courses within the program. The teaching staff's performance is formal and well-defined.

Strengths:

1. Proper professional/practical qualification of the teaching staff for the taught courses;
2. The involvement of different resources for the improvement of the study programme;
3. Good command of the latest technologies used in lectures and practical works of the newly engaged teaching staff.

Weaknesses:

1. Too low outgoing academic mobility.

## **Assessment of the requirement [7]**

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

**Assessment of compliance:** Fully compliant

The teaching staff's professional /practical qualification for the taught courses is in compliance with the condition of the development of the study program. At the same time, the newly engaged teaching staff has a qualified background relevant to the courses taught. Their skills follow the most recent professional and academic development.

## **2.5. Assessment of the Compliance**

### **Requirements**

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

**Assessment of compliance:** Fully compliant

Study programme Architectural Technology (41581) complies with Professional Higher Education Standard (Cabinet of Ministers No. 141 "Regulations on the state standard of first-level professional higher education").

The study programme Architectural Technology volume is 120 CP, of which 20 CP are compulsory parts covering the overall educational field, 66 CP are for the compulsory elective part, 1 CP for the free elective part, 21 CP for traineeship and 12 CP for Qualification work. The study programme includes modules for the development of professional competencies in entrepreneurship - the courses "Economics, Entrepreneurship" (1CP), "Building Economics" (2CP), "Business Plan" (1CP) and "Psychology of business relationships" (2CP).

Compliance with the requirements of the Environmental Protection Law and the Civil Protection and Disaster Management Law: The compulsory part of the study programme includes the course "Ecology and Environmental Protection" (2CP)

The content of the compulsory civil protection course is included in the Civil Protection course (2CP)

There are modules that concentrate on the establishment of vocational competence and entrepreneurial activities. These skills are taught in study courses Entrepreneurship (1CT), Construction Economics (2CP), Legislation and project management (1CP) and Management psychology and professional communication within the organisation (2CP).

Compliance with the study programme with the State Education Standard is described in Annex No 6. ( 3\_2\_1\_AT\_Compliance\_with\_the\_State\_education\_standart.docx)

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

**Assessment of compliance:** Fully compliant

The study programme complies with a recently made valid professional standard PS-104 (approved 14.08.2019) and sufficiently provides the required knowledge for carrying out basic tasks for the profession (Annex No 7).

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

**Assessment of compliance:** Fully compliant

Study course descriptions and study materials are prepared in the Latvian language, and they satisfy requirements set in Law on Higher Education Institutions. However, RBC management must make sure that lecturers update study course descriptions with literature up to date regularly (at least once per year), not only when preparing for evaluation. College should focus more attention on unified formatting of study course descriptions (study course content (covered topics and hour amount)). See annex No. 10.

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

**Assessment of compliance:** Fully compliant

The diploma issued complies with the state legislation and "Procedures by which documents certifying higher Education recognised by the State shall be issued" (Cabinet of Ministers No. 202). See annex of the study programme: 3.2.1. AT Diploma  
See annex: 2.1.4. Study Agreements examples.pdf.

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Fully compliant

The academic staff has sufficient Latvian language knowledge for implementing study courses, see annex: 2.3.7. Latvian language proficiency.

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Fully compliant

Study agreements include all necessary parts set in legislation. See the annex: Study Agreements examples.

It is advised to include information about guarantees of compensation losses (11. and 12. criteria) so that this information is easier for the students to acknowledge already from the beginning.

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

**Assessment of compliance:** Fully compliant

The college has cooperation agreements with the University of Economics and Culture. In case the implementation of this study programme is terminated, students will be able to continue studies in UEC professional bachelor study programme "Interior Design". Students graduating in interior design acquire the qualification of Interior designer. See annex: 2.1.4. Cooperation Agreements.

However, it should be noted that the college should search for more first-level higher education study programmes and have other additional agreements that would fit better for Architectural Technology.

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



**Assessment of compliance:** Fully compliant

The college has directors order/letter to Academic Information Centre that confirms it will compensate losses to students if the study programme is not accredited or loses its licence and the student does not wish to continue studies in another study programme. See annex: 2.1.4. On compensation for damages. It is advised to include this information in the study agreement.

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Not relevant

**Assessment of the requirement [8]**

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

**Assessment of compliance:** Fully compliant

All regulatory requirements are met and fulfilled.

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

General conclusions on the fulfilment of the requirements corresponding to the study programme, indicating whether such deficiencies have been identified that cannot be eliminated during the 2-year accreditation period, providing a conclusion on the possibility of implementing the study programme in all declared implementation options (for example, full-time intramural form, part-time distance-learning etc.) in all applied implementation languages (for example, Latvian and English) and in all applied implementation places (especially applicable if the programme is implemented in branches). The most important weaknesses and strengths identified in the study programme.

**Strengths:**

A desired programme from the industry.

Well-balanced content in accordance with the regulations and standards.

Wide selection of internship positions.

Support from the industry partners.

**Weaknesses:**

Too fragmented study courses (only 1 CP) may lead to too broad and superficial study results.

The internship's expected outcomes could be better pointed out in the Internship Agreements.

Not always the study feedback provided is anonymously. There exist too many informalities in the communication between the students and teachers and in the feedback process overall.

The availability of digital information sources - databases, e-platforms etc. that can provide more actual information than printed sources may seem somewhat insufficient.

In case this study programme gets terminated, students have the possibility to study in a professional bachelor study programme, "Interior Design", which is not that closely related to Architectural Technology.

## Evaluation of the study programme "Architectural technology"

Evaluation of the study programme:

Good

### 2.6. Recommendations for the Study Programme "Architectural technology"

#### Short-term recommendations

Dealing with the decrease in the number of enrolled students is utmost. Strategic goals for the study programme should be planned, set and implemented.

The increase in the dropout rate in the reporting period should be analysed to detect possible problems and find appropriate solutions.

More systematic and frequent meetings among the academic staff and study programme director would be advised to create a better exchange of actual information and promote updating of the contents of the study courses on a regular basis.

Reduction of informalities in the communication between the students and teachers in the feedback process in general and broader usage and extended functionality of the Moodle information platform could be suggested.

The motivation of staff members to improve their English language skills to be able to participate in the mobility programmes and be involved in joint projects with foreign partners should be considered.

The internship's expected outcomes could be better pointed out in the Internship Agreements.

RBC should search for a wider range of suitable first-level higher education study programmes and initiate more agreements that fit Architectural Technology.

#### Long-term recommendations

Merging the "small" study courses (only 1 CP) into larger ones and reducing too fragmented parts of the courses in different semesters should be reconsidered. Fractions in CP in semesters should be avoided.

Wider availability of digital information sources - databases, e-platforms etc. that can provide more actual information than the printed sources could be considered.

Offering international studies to increase the number of students would be maintained.

A continuation plan to address the risk of academic staff ageing should be created. Attracting new professionals, especially graduates, both local and international, to the study process would be maintained.

Continuation of good cooperation with the architects' professional association would be maintained.

Continuation of good cooperation with other higher education and research institutions RTU, RISEBA would be maintained.

## II - "Civil Engineering and Construction" ASSESSMENT

## II - "Civil Engineering and Construction" ASSESSMENT

### 2.1. Indicators Describing the Study Programme

#### Analysis

2.1.1. The study programme has been implemented at RCB since 2000. The duration of study in this study programme is three years full-time, 120 credit points (CP), 180 ECTS. Graduates receive a short cycle diploma of professional higher education and obtain the fourth-level qualification "Building Site Supervisor" (Profession standard PS-161 of the Building Construction Manager, approved on August 11, 2021, <https://registri.visc.gov.lv/profizglitiba/dokumenti/standarti/2017/PS-161.pdf>).

Following the SP tasks and expected outcomes, as specified within the SAR p. 96-97, this SP fully complies with the SF mission and relevant strategic documents.

The purpose of the study programme is to prepare the building site supervisor of buildings professionally, who is able to ensure the quality performance of the construction works in conformity with the construction project, as well as complying with other regulatory enactments regulating construction and technologies for the use of construction products.

The content of studies is aligned with the objectives and achievable results and is based on the admission requirements for applicants- general secondary or secondary vocational education, taking into account the centralised examination assessment in the first foreign language and mathematics.

2.1.2. The purpose of the study programme is to prepare the building site supervisor of buildings professionally, who is able to ensure the quality performance of the construction works in conformity with the construction project, as well as complying with other regulatory enactments regulating construction and technologies for the use of construction products.

The organisation of studies at RBC is in accordance with the Law on Education, the Law on Higher Education Institutions and the Law on Professional Education.

The development and implementation of the study programme follow a logical sequence: the programme's aim and the tasks that follow it are formulated according to the requirements set out in the professional standard and the labour market demand.

The mission of the study programme is to prepare high-quality construction specialists for the Latvian construction industry, as well as to be a part of the education, research and construction industry of the European Union and other countries around the world.

The objectives and results of studies are mutually agreed upon and ensure that graduates of the programme will acquire a knowledge and critical understanding of the key concepts, theories and legal relationships of the construction industry, will be prepared for self-directed professional, innovative or research activities, be able to assess the impact of their activities on society and be motivated for personal and professional growth.

The Diploma Supplement corresponds to the model established by the European Commission, the Council of Europe and the United Nations Educational, Scientific and Cultural Organization (UNESCO/CEPES). The Diploma Supplement is drawn up to provide objective information and to ensure the academic and professional recognition of evidence of formal qualifications (e.g. diplomas, certificates).

2.1.3. Based on a recommendation from the accreditation experts of the previous course of study, the title of the study programme has been changed from Construction to Civil Engineering and Construction.

Since the previous accreditation submission in 2016, a new Study Plan has been prepared and will come into force after the accreditation. The content of all courses was reviewed and updated. The titles of several study courses were updated due to the development of study courses and current

developments in the construction industry (SAR, p. 98.-99).

The study programme Construction has been supplemented with the course: Ecology and Environmental Protection (2 CP) - in the 1st year, as well as new study courses included in the study programme related to the digitalisation of construction processes, industry development and innovation. In 2020, the RBC started using the e-learning environment Moodle, as well as other digital tools, in the study process. Study courses with reduced scope - Economics 2.5 CP, Economics, Entrepreneurship 2 CP - due to the fact that economics is studied in-depth in the secondary school course. The study course Urban Planning (1 CP) has been replaced by the study course Spatial Planning and Improvement (1 CP) (SAR, p.100.-101.).

Following the recommendation of the experts in the previous accreditation of the field of study to reduce the Architectural Design programmes for construction workers and to exclude the architectural design part from the final thesis projects - instead to give a ready-made good quality architectural part of the project to develop the work execution and work organisation parts, the Design internship (10 CP) has been removed from the study programme.

2.1.4. In recent years, the construction industry has changed its perception, both within the European Union and globally, as a result of the changes that have taken place. New requirements are set for environmental protection, energy efficiency, preservation of cultural heritage and its adaptation to the needs of modern society. The trend is moving towards a sustainable building development model that creates a quality living environment for current and future generations, resulting in an increased demand for highly skilled construction professionals.

Significant investment is needed in future teachers and internship places. There is a need to create a more substantial interest among young people in the construction sector. Young architects and structural engineers need to see a constantly evolving industry and a safe and motivating environment. A high level of labour protection and adequate social guarantees for employees is essential for the development of the sector (Latvian Construction Sector Development Strategy 2017 - 2024). RBC graduates are employed in the private sector, in state and local government institutions and have started their own businesses.

Regarding the number of students, within the period 2016 – 2021, in total, 1225 students have studied in the study programme Civil Engineering and Construction. Both the enrollment and the dropout rates have significantly changed during the reporting period.

Of the 1225 students, 383 (31%) have left their studies during the reporting period. The main reasons for leaving study are: failure - 308 cases, or 80.4%; inability to connect work with learning - 20 (5.2%); family conditions - 18 (4,7%); COVID-19 and remote studios - 15 (4%), other reasons - 22 (5,7%).

The total number of enrolled students has been reduced from 268 in 2016/2017. to 138 in 2020/2021. academic year (SAR, p.106.).

2.1.5. Not applicable.

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

Demand for the study programme has been identified but at the same time suffering from a drastic reduction in the number of students enrolled which is interpreted as a combination of reduced income, inability to work and study at the same time and partially by the COVID-19 pandemic. The study programme complies with the study field. It offers knowledge and learning outcomes adjusted to the market needs. The structure of the study programme, its tasks and expected outputs seem interconnected.

Strengths:

1. The study programme is recognised by the labour market.

Weaknesses:

1. Drastic dropout rate (from 2016 up to date, in total, 1225 students enrolled, only 200 students graduated);
2. Decrease in the number of enrolled students during the reporting period.

## **2.2. The Content of Studies and Implementation Thereof**

### **Analysis**

2.2.1. The content of the study programme is topical, corresponds to the objectives of the programme and ensures the achievement of learning outcomes, as well as meets the needs of the industry, labour market and research trends. In accordance with the decision of the Tripartite Sub-Council for Professional Education and Employment of 11.08.2021, a new professional standard for Building Construction Manager was adopted. The programme provides knowledge, skills and competencies corresponding to the requirements of it (Annex 6). As highlighted in the SAR, the general study courses provide knowledge appropriate for short-term professional higher education, raise the students' general education level, and provide knowledge and skills in communication and the social sphere. The compulsory courses of the study field are related to the profession and provide primary education in the speciality on which the specialisation courses are based. Optional courses provide the opportunity to study the intended specialisation in more depth. Theoretical studies consist of contact hours and independent studies (SAR, p. 108).

The content of the study courses is interconnected and complementary. The mapping of the study courses (Annex 8) shows that it is focused on achieving the overall goal of the study programme – to prepare well-educated and skilled professionals in the field of architecture and construction. The topics of the study tasks in the study courses correspond to the outcomes defined by the study courses. However, the overall structure of the programme may seem somewhat too fragmented; many courses of only 1 CP are included (Annex 9). The programme could reconsider the possibility of joining the "small" courses into larger units. Also, the distribution of contents of several courses through the study semesters could be reconsidered since there are courses whose content in one separate semester is expressed in fractions (Annex 9). Whole numbers would be advised instead, according to the recent amendments to the Law on Higher Education Institutions.

Separate courses, for example, Construction Legislation, following the description, are almost the same that is provided in the other study programme of the field, Engineering Systems, but with another code and a slightly different title (Annex All Study Courses). Courses like that could be joined to optimise the study resources.

There exists a system for updating the study programme. It is carried out no more than once a year before the beginning of the current academic year. As follows from the interviews with the focus groups during the evaluation visit (programme director, teaching staff, graduates and employers), the labour market needs, research trends and the development topicalities of the Latvian construction industry are taken into account as well as the recommendations of experts from the field.

2.2.2. Not applicable.

2.2.3. The study implementation methods - classical training methods such as lectures, seminars, practical classes, and laboratory work, as well as student-centred learning and teaching principles - individual and group work, independent work, and distance learning methods are used to contribute to achieving the aims and learning outcomes of the programme and the study courses. Both classical and up-to-date training methods – lectures, seminars, practical classes, laboratory work,

individual and group work, independent work, and distance learning are used. Various means of communication between teachers and students and within the students - email, WhatsApp, Telegram, Skype, Dropbox, Zoom, MS Teams, etc., including in the RBC e-environment on the Moodle platform are used (SAR, p. 113). The evaluation methods are objective and consistently followed. Each study course has a course description, defined objectives, and teaching methods and tools for acquiring specific knowledge, skills and competencies (SAR, p. 114). However, as stated during the evaluation visit, common standards in providing and getting feedback are not observed. Both formal and informal means of communication are widely used. More consequent use of Moodle-based communication could be considered.

2.2.4. The internships are an integral part of the study programme. They are organised following the objectives and tasks of the study programme and correspond to the requirements of the national professional standard. Several internships are included in the study programme - Introduction to construction processes on site, Laboratory work in building materials, Geodesy internship, Welding practice, Internship in site supervision, BIM on-site and Traineeships on construction sites. Internships ensure the implementation of the study programme and the achievement of the study results. The objective of the internships is to acquire the abilities and skills necessary for practical work and communication with colleagues and other involved parties. The opportunities and provision of internships offered to students and the organisation of work are effective. The tasks of the internships are related to the learning outcomes achievable. The internships comply with the requirements of regulatory enactments. There is a wide range of internship positions for choice for students - about 116 largest Latvian construction companies provide internship positions; among them "Agora, Ltd", "Rīgas Namu pārvaldnieks, Ltd", "Ogres Namsaimnieks, Ltd", "Energoremonts Rīga, Ltd", "Valsts nekustamie īpašumi, SJSC", "Skonto Būve", SIA "Skonto Construction", Būvfirma "NR", SIA "IMRE" etc.; however, sometimes students feel difficulties in selecting them.

2.2.5. Not applicable.

2.2.6. The topics of students' final theses (qualification work or diploma project) are relevant to the field and correspond to the study programme. The topic of the qualification work (Diploma project) is a design of a public building of various functionality (SAR, p. 120). A construction design for it is developed following the requirements of the national construction regulations and standards. The topic of the qualification work (diploma project) is relevant to the goal, objectives and tasks of the study programme.

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

The content of the programme is well-balanced in accordance with the regulations and standards, the requirements are clearly stated, and the expected outcomes are corresponding. However, the overall structure of the programme could be more solid; courses of only 1 CP could be joined into larger units. Also, the distribution of contents of several courses through the study semesters could be reconsidered since there are courses whose content in one separate semester is expressed in fractions. Whole numbers would be advised instead. Also, separate courses with similar content but different codes from different programmes could be joined to optimize the study resources.

Strengths:

1. Well-balanced content in accordance with the regulations and standards.
2. Wide selection of internship positions.

Weaknesses:

1. Too fragmented study courses (only 1 CP) may lead to too broad and superficial study results.
2. Not always the feedback provided is anonymous. There exist many informalities in the feedback process.
3. There exist too many informal means of communication between teachers and students - email, WhatsApp, Telegram, Skype, and Dropbox; the Moodle platform of the RBC should be prioritized.
4. There exist study courses of the same contents but different codes in the different study programmes of the field. RBC could rethink their consolidation.
5. Not always internship positions are provided by the HEI.

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

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

**Assessment of compliance:** Not relevant

## **2.3. Resources and Provision of the Study Programme**

### **Analysis**

2.3.1. the study programme aims to prepare the building site supervisors, who can ensure the quality performance of the construction works in conformity with the construction design, as well as complying with other regulatory enactments regulating construction and technologies for the use of construction products. The study provision, informative provision including library, material and technical provision, and financial provision comply with the specific features and conditions for the implementation of the study programme, create prerequisites for the achievement of the learning outcomes and indicate the possibility to ensure a high-quality study process (SAR, p. 121, 122). As observed during the evaluation visit, the study provision, informative provision, including library resources, and material and technical provision, are available to students and staff members. Students and staff members can use the free WiFi system in all RBC premises.

The library has an extensive collection of information units, and services for teaching and studying are available for students and staff members (SAR, p. 121, 122). However, as followed from the interviews with various focus groups during the evaluation visit (teaching staff, students), more attention could be paid to the use of digital information sources - databases, e-platforms etc. that can provide more actual information than printed sources.

Laboratory for construction materials for testing the properties of building materials, thus improving the quality of education, increases the competitiveness of RBC graduates. Laboratory equipment provides the possibility to carry out applied research (SAR, p. 122). The Moodle environment is used for the implementation of the study programme. In the Moodle environment, each student has access to the study courses, materials, etc. All teachers and students are assigned a Microsoft Office 365 account as well.

Students and teachers have access to four computer classes equipped with projectors, interactive boards, SMART screens, etc., as well as computers equipped with licensed software (SAR, p. 122, 123).

2.3.2. Not applicable.

2.3.3. The funding available to the study programme, funding sources and the use of funding ensures implementation of the study process; the study programme has a sufficient amount of students to ensure the profitability of the study programme and facilitates the development of the

study programme; however, taking into account the variable number of paid students in the program in each year of study (the changing situation of admission and budget places), it is not possible to determine the exact minimum number of students in the study programme in order to ensure its profitability (SAR, p. 126). To ensure the study process, the RBC uses both the state budget grant, its own revenue, and foreign financial assistance. The study programme is cost-effective because of the amount of state-funded positions granted each study year, and the tuition fee covers the costs of one student.

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

Resources available to students and staff members, including study rooms, laboratories, materials, technical bases, instruments and equipment, information networks (Internet, Moodle), free access to library resources, materials, services, and computer software, enable the acquisition of all study courses provided for the programme, as well as applied research at different stages, provide a flexible and targeted environment. The observations during the evaluation visit, together with the information provided by the RBC in the SAR, allow concluding that the available resources facilitate the development of the study programme.

Strengths:

- 1.The study provision and the corresponding informative provision, including library resources, material and technical provision and financial provision, comply with the specific features and conditions for implementing the study programme.
- 2.The laboratories and equipment provide opportunities for study and applied for research work.
- 3.The project “Modernisation of the laboratory for testing the properties of building materials” has improved the study environment of the study programmes of RBC - to modernise the building materials laboratory by equipping it with modern equipment for testing building materials, inventory and computer hardware suitable for effective training of students in working with specific computer programmes used in construction - BIM technologies.

Weaknesses:

None.

### **Assessment of the requirement [6]**

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

**Assessment of compliance:** Fully compliant

Resources available to students and staff members allow to deliver all courses of the programme, as well as to carry out research at different stages, providing a flexible and student-centred environment. The study programme uses well-equipped laboratories and various technical equipment - computers with licensed software, projectors, interactive whiteboards, etc. Good relations also have been developed between RBC and the construction industry that provides internship positions and participates in the development of the study programme. The library resources are extensive and available; however, more attention could be paid to the use of digital information sources - databases, e-platforms etc. that can provide more actual information than printed sources.

## **2.4. Teaching Staff**



## Analysis

2.4.1. The qualification of the teaching staff members involved in the implementation of the study program complies with the requirements for the implementation of the study programme and the requirements outlined in the regulatory enactments, and it enables the achievement of the aims and learning outcomes of the study program and the relevant study courses. Of the 28 teaching staff, 4 have PhDs and 14 with Master's degrees but with sufficient practical experience relevant to the subject. In addition, it must be noted that the severe involvement in the advancement of the study program through different pieces of training, reviews, and consultations (engagement of the staff in both professional and pedagogical qualification; annual seminar organisation for the pedagogical competencies; exchange tours of the staff to the up-to-date construction site, etc.) on a frequent and regular basis which at the same time enables the achievement of the aims and learning outcomes of the study programme and the relevant courses.

2.4.2. The study programme has purposefully taken measures so that changes in the composition of the teaching staff do positively affect the quality of the study program's implementation and the study program's compliance with the requirements specified in regulatory enactments. The long-serving lecturers in the field have been replaced by a number of professionals working in the field and newly qualified docents (Elīna Barone - Building Mechanics; Ingars Strazdiņš - BIM expert; Ilmārs Gorda - Roads and Bridges; Linda Krāģe - Laboratory work in building materials, etc.). It can be realised by the appointed academic staff, with the relevant professional background to the courses taught. The teaching staff's performance is evaluated in several areas; therefore, it is formal and well-defined.

2.4.3. Not applicable.

2.4.4. Annex 2.3.7, which indicates the teaching staff CVs has listed the work experience of each academic staff member in the last six years, which showcases a satisfactory practical experience relevant to the subject being taught. Each teaching staff member complies with the Law on Higher Education Institutions and has five years of practical work experience. According to the SAR and the RCB management interview, the teaching staff works closely with the industry within the study field framework. In contrast, a portion of their workload besides academia includes practical professional experience.

2.4.5. A mechanism for the cooperation of the teaching staff in implementing the study programme has been established. It ensures the achievement of the aims of the study program and the interconnection of study courses within the program. Both local and international experiences have been taken into account for the tailoring of the courses. The teaching staff and the director of the study program are the primary and equal stakeholders in cooperation or working together on the development of the study program (SAR, p.129). All the numerous activities are undertaken to ensure the quality of studies and support the latest professional trends. The teaching staff of the study programme conduct discussions and debates on topical issues of their own and their colleagues' study course content, coordinating the topics, as well as discussing the latest developments in the construction industry at different meetings organised by the lecturers or by the director. The lifelong learning seminars/projects have been proven to be effective, such as: the EU Lifelong Learning Programme Leonardo da Vinci, "Establishment of a structure of professional qualifications", "Development of a first level professional higher (college) education programme in the construction sector", etc. The lecture-student ratio is 1:4.5, thus guaranteeing individual effort with each student (SAR, p.130).

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

The newly engaged teaching staff has a qualified background relevant to the courses taught. Their skills follow the most recent professional and academic development. Their academic performance is evaluated through continuous and systematic performance appraisals following the criteria laid down in the internal rules on remuneration. During the expert panel interview, it could be understood that the teaching staff is involved in tailoring the program or institutional building, and a very effective system for the collaboration of the teaching staff in developing the study program has been proven. It guarantees the realization of the goals of the study program and the interconnection of study courses within the programme. Therefore, the teaching staff's performance is formal and well-defined. In contrast, there have been struggles with the teaching staff in acquiring the impetus for using new skills related to digital tools. There must be more outgoing academic mobility for the sake of the international experience and constructive cooperation with other architecture and construction schools.

Strengths:

1. Proper professional/practical qualification of the teaching staff for the taught courses
2. The programme's name is already known within the industry and academic environment of the region.

Weaknesses:

1. Motivations for using new skills related to digital tools.
2. Too low outgoing academic mobility.

## Assessment of the requirement [7]

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

**Assessment of compliance:** Fully compliant

The teaching staff's professional /practical qualification for the taught courses complies with the condition of the development of the study program. At the same time, the newly engaged teaching staff has a qualified background relevant to the courses taught. Their skills follow the most recent professional and academic development.

## 2.5. Assessment of the Compliance

### Requirements

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

**Assessment of compliance:** Fully compliant

The study programme "Civil Engineering and Construction" (41582) complies with the Professional Higher Education Standard (Cabinet of Ministers No. 141).

The study programme "Civil Engineering and Construction" volume is 120 CP, of which 21 CP are compulsory parts covering the overall educational field, 69 CP are for the compulsory elective part, 1 CP for the free elective part, 19CP for traineeship and 10CP for Qualification work.

The study programme includes modules for the development of professional competencies in entrepreneurship - the courses "Economics, Entrepreneurship" (1CP), "Building Economics"

(2CP), "Business Plan" (1CP) and "Psychology of business relationships" (2CP).

Compliance with requirements of the Environmental protection law and the Law on civil defence and disasters management: The compulsory part of the study programme includes the course of study: Ecology and environmental protection -2 CP The compulsory part of the study programme includes: Civil defence - 1 CP

Compliance with the study programme with the State Education Standard is described in Annex No 6. (3.2.1. Compliance of the study programme with a national education standard.pdf).

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

**Assessment of compliance:** Fully compliant

The study programme complies with a valid professional standard; see Annex No 7. (3.2.1.Compliance to the professional standard.pdf).

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

**Assessment of compliance:** Fully compliant

Study course descriptions and study materials are prepared in the Latvian language, and they satisfy requirements set in Law on Higher Education Institutions. However, RBC management must make sure that lecturers update study course descriptions with literature up to date regularly (at least once per year), not only when preparing for evaluation. College should focus more attention on the unified formatting of study course descriptions (study course content (covered topics and hour amount)).

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

**Assessment of compliance:** Fully compliant

The diploma issued complies with the state legislation and "Procedures by which documents certifying higher Education recognised by the State shall be issued" (Cabinet of Ministers No. 202). See annex of the study programme: Sample of the diploma (Annex: 3.1.2. Diploma Building.pdf)

See annex: 2.1.4. Study Agreements examples.pdf.

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Fully compliant

The academic staff has sufficient Latvian language knowledge for implementing study courses; see annex : 2.3.7. Latvian language proficiency.

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Fully compliant

Study agreements include all necessary parts set in legislation. See the annex: Study Agreements examples.

It is advised to include information about guarantees of compensation losses (11. and 12. criteria) so that this information is easier for the students to acknowledge already from the beginning.

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

**Assessment of compliance:** Fully compliant

RBC has cooperation agreements with Latvia University of Life Sciences and Technologies (LULST). In case the implementation of this study programme is terminated, students will be able to continue studies in LULST professional bachelor's study programme Construction (code 42582) or the short-cycle professional higher education programme Construction (code 41582). See annex: Cooperation Agreements.

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

**Assessment of compliance:** Fully compliant

RBC has a director's order/letter to Academic Information Centre that confirms it will compensate losses to students if the study programme is not accredited or loses its licence and the student does not wish to continue studies in another study programme. See annex: 2.1.4. On

compensation for damages. It is advised to include this information in the study agreement.

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Not relevant

### **Assessment of the requirement [8]**

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

**Assessment of compliance:** Fully compliant

All regulatory requirements are met and fulfilled.

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

General conclusions on the fulfilment of the requirements corresponding to the study programme, indicating whether such deficiencies have been identified that cannot be eliminated during the 2-year accreditation period, providing a conclusion on the possibility of implementing the study programme in all declared implementation options (for example, full-time intramural form, part-time distance-learning etc.) in all applied implementation languages (for example, Latvian and English) and in all applied implementation places (especially applicable if the programme is implemented in branches). The most important weaknesses and strengths identified in the study programme.

#### Strengths:

The changed title of the study programme from Construction to Civil Engineering and Construction allows better recognition of the specified profile of the programme.

The new professional standard Building Construction Manager (adopted 11.08.2021) provides a better overview of the profession and the necessary competencies and skills to obtain during the studies.

Well-balanced content in accordance with the regulations and standards.

Wide selection of internship positions.

#### Weaknesses:

Too fragmented study courses (only 1 CP) may lead to too broad and superficial study results.

Not always the feedback provided is anonymous. There exist many informalities in the feedback process.

There exist study courses of the same contents but different codes in the different study programmes of the field. RBC could rethink their consolidation.

Not always internship positions are provided by the HEI.

The availability of digital information sources - databases, e-platforms etc. that can provide more actual information than printed sources may seem somewhat insufficient.

### **Evaluation of the study programme "Civil Engineering and Construction"**

Evaluation of the study programme:

## 2.6. Recommendations for the Study Programme "Civil Engineering and Construction"

### Short-term recommendations

Strategic goals to overcome the problem of the decrease in the number of students should be set up. Appropriate countermeasures should be determined and implemented.

More systematic and frequent meetings among the academic staff and study programme director would be advised to create a better exchange of actual information and promote updating the contents of the study courses on a regular basis as well as to improve horizontal ties between the study programmes and to prevent duplication of study courses with similar contents but different codes and names in different study programmes.

Reduction of informalities in the communication between the students and teachers in the feedback process in general and broader usage and extended functionality of the Moodle information platform could be suggested.

More active involvement of students in mobility should be considered. Internship mobility could also be activated.

### Long-term recommendations

Merging the "small" study courses (only 1 CP) into larger ones and reducing too fragmented parts of the courses in different semesters should be reconsidered. Fractions in CP in semesters should be avoided.

Wider availability of digital information sources - databases, e-platforms etc. that can provide more actual information than the printed sources could be considered.

Motivation for teaching staff to promote wider usage of Moodle and e-platform should be introduced.

Offering international studies to increase the number of students would be maintained.

A continuation plan to address the risk of academic staff ageing should be introduced. There is a need to create a more substantial interest among young people in construction work. Attracting new professionals, especially graduates, both local and international, to the study process would be maintained.

Continuation of good cooperation with other scientific institutions and higher education institutions would be maintained.

Continuation of good cooperation with the professional civil engineers' associations would be maintained.

## II - "Engineering systems" ASSESSMENT

### II - "Engineering systems" ASSESSMENT

#### 2.1. Indicators Describing the Study Programme

##### Analysis

2.1.1. the study programme aims to prepare specialists corresponding to the needs of the construction industry who carry out the planning and management of the construction of specific engineering systems based on the project documentation, the contract conditions for the realisation of the construction object and their own experience.

Expected learning outcomes (SAR, p. 69.) offer insight into the connection between the outputs being gained via the SP, together with the correspondence to study field. The establishment, implementation and development of the study programme "Engineering Systems" take place within the framework of cooperation between RBC, RTU and the Construction Association, sharing academic, professional and material and technical resources of cooperation partners in the implementation of the programme.

The study programme "Engineering Systems" corresponds to the study field "Architecture and Construction" (code 41582), in which it is included. The study programme "Engineering Systems" is aligned with binding regulatory and legal documents. The basic principles and criteria for planning and forecasting human resources of the construction sector are described in the Development Strategy of the Latvian Construction Sector for 2017-2024.

2.1.2. The duration of study in the study programme "Engineering Systems" is three years full-time, the volume - 120 credit points (CP) (180 ECTS). The study process is organised in 6 semesters and culminates in a qualification work (diploma project). The learning outcomes of the study programme are linked to the European Qualification Framework (EQF). The educational credentials awarded for the study programme also include credits according to the European Qualifications Framework (EQF). Qualification to be obtained after graduation is the Construction manager of utilities.

The learning outcomes of the study programme are linked to the European Qualification Framework (EQF). The educational credentials awarded for the study programme also include credits according to the European Qualifications Framework (EQF).

The development and implementation of the study programme follow a logical sequence: the programme's aim and the tasks that follow it are formulated according to the requirements set out in the professional standard and the labour market demand. The programme's content (distribution of study courses) is based on the achievement of the objective and study results and the criteria set out in the education standard, linking them to current developments in the labour market and the latest scientific discoveries in the construction industry. The content of study courses is accordingly designed to implement the acquisition of knowledge, skills, and competencies defined in the professional standard and to ensure the realisation of the aim of the study programme. The content of study courses is discussed and approved in cooperation between the faculty members involved in the study programme, thus ensuring inter-subject coherence and the achievement of common requirements for study outcomes, as well as eliminating unnecessary duplication of content.

The content of the study programme "Engineering Systems" is aligned with the goals, objectives and results to be achieved, as well as is based on the admission requirements specified for applicants – general secondary or secondary vocational education, taking into account the centralised examination assessment in the first foreign language and mathematics. For those persons who have acquired secondary education before 2004 (excluding), as well as for persons who have acquired secondary education abroad or for persons with special needs, based on successful annual marks of the secondary education document, the evaluation of the competition shall be determined according to a special formula for calculating the assessment.

Also need to mention, it is a bit confusing, that in a map of professions included in the structure of qualifications in the construction industry name of profession are Engineering Systems Construction Manager or in Latvian Inženiersistēmu būvdarbu vadītājs as the same as study programmes parameters states, but in Annex 7 (3\_2\_1\_IS\_atbilstība\_profesijas\_standartam.pdf) Relevance of the study programme "Engineering Systems" to the professional standard Professional standard is

available only in Latvian (visc.gov.lv) (p. 277-282) the name of standard is : Professional standard of engineering communications construction works manager, or in Latvian: 2.55. Inženierkomunikāciju būvdarbu vadītāja profesijas standarts, clearly they differs, and that's why until the accreditation of this study field, RBC need look in to these documents and arrange this issue with the relevant industry council.

2.1.3. Since the previous accreditation of the study field, the study programme "Engineering Systems" has been improved, considering the demand of the labour market and the development strategy of the Latvian construction industry. In cooperation with the industry and analysing the labour market demand, changes have been made to the study plan of the study programme "Engineering Systems": i) study courses have changed their names; ii) study courses have updated content and iii) new study courses have been implemented to take account for new developments in the industry, science and digitalisation (SAR, p.66.).

Due to the addition of BIM (Building Information Modelling) courses to the study plan, the Information Technology course (1CP) has been removed from the study plan. From 2020, the RBC supports the use of the e-learning environment Moodle as well as other digital tools in the study process.

New courses have been added to the Engineering Systems study programme to take account of recent developments in industry, science and digitalisation: i) Psychology of management, ii) Energy efficiency in buildings, iii) BIM, iv) QA in construction, v) Innovation and research in construction, vi) Internship in construction supervision.

2.1.4. According to Partnership of Latvian Constructors, statistical data, Construction is the 7th largest employer among Latvian economic sectors. It accounts for around 60 thousand jobs or 6.4% of the total number of jobs. The sector is highly seasonal, with a difference of up to 10 thousand jobs between summer and winter, affecting the overall unemployment rate in Latvia by around one percentage point. Most of the construction workforce (around 27 thousand) is employed in specialised construction activities, such as demolition and site preparation, electrical installation, piping and completion of construction work. Around 22 thousand are employed in building construction, including project development. And 15 thousand jobs are in civil engineering, which includes the construction of roads, railways and urban infrastructure.

The Development Strategy of the Latvian Construction Sector for 2017-2024 (information available in Latvian only) indicates that qualified human resources are the cornerstone of the development, sustainability and competitiveness of both construction merchants and the entire construction industry. The industry aims to have highly qualified specialists in every construction profession, from managers, architects, and civil engineers to construction workers. In the understanding of the industry, a qualified employee is motivated, wants to belong to the construction industry, has a good theoretical knowledge base that corresponds to world development trends and has the ability to apply theory in practice with an understanding of his professional responsibility.

As a result of globalisation, an increasingly dynamic labour market demands not only excellent professional knowledge and qualifications but also good foreign language skills, which are given special attention in the study programme. The study programs "Engineering Systems" are interdisciplinary. It combines the acquisition of construction disciplines with in-depth study of foreign languages, thus preparing students for work in international companies, state and municipal institutions, and the private sector.

The number of students enrolled in the "Engineering Systems" SP during the reporting period equals to 355 students, while the number of graduates is 46.

The decline in the number of students in recent years can be attributed both to demographic trends and to the time of the Covid-19 pandemic. The number of students who left their studies in 2019 amounted to 32%, and in 2020 it comprised 38% of students.



In 2021, there was an 11% reduction in the number of students who have completed studies (in 2021, it comprised 27% of students), and during the last six years, the number of students who have stopped studying is 67, presenting 19% of the total number of 355 students.

2.1.5. Not applicable.

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

The study programme shows potential for future presence and developments. Up to date, SP shows compliance with SF and is in compliance with the national and EU regulations and standards.

Strengths:

1. study programme is compliant with study field.

Weaknesses:

1. The decline in the number of students actually becomes a trend.
2. The name of qualification to be obtained differs in state-level documents.

## **2.2. The Content of Studies and Implementation Thereof**

### **Analysis**

2.2.1. The study programme is focused on preparing specialists corresponding to the needs of the construction industry, who carry out the planning and management of the construction of specific engineering systems based on the project documentation, the conditions of the contract for the realisation of the construction object and their own experience (SAR, p. 68). The content of the study programme is topical, and the content of the study courses is interconnected and complementary. The mapping of the study courses (Annex) shows that it is focused on achieving the overall goal of the study programme. It corresponds to the objectives of the programme and ensures the achievement of learning outcomes, as well as meets the needs of the industry, labour market and research trends. The information, deliverables, objectives and other indicators contained in the study courses are consistent and interlinked with the objectives and deliverables of the study programme (SAR, p. 75). They promote the preparation of well-educated and skilled professionals in the field of architecture and construction. The topics of the study tasks in the study courses correspond to the outcomes defined by the study courses. However, the overall structure of the programme may seem somewhat too fragmented; many courses of only 1 CP are included (Annex 9). The programme could reconsider the possibility of joining the "small" courses into larger units. Separate courses, for example, Building Legislation, following the description, are almost the same as provided in the other study programme of the field, Civil Engineering and Construction, but with another code and a slightly different title (Annex Study Courses). Courses like that could be joined to optimise the study resources.

There exists a system for updating the study programme. It is carried out no more than once a year before the beginning of the current academic year. As follows from the interviews with the focus groups during the evaluation visit (programme director, teaching staff, graduates and employers), the labour market needs, research trends and the development topicalities of the Latvian construction industry are taken into account as well as the recommendations of experts from the field.

2.2.2. Not applicable.

2.2.3. The implementation of the study programme is carried out using various study forms, formal

and semi-formal education methods, as well as e-studies for the organisation of students' independent work (SAR, p. 76). The study programme uses contact studies, including lectures, practical classes, consultations, individual and group work, and discussions. In addition to the traditional forms of work, interactive study techniques and methods are used, promoting analytical, critical, problem-based, systemic and creative thinking, group and teamwork techniques, and applied communication, including intercultural communication, discussion, presentation, etc., development of skills (SAR, p. 76). A variety of study methods are chosen to develop students' ability to work individually and in groups, to solve problem cases that may arise on the construction site, to conduct research important for the construction industry, as well as to promote the achievement of the study results and the goals of the study programme.

Much attention is paid to students' independent work. Competence training, applied games, group work, etc., are integrated into the study courses (SAR, p. 76). The use of modern technical tools ensures the clarity of theoretical and practical learning. Requirements and methods are chosen according to the content and specificity of the study courses, as well as the organisation of the study process.

However, as stated during the evaluation visit, common standards in providing and getting feedback are not observed. Both formal and informal means of communication are widely used. More consequent use of Moodle-based communication could be considered.

2.2.4. The internships are an integral part of the study programme. They are organised following the objectives and tasks of the study programme and correspond to the requirements of the national professional standard Construction Manager. Internships in the study process ensure the implementation of the study programme and the achievement of study results because the planned study results are related and can also be achieved by implementing internship courses (SAR, p. 78). As observed in the interviews with the focus groups during the evaluation visit, there is a wide range of internship positions for choice for students under the supervision of experienced professionals ("Pillar Contractor, Ltd", "Lafivents, Ltd", "Rīgas Siltums, JSC", etc.).

2.2.5. Not applicable.

2.2.6. The topics of students' final theses (qualification work or diploma project) are relevant to the field and correspond to the study programme. The qualification work (diploma project) is planned, meeting the deadlines specified in the timetable for each part of the diploma project. The topic of the qualification work (Diploma project) is an engineering systems of an administrative building, a commercial building or an institutional building (SAR, p. 83, 84).

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

The content of the programme is well-balanced in accordance with the regulations and standards, the requirements are clearly stated, and the expected outcomes are corresponding.

Strengths:

1. Well-balanced content in accordance with the regulations and standards;
2. Wide selection of internship positions.

Weaknesses:

1. Too fragmented study courses (only 1 CP) may lead to too broad and superficial study results.
2. Not always the study feedback provided is anonymously. There exist many informalities in the feedback process.
3. There exist study courses of the same contents but different codes in the different study

programmes of the field. RBC could rethink their consolidation.

4. Not always internship positions are provided by the HEI.

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

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

**Assessment of compliance:** Not relevant

## **2.3. Resources and Provision of the Study Programme**

### **Analysis**

2.3.1. The study programme aims to prepare specialists corresponding to the needs of the construction industry who carry out the planning and management of the construction of specific engineering systems based on the project documentation, the contract conditions for the realisation of the construction object and their own experience (SAR, p. 68). The study provision, informative provision including library, material and technical provision and financial provision comply with specific features and the conditions for the implementation of the study programme, create prerequisites for the achievement of the learning outcomes and indicate the possibility of ensuring a high-quality study process. Resources available to the students – study rooms, laboratories, facilities, tools and equipment, information networks, databases, materials, services, and computerised applications and software allow students to take all the study courses included in the programme, as well as to conduct applied research at different stages, providing a flexible and student-centred environment (SAR, p. 85). As observed in the interviews with the focus groups (students, teaching staff) during the evaluation visit, students and staff members have access to library resources. As a STEM specialisation, the study programme requires smart materials, technologies and engineering systems, which can be studied in a modernised laboratory for testing the properties of construction materials. Welding machine for large polyethylene pipes, heating system balancing bench with 10 laboratory works, simulation equipment – building air handling, distribution and control stand, aerodynamic test bench, with the possibility to maintain, adjust and measure ventilation systems, heat loss measurements with an infrared thermography camera and building density (air permeability) testing with a "Blower door" machine with simulator, ventilation equipment, boiler diagnostics and control case, building air permeability detection system with building simulator are available for the study and applied research needs (SAR, p. 86). Students and faculty have access to and use a free Wi-Fi system in all rooms.

2.3.2. Not applicable.

2.3.3. To ensure the study process, the RBC uses both the state budget grant, its own revenue, and foreign financial assistance. The funding sources and the use of funding ensure full implementation of the study process; however, Taking into account the variable number of paid students in the program in each year of study (the changing situation of admission and budget positions), it is not possible to determine the exact minimum number of students in the study programme in order to ensure its profitability (SAR, p. 89). The study programme is cost-effective since the amount of state-funded positions granted each study year and the tuition fee cover the costs of one student.

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

Resources available to students and teachers, including study rooms, materials, technical bases,

instruments and equipment (for the preparation, combining, integration and visualisation of study and research materials), information networks (Internet, Moodle), free access to databases (book resource database), materials (research materials, scientific publications, archives), services (administrative, financial, IT and network support services, access to official statistics), computer applications and software (Standard Office, AutoCAD, Revit, online data visualisation tools and software, online means of communication) enable the acquisition of all study courses provided for the programme, as well as research at different stages, provide a flexible and targeted environment.

**Strengths:**

1. The proportion of the students with public and private funding (154 students (43%) with state budget funding and 201 students (57%) with private funding) provides sustainability of the study programme.
2. Available resources to students and teachers enable the acquisition of all study courses provided for the programme, as well as research at different stages, providing a flexible and targeted environment.

**Weaknesses:**

1. The availability of digital information sources - databases, e-platforms etc. that can provide more actual information than printed sources may seem somewhat insufficient.

**Assessment of the requirement [6]**

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

**Assessment of compliance:** Fully compliant

Resources available to students and staff members allow delivery of all course courses and carry out research at different stages, providing a flexible and student-centred environment. The study programme uses well-equipped laboratories and various technical equipment - computers with licensed software, projectors, interactive whiteboards, etc. Good relations also have been developed between RBC and the construction industry that provides internship positions and participates in the development of the study programme. The library resources are extensive and available; however, more attention could be paid to the use of digital information sources - databases, e-platforms etc. that can provide more actual information than printed sources.

**2.4. Teaching Staff**

**Analysis**

2.4.1. The qualification of the teaching staff members involved in the implementation of the study programme complies with the requirements for the implementation of the study programme and the requirements outlined in the regulatory enactments, and it enables the achievement of the aims and learning outcomes of the study program and the relevant study courses. In the academic year 2021/2022, the academic staff consists of 2 lecturers with a doctoral degree (11 % of all lecturers), 13 with a master's degree (72 % of all lecturers), and 3 specialists in the field (17 % of all lecturers) but with sufficient practical experience relevant to the subject (SAR, p.90). The composition of the teaching staff involved in the study program "Engineering Systems" is relatively stable; therefore, the development of this realm looks promising and bears the positive changes from the last accreditations. According to SAR p.90, the CVs and during the panel interview verified that most lecturers are professionals in the field. The expert group saw their professional preparedness with

the market as positive. Whereas within the framework of studies and research practice, students need to get acquainted with modern digital tools used in companies and structures in Latvia and abroad, which need to be taught by engaging lecturers. The research activities of the academic staff provide feedback for the transfer of knowledge from practice to creativity and vice versa.

2.4.2. The RCB has purposefully taken measures so that changes in the composition of the teaching staff do positively affect the quality of the study program's implementation and the study program's compliance with the requirements specified in regulatory enactments, especially with the newly qualified lecturers engaged from 2019, 2021, and 2022 (SAR, p.91). The long-standing teaching staff of the Engineering Systems study programme have been replaced by a number of industry professionals and newly qualified lecturers, such as Juris Kauliņš - Electronics Engineering, Ingars Strazdiņš - BIM expert, Jānis Juliks - Quality Assurance in Construction; Inga Roga - Operation of Engineering Systems etc. In contrast, the number of elected lectures needs to be increased and attain the younger generation, who are prone to changes with the dynamics of the new required digital skills due to having a more stable composition of the staff responsible for the program's continuation and maintaining the required changes.

2.4.3. Not applicable.

2.4.4. Annex 2.3.7, which indicates the teaching staff CVs has listed the work experience of each academic staff member in the last six years, which showcases a satisfactory practical experience relevant to the subject being taught. Each teaching staff member complies with the Law on Higher Education Institutions and has five years of practical work experience. According to the SAR and the RCB management interview, the teaching staff works closely with the industry within the study field framework. In contrast, a portion of their workload besides academia includes practical professional experience.

2.4.5. A mechanism for the cooperation of the teaching staff in implementing the study programme has been established. It ensures the achievement of the aims of the study program and the interconnection of study courses within the programme. Several lecturers are involved in the development and implementation of the course; Lecturers are involved in suggesting topics to be added to study courses, issues to be included in qualification works (diploma projects), and research directions. Discussions are organised at meetings of the RCB and the Department of Construction of the study direction "Engineering Systems" (SAR, p.92), where they review the topics and tasks of the courses and study works; topics and tasks of the qualification works; all types of test materials; all types of test materials and other issues of cooperation. The director of the study program is the primary contact person for cooperation or working together on the development of the study programme. All these activities ensure the quality of studies and support the latest professional trends. The lecture-student ratio is 1:2, thus ensuring an individual approach for each student.

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

The most significant advantage is the newly engaged lectures from industrial markets, whose experience is up-to-date and in line with the trends and courses taught. At the same time, the composition of the teaching staff involved in the study program "Engineering Systems" is relatively stable; therefore, the development of this realm looks promising and bears the positive changes from the last accreditations. At the same time, there have been inputs from the staff, students, and graduates about the importance of applying more digital tools. During the expert panel interview and SAR reading, it could be understood that the teaching staff is involved in tailoring the study programme. They can discuss and give further input at a yearly meeting organised by the

programme director. However, the expert panel encourages more frequent meetings. The teaching staff's performance is evaluated in several areas; therefore, it is formal and well-defined.

Strengths:

1. Proper professional/practical qualification of the teaching staff for the taught courses
2. Program's name is already known within the industry and academic environment of the region.

Weaknesses:

1. Very few formal meetings between the teaching staff and the director of the study program
2. Weak motivation of the staff members to use new skills related to digital tools.

## **Assessment of the requirement [7]**

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

**Assessment of compliance:** Fully compliant

The teaching staff's professional /practical qualification for the taught courses complies with the condition of the development of the study program. At the same time, the composition of the teaching staff involved in the study program "Engineering Systems" is relatively stable; therefore, the development of this realm looks promising and bears the positive changes from the last accreditations.

## **2.5. Assessment of the Compliance**

### **Requirements**

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

**Assessment of compliance:** Fully compliant

The study programme "Engineering Systems" (41582) complies with the Professional Higher Education Standard (Cabinet of Ministers No. 141).

Compliance with the study programme with the State Education Standard is described in Annex No. 3\_2\_1\_IS\_Compliance\_with\_the\_State\_education\_standart.pdf.

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

**Assessment of compliance:** Fully compliant

The study programme complies with a recently made valid professional standard PS-188 and sufficiently provides the required knowledge for carrying out basic tasks for the profession.

The study programme complies with a valid professional standard, see Annex No. 3\_2\_1\_IS\_Relevance\_to\_the\_professional\_standart.pdf.

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

**Assessment of compliance:** Fully compliant

Study course descriptions and study materials are prepared in the Latvian language, and they satisfy requirements set in Law on Higher Education Institutions. However, RBC management must make sure that lecturers update study course descriptions with literature up to date regularly (at least once per year), not only when preparing for evaluation. College should focus more attention on the unified formatting of study course descriptions (study course content (covered topics and hour amount)).

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

**Assessment of compliance:** Fully compliant

The diploma issued complies with the state legislation and "Procedures by which documents certifying higher Education recognised by the State shall be issued" (Cabinet of Ministers No. 202). See annex of the study programme: 3\_1\_2\_IS\_Diploma.pdf  
See annex: 2.1.4. Study Agreements examples.pdf.

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Fully compliant

The academic staff has sufficient Latvian language knowledge for implementing study courses, see annex: 2.3.7. Latvian language proficiency.

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Fully compliant

Study agreements include all necessary parts set in legislation. See the annex: 2.1.4. Study Agreements examples.

It is advised to include information about guarantees of compensation losses (11. and 12. criteria) so that this information is easier for the students to acknowledge already from the beginning.

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

**Assessment of compliance:** Fully compliant

RBC has cooperation agreements with Riga Technical University. In case the implementation of this study programme is terminated, students will be able to continue their studies in RTU professional bachelor study programme "Heat, Gas and Water Technology" (code 42582). See annex: 2.5.1. Cooperation Agreements.

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

**Assessment of compliance:** Fully compliant

RBC has directors order/letter to Academic Information Centre that confirms it will compensate losses to students if the study programme is not accredited or loses its license and the student does not wish to continue studies in another study programme. See annex: 2.1.4. On compensation for damages. It is advised to include this information in the study agreement.

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

**Assessment of compliance:** Not relevant

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

**Assessment of compliance:** Not relevant

**Assessment of the requirement [8]**

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

**Assessment of compliance:** Fully compliant

All regulatory requirements are met and fulfilled.

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

General conclusions on the fulfilment of the requirements corresponding to the study programme, indicating whether such deficiencies have been identified that cannot be eliminated during the 2-year accreditation period, providing a conclusion on the possibility of implementing the study



programme in all declared implementation options (for example, full-time intramural form, part-time distance-learning etc.) in all applied implementation languages (for example, Latvian and English) and in all applied implementation places (especially applicable if the programme is implemented in branches). The most important weaknesses and strengths identified in the study programme.

**Strengths:**

Well-balanced content in accordance with the regulations and standards;  
Wide selection of internship positions.

**Weaknesses:**

Not always the feedback provided is anonymous. There exist many informalities in the feedback process.

There exist study courses of the same contents but different codes in the different study programmes of the field. RBC could rethink their consolidation.

Not always internship positions are provided by the HEI.

### **Evaluation of the study programme "Engineering systems"**

Evaluation of the study programme:

Good

### **2.6. Recommendations for the Study Programme "Engineering systems"**

#### **Short-term recommendations**

Strategic goals to overcome the problem of the decrease in the number of enrolled students should be set up. Appropriate countermeasures should be determined and implemented.

More systematic and frequent meetings among the academic staff and study programme director would be advised to create a better exchange of actual information and promote updating the contents of the study courses on a regular basis as well as to improve horizontal ties between the study programmes and to prevent duplication of study courses with similar contents but different codes and names in different study programmes.

The internal means of communication between students and teachers should be optimised, excluding the dominating informal means and replacing them with the Moodle-based communication developed and recognised by RBC.

More active involvement of students in mobility should be considered. Internship mobility could also be activated.

#### **Long-term recommendations**

Consolidation of the "small" study courses (only 1 CP) in larger courses should be reconsidered.

Wider availability of digital information sources - databases, e-platforms etc. that can provide more actual information than the printed sources could be considered.

Motivation for teaching staff to promote wider usage of Moodle and e-platform should be introduced.

Offering international studies to increase the number of students would be maintained.

A continuation plan to address the risk of academic staff ageing should be introduced. There is a need to create a more substantial interest among young people in construction work. Attracting new professionals, especially graduates, both local and international, to the study process would be maintained.

Continuation of good cooperation with other scientific institutions and higher education institutions would be maintained.

Continuation of good cooperation with the professional civil engineers' associations would be maintained.

RBC need to address issue with the relevant industry council, that name of profession differs in state level documents

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

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

##### Assessment of the Requirements for the Study Field

Requirements	Requirement Evaluation		Comment
R1 - Pursuant to Section 5, Paragraph 2.1 of the Law on Higher Education Institutions, the higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study field whilst implementing its internal quality assurance system:		Partially compliant	The requirement is evaluated as fully compliant based on the following sub-criteria evaluated as fulfilled - RBC ensures continuous improvement, development, and efficient performance of the study field whilst implementing its internal quality assurance system. RBC has developed and successfully implemented QA documentation, including the necessary methods for developing and reviewing study programmes. However there is some issues that are identified ( see analysis 1.2. and requirement point 1.2.)
R2 - Compliance of scientific research and artistic creation with the level of development of scientific research and artistic creation (if applicable)	Fully compliant		The applied research and design approach is conducted effectively, and outcomes are developed and incorporated into the study content. However, there is a need for modernization and up-to-date skills, and RBC should find ways of endorsing greater immersion from the teaching staff.

Requirements	Requirement Evaluation		Comment
R3 - The cooperation implemented within the study field with various Latvian and foreign organizations ensures the achievement of the aims of the study field.		Partially compliant	RBC has established a wide network of mobility and cooperation partners both in Latvia and abroad. The network covers partners from academia, professional bodies and associations and NGOs. This allows to development of good relations between academia and industry, aiming at empowering the study environment and increasing the study results. Nevertheless, priority should be given to increasing mobility within the students of the programmes “Civil Engineering and Construction” and “Engineering Systems”, including internship mobility, as well as to improving the English language skills of the staff members.
R4 - Elimination of deficiencies and shortcomings identified in the previous assessment of the study field, if any, or implementation of the recommendations provided.	Fully compliant		RBC has acknowledged previous recommendations and are implementing them to improve the study field and study programmes. There are some deficiencies, but RBC has addressed them and are still improving. These deficiencies are not that important to evaluate this section as partially compliant.

#### 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	Architectural technology (41581)	Not relevant	Fully compliant	Fully compliant	Fully compliant	Good

<b>No.</b>	<b>Study programme</b>	<b>R5</b>	<b>R6</b>	<b>R7</b>	<b>R8</b>	<b>Evaluation of the study programme (excellent, good, average, poor)</b>
2	Civil Engineering and Construction (41582)	Not relevant	Fully compliant	Fully compliant	Fully compliant	Good
3	Engineering systems (41582)	Not relevant	Fully compliant	Fully compliant	Fully compliant	Good

### **The Dissenting Opinions of the Experts**

none