

Expert group joint opinion

Evaluation Procedure: Assessment of Study Field

Higher Education Institution: Vocational education competence center "Riga Technical College"

Study field: Transport Services

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

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The subject of the work undertaken was a quality assessment of the “Transport Services” study field and its one study programme, namely the short-cycle professional higher education study programme “Telematics and Logistics” taught at the Riga Technical College, Riga, Latvia.

The Riga Technical College (hereafter referred to as: the RTC) is a state-founded professional higher education institution whose origins date back as far as early 20th century. The college has been operating under the name RTC since 1992 and was first accredited in 2002. In total, the RTC runs 10 study programmes in 5 study fields. All of them are short-cycle professional higher education programmes taught in Latvian only. The “Telematics and Logistics” study programme which has been the subject of this evaluation was first accredited in 2013 and targets a lucrative and strategically important Latvian business sector of transportation and logistics by educating skilled logistics specialists able to respond to the challenges of 21st century transportation and logistics. The programme is taught entirely at RTC’s premises in Riga and in the academic year 2022/23 the total of 19 students was admitted to the programme.

With respect to the number of students enrolled, the “Telematics and Logistics” study programme may be considered the second least contributing programme taught at the RTC. As has been the case with many other study fields in Latvia and elsewhere in the EU, in recent years the “Transport Services” study field and transport and logistics-related study programmes have been susceptible to declining numbers of students enrolled. As a result, the “Telematics and Logistics” study programme also struggles not merely with the declining interest amongst prospective students, but also with the high dropouts in the current student population. This, however, the RTC has failed to recognise as a major strategic challenge needed to be dealt with. Even though similar trends are visible in almost all other study programmes taught at the college, none of the strategic priorities outlined in the current RTC Strategy of Developments and Investments 2021-2027 document targets specifically the declining number of students.

Both the evaluated study field and the study programme have been operating in the business sector which is more than likely to generate considerable interest amongst all the stakeholders in the coming years. As such the expert group finds it rather odd that the interest for a paid placement in a relatively simple and time-effective study programme continues to drop. If this is coupled with the fact that even the signed-in students eventually decide to discontinue their studies at the RTC, it is fair to assume that despite the student-centred approach, focus on internships and very competitive time-to-job market, the programme content does not generate tangible professional assets a graduated student would eventually be able to monetise. In this regard, the expert group maintains that the SWOT analysis undertaken as a part of this procedure is rather dubious and not matching the severity of the poor performance indicators such as the declining number of students and high dropout rates. The expert group also appreciates that, since recently, the management and the study process itself have been undergoing considerable changes with important positions being only freshly filled, still it is rather unusual that the newly appointed managers struggle with providing feedback on important operational performance issues such as the key competitors, details on target student population, optimal cost breakdown structure and similar.

Even though the college prides itself to have developed a robust, logical, and transparent quality assurance system aimed at ensuring that the study programmes are continually updated and meet high educational standards, the operational implementation of the system suffers from flaws like the poor realisation of student surveys, insufficient control over the quality of student course papers, poor handling of student complaints and many other.

With respect to the resources needed for the provision of the “Transport Services” study field and the “Telematics and Logistics” study programme, the expert group maintains that the key

infrastructural resources such as the teaching facilities, classrooms and other such physical infrastructure may indeed be considered adequate and allowing for quality realisation of the study processes. However, a similar level of adequacy is not present with the dedicated transport and logistics-centred infrastructure – hardware, software and data – aimed at underpinning the industry specific teaching processes.

In addition to the lacking sector-specific infrastructure, another critical element impeding the realisation of the study programme is its content which may only partially be seen as topical and corresponding to the actual trends. The content thus relies heavily on study courses dealing with general economics while the share of industry specific sectoral courses is rather marginal and reflecting only introductory level transportation and logistics. Moreover, the content may also be found unbalanced as it brings about rather sophisticated subjects, technologies and/or concepts even very early in the teaching process, despite the fact that a proper grasp on these technologies and concepts would for sure require advanced knowledge in many supporting disciplines not covered at all by the study programme itself. Finally, given that the teaching process is only scarcely underpinned by contemporary dedicated (transport and logistics-focused) digital solutions, the only proper hands-on experience in using such solutions in everyday business practice students get through internships.

Even though internships play a vital role in reaching the overall aims of both the study field and the study programme evaluated, the RTC has established good relationships only with industry partners operating in Latvia. In this regard, the expert group fully appreciates the RTC to have been focusing on the national economy only, however, given the global context of any transportation & logistics thinking and doing, any study programme educating logistics specialists of today should encourage students to exercise as much internationalised studying as possible. Indeed, some efforts have been made in stimulating and realising staff and student outward mobility, nevertheless, all of them may only be seen as marginally contributing to the quality of the teaching process.

Finally, despite a number of challenges and issues to be addressed in order to meet high standards of educational quality, RTC's most important resource is its team of dedicated professionals all strongly believing in the right cause behind both the study field and the study programme. The expert group has rest assured that the teaching process is facilitated by competent, readily available and motivated staff and guest lecturers able to impart both theoretical knowledge and practical experience to the benefit of their students.

I - Assessment of the Study Field

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1.1 Management of the Study Field

Analysis

1.1.1. The aims of the study field are only marginally clearly defined. A typical example of the dubious strategic objectives outlined in the Self Evaluation Report (hereafter referred to as: the SER), which illustrate lacking strategic vision is, for instance, to “offer and implement educational programmes in accordance with the development trends of the national economy and modern-day education” (SER p.5). Even though such a development objective may indeed be deemed generally adequate, it may equally be considered self-explanatory and hence redundant as it would be hard to imagine any corresponding alternate objectives to be considered plausible at all (i.e. offer and implement study programmes which are NOT in accordance with the development trends of the national economy). Furthermore, the lack of clear development vision is also visible in the supporting strategic documentation. Thus, for instance, even though the institution has been witnessing a continuous trend in declining number of students, in the strategic development plan (the document entitled “Pielikums_2_1_2_1 Logistika_Plans_eng_upd”), this has not been adequately

addressed. On the contrary, putting the much needed increase in the number of students which has been addressed in the strategic objective formalised as to “Gradually attract and increase the number of students” in the same category with a mere forklift purchase (the objective defined as “Purchase an electric forklift and, in order to arrange documentation, permits, issue driving licences to students over time, after passing the courses”) suggests the lack of strategic planning skills and failure to identify specifics of the RTC’s academic offering.

In addition to the vagueness and generic nature of the strategic objectives, the RTC has also failed to define mechanisms through which meeting the objectives would be regularly and purposefully assessed. The documentation set provided does indeed suggest some basic analyses of the national economy needs have been undertaken, however, none of them has taken into account statistics other than those provided by typical government-run sources. As such, the expert group maintains important specifics which would help positioning the RTC better on the labour market have been left uncovered and the RTC is only partially aware of the addressable market it may target.

Finally, it is also to be underlined that even though setting up mechanisms for continuous market trends monitoring had been given as a long-term recommendation in the previous quality assessment procedure, the RTC has failed to present tangible proofs of such mechanisms to have been implemented in a proper systematic manner. Indeed, statements provided in the SER such as that “A mechanism has been developed to keep up-to-date trends in the labour market every year. Guest lectures from both industry and other universities are also regularly invited” (SER p.70) may even be considered as a demonstration of a rather dubious “trend-monitoring” practice leaving the guest lecturers to communicate their own perception of the market trends rather than to come up with a structured RTC-designed system of continuous market indicator monitoring.

1.1.2. The SWOT analysis presented in the SER provides some identification of the challenges and context the study field has been dealing with, however, many of the findings summarised in the analysis may be deemed questionable and dubious. Thus, for instance, in the SWOT analysis it is said that “the technical and material base (of both the study programme and the study field) is rapidly becoming obsolete” (SER p.21) and that this is considered to have been one of the most imminent threats to the successfulness of the study field. At the same time, in the undertaken surveys (document entitled “2.2.4.5.VISAS APTAUJAS”, p5), it may be found that the majority of students (up to 70%) are happy with the applicability of knowledge and skills they had acquired during their studies stating they “feel confident in their ability to use the knowledge of the use of the specified loading and unloading equipment and more than 50 percent of the graduates know how to use geographical maps for the performance of work duties”.

The findings of the SWOT may be found even more dubious when compared against the feedback received from the interviewed employers which unanimously communicated any contemporary equipment the RTC might be using in such a short teaching process may hardly match up the sophistication level of the equipment used in the real-life processes they typically deal with, leading to a conclusion they would far more benefit from gymnasium-type graduates rather than narrow-band specialist. Moreover, they see the widely known poor reputation of the RTC with respect to the capacities of a RTC graduated student to be the key reason behind the continuous drop in the number of students. Even though the institution prides itself to have been maintaining “Good contacts with employers in Latvia and the EU, as well as cooperation with industry associations” claiming this to be one of its strengths, neither of the above employer’s feedbacks has been either discussed or addressed in the SWOT analysis.

Finally, the feedback from the interviewed students identified a typical lack of professional and general interest among students to be the key reason behind the relatively high student drop out rate. In addition, they have also claimed to have been attracted by the study programme not for its expected learning outcomes but rather by the fact it is a short government-sponsored programme with very low admission requirements. Although, it may be argued that in the undertaken SWOT

analysis the above has been indirectly addressed in the weakness formalised as “Applicants have poor knowledge of science subjects”, still, given the severity of the consequences such a student attitude may result with, the expert group feels far more effort should have been investment in understanding the context behind such perception and setting up the corresponding tackling measures.

1.1.3. Both the study field and the study programme may be considered relatively simple to manage given the number of study programmes included in the study field, the duration of the study process and the number of students they operate with. Despite the straightforwardness and relatively shallow management structure, the efficacy of the management may not be deemed adequate. Examples of these inadequacies are ample. Thus, for instance, when asked to comment on the study process cost-breakdown provided in the SER (p.43), which states that roughly 70% of the funding available is used to cover the salaries only, leaving the remaining 30% (of which ca. 10% for the infrastructure and resources) to ensure long term sustainability of the study field/programme, the study field management demonstrated a complete lack of any familiarisation with the financial background of the programme realisation. Similar level of confidence was shown when commenting on the presented SWOT analysis of RTC / study programme’s strategic positioning on the academic “market”. Through the undertaken interviews the expert group has been informed that certain changes in both the management and the teaching staff have been made in order to address these challenges (eg. the new appointment of the Computer Science and Electronics Department manager, the new appointment of the “Transport Telematics” study course lead recognising the importance of the given study course for the study programme learning outcomes as well as the study field itself), nevertheless, these changes are yet to prove themselves and the managerial processes behind them successful.

The technical and administrative staff may be deemed adequate and meet all the study programme needs. The expert group has not received any negative feedback which would suggest wrongdoing by either technical or admin staff.

1.1.4. As commented in Section 1.1.2., prospective students get attracted by the study programme mainly by the fact it is a short government-sponsored programme with very low admission requirements. A number of students interviewed clearly stated “I couldn’t get a paid study place anywhere else with my grades” holding this a major factor influencing their opting for the RTC. It is hence fair to say that the admission procedures aimed at recognising the study period, professional experience, prior formal and non-formal education have been effective but favour rather low entry quality.

The process of recognising the learning outcomes achieved in previous education or professional experience is governed by the corresponding regulation document (the document entitled “Regulations on the Recognition of Study Outcomes Achieved in Previous Education or Professional Experience”). Applicants for full-time studies compete for their placements based on the total number of points scored in two state exams, namely the exam in Latvian language, and the maths, physics or English language state exam. Applicants who have obtained a related vocational education and passed the state professional qualification exam with a score of 7 or higher receive an additional 2 points. Even though the admission requirements go even as far as stimulating interest of maths and physics prize winners granting them straightforward admission to the study programme, given the feedback received from the interviewed students and graduates, it is fair to assume these entry requirements are rarely consumed and such students seldom find the RTC interesting enough to continue their education here.

In addition to providing a system of valuing the secondary education achievements of prospective students, the Regulations on the Recognition of Study Outcomes Achieved in Previous Education or Professional Experience also regulates way of acknowledging student’s previous professional

experience. The regulation hence stipulate that learning outcomes achieved in the professional experience may be recognised up to a maximum of 30 per cent of the professional or academic study programme. This however does not get significantly exercised in practice as only four such valuations have been undertaken in the past 10 years.

1.1.5. Methods, principles and procedures for assessing achievements of students may be considered to have been set up and clearly defined. The RTC utilises typical assessment methods used in higher education which all comply with the Cabinet of Ministers Regulations No. 305 of June 21, 2023, "Regulations on the State Standard of the State Professional Higher Education". Students' achievements are assessed during the semester, at the end of semester, and upon completion of the study. During the semester, students' achievements are tested and evaluated through tests, essays, practical work, participation in discussions and other such means. Even though in the SER (p.29) the RTC also puts the development of computer programs and databases as a way to assess students' achievements, the expert group has not witnessed any single such example of programme coding or similar IT-centric undertaking to have been used as means to both develop practical skills or assess the level to which a particular learning outcome has been met.

Given that the syllabi have been heavily relying on introducing students to a variety of transportation and logistics theoretical knowledge, practical skills students mostly acquire through internships. Upon completing an internship, students submit a report which includes a description of the work done during the internship process and the analysis of the results made. This is then followed by a viva voce undertaken before a commission which either accepts or declines the internship report. Upon completing their studies, students prepare a state-regulated qualification work to prove reaching the expected learning outcomes via practical demonstration of the knowledge and skills acquired during their studies.

Although the above summarised system for assessing students' achievements may be deemed adequate, there are certain rooms for improvements. These are primarily related to the dubious assessment practices used by some study courses which utilise non-graded testing. According to the course descriptions provided in the "Pielikums_3_2_1_7_Study_courses_catalogue_EN_UPD (2)" document, examples of study courses exercising such a practice include the "Marketing", "Environment and Civil Protection", and "Business Mathematics". During the site visit the expert group has confronted both teachers and RTC management with potential problems the use of nongraded tests might cause, and the feedback received suggested the system is already undergoing adequate changes. In this regard, the expert group has been made aware that at the time of this writing only two study courses from the given study programme recognise the 'pass without a grade' examination outcome, namely the 'Basics of Survey Research' and 'Occupational Safety' courses, in addition to student internships.

1.1.6. Tackling plagiarism is facilitated by means of the so-called Computer-Aided Plagiarism Control System (CAPS) widely used by Latvian higher education institutions. The system has been well tested and proven in practice and allows for checking the content of the qualification papers of the graduates, but also underpinning the daily study process in terms of examining course papers, reports, essays, argumentation papers and others. Students are introduced to the system as a part of the "Fundamentals of Research Work" and the "Applied Latvian Language" courses, and are provided with the access to the system through Moodle. The expert group finds the demonstrated level of anti-plagiarism mechanisms mostly sufficient and matching the profile of the study field/programme. However, the expert group would still suggests the corresponding regulation covering the plagiarism issues (Rules of Academic Integrity document No.1.1.-2/27 from Dec 2023) is updated such that to include concrete actions to be taken in case of integrity violations made by

RTC's academic, teaching and general staff, instead of merely forwarding such cases to the Ethics Committee.

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

Conclusions:

The aims of the study field are only marginally clearly defined and the findings of the undertaken SWOT analysis may be found dubious and not matching the severity of the performance indicators such as the declining number of students and high drop out rates. Since recently, the management and the study process itself have been undergoing considerable changes with important positions being only freshly filled, still it may be found rather unusual that the newly appointed managers struggle with providing feedback on strategic development issues such as the target student population, optimal cost breakdown structure and similar. The admission procedures aimed at recognising the study period, professional experience, prior formal and non-formal education have been effective but may equally be deemed as favouring rather low entry quality. Equally effective are the methods, principles and procedures for assessing achievements of students apart from a few examples of using a non-graded testing. Tackling plagiarism is facilitated by the widely used CAPS system.

Strengths:

1) Relatively simple operational implementation context of the study field featuring a single study programme, coupled with a shallow management structure, allows for easy running and quick implementation of changes.

Weaknesses:

1) Lack of clear strategic development vision with loosely defined learning outcomes is likely to have led to poor reputation in the academic sector.

1.2. Efficiency of the Internal Quality Assurance System

Analysis

1.2.1. The internal quality assurance system at the RTC formally demonstrates a comprehensive and structured approach to ensuring the effectiveness and continuous improvement of study programmes taught. According to the SER (section 2.2.1.), the system combines several subsystems, each of which is aimed at achieving strategic goals, maintaining operations and improving teaching and learning practices. Quality policy is available at <https://rtk.lv/usr/dok/1711362023.pdf> (approved 07.06.2022., # 1.1.-2/7). However, many aspects of this document are formal and do not work in practice.

QA system:

The quality assurance system ensures that the teaching staff is qualified and continuously engaged in professional development. The teaching staff is encouraged to participate in international projects, research and continuous training, which in part enhances the quality of teaching and the relevance of educational practice to modern pedagogical trends. However, the documents submitted by the RTC contain limited information on the development of the teaching staff. The existing process for evaluating the teaching staff is not sufficient. The system lacks detailed information on how consistently or effectively the professional development of teachers is implemented - there are no results of the annual evaluation of the teaching staff on pedagogical, organisational and scientific activities, there is no data on the plan for the development of the teaching staff for subsequent years.

Innovative learning environment and research integration:

The RTC places emphasis on creating a learning environment that makes use of selected modern technologies and in part promotes innovation. The integration of research methods and practical learning has an important place in RTC's academic philosophy, ensuring that students not only acquire theoretical knowledge but also develop competencies that are directly applicable in their professional fields. However, when the experts familiarised themselves with the course papers and qualification papers submitted by the RTC management over the past 6 years, it was found that the quality of these papers is often insufficient. The most common shortcomings are: lack of economic and logistical calculations, lack of the required number of literary sources, lack of proposals for improvement, poor-quality conclusions, use of Wikipedia as a source of literature. Despite this, the assessment commissions still find such works meeting the required academic quality grading it as good or very good.

Monitoring and feedback mechanisms:

Formal regular evaluations, occasional discussions, surveys (with the disadvantage of anonymity) and self-assessments form the formal basis of RTC's quality management system. Annual evaluations of courses, teaching staff performance and institutional progress enable areas for improvement to be identified early. Feedback from students, employers and teachers is systematically collected and used to improve programmes and teaching methods, thereby promoting a culture of continuous improvement.

Performance indicators:

The system is partially effective in tracking key indicators such as completion rates, dropout rates, national examination results, employment outcomes and student and employer satisfaction.

During the discussion with the RTC management, it was noted that there are several factors that complicate the successful implementation of the quality policy, namely: changes in the RTC organisational structure in 2023; change of the college director in early 2024; change of the director of the study field and study programme in mid-2024; a sharp decrease in the number of students in the study field over the past 3 years; high turnover of academic staff over the past 2 years; lack of high-quality and anonymous surveys of students and graduates; weak content of study materials in course pages in the Moodle electronic platform.

1.2.2. The procedures for developing and reviewing curricula at the RTC are partly structured, logical and partly participatory (SER, section 2.2.2.). The institution follows the process set out in the Procedure for Developing and Updating Curricula, which ensures that the curricula are in line with RTC's strategic objectives, national standards and international guidelines such as those set by the Council of Europe and the European Higher Education Area (EHEA). This adherence to a high-level framework ensures that the curricula meet academic and professional standards and ensure students' personal development and readiness for democratic cooperation.

It should also be noted that the improvement process of the study field has only been partially implemented. The RTC management does not sufficiently use the advice and improvement ideas from students, graduates, academic staff and employers/industry representatives.

During the conversation of experts with the RTC graduates it was found that the Moodle electronic system is rarely used by academic staff, and that individual study materials in Moodle are outdated and insufficient to improve knowledge and skills. In most cases, teachers send study materials via email. Insufficient support for students from academic supervisors during the development of qualification papers. Insufficient number of practical classes, especially on the latest technologies (IT tools) in the field of transport and logistics, lack of analysis of real situations in logistics enterprises, insufficient number of invited lecturers - representatives of the industry.

Both students and graduates indicated that they would not be willing to pay the tuitions in this study field if they did not receive state-funded budget places in RTC.

During the experts' communication with the teaching staff, the following shortcomings were identified: insufficient regulation and standardisation of the Moodle electronic platform by RTC

management, it is necessary to combine individual small subjects (1-2 ECTS), an insufficient number of practical classes and IT tools for information technology in logistics.

1.2.3. The procedures for submitting and reviewing student complaints and suggestions at RTC (according to SER, section 2.2.3.) are merely formal and are not comprehensive, transparent and student-oriented. The institution has developed a clear structure as stated in the Procedures for Submitting and Reviewing Student Suggestions and Complaints. However, the implementation does not allow students to express concerns or suggestions through various channels, including oral, written and electronic statements. These procedures are available to all students and staff, which does not demonstrate RTC's commitment to open communication and continuous improvement of the learning environment. During the conversation of experts with the RTC students (09/25/2024) it was found that the surveys for students were conducted poorly - by printing out and distributing survey questionnaires to students by the programme director during classes. Thus, the anonymity of students during the survey was not maintained.

1.2.4. It is very difficult to judge the satisfaction of graduates with the study process and content, if, according to the appendix 2.2.4.5., there has been a very small number of graduates in recent years (7 in 2022, and only 3 in 2023). The evaluation and management of student performance at the RTC (SER, section 2.2.4.) are systematically structured, with key procedures outlined for monitoring academic progress and ensuring compliance with academic and financial obligations. At the end of each semester, student performance and enrollment changes are summarised and analysed, providing a clear picture of both individual and collective academic achievements. A notable aspect of RTC's academic policy (SER, section 2.2.4., annex 2.2.4.1.) is the system of rotating students between state-funded and self-funded study places, based on their performance. Students who fail to meet their academic obligations without a valid reason are moved from state-funded to self-funded positions, with expulsion as a potential consequence for those who do not sign self-funded study contracts. However, during the experts' conversations with students and graduates, not a single case was revealed where a student who had lost a state-funded place would be willing to pay for tuition at a given college.

The rotation is carried out in line with the agreement between the RTC and the Latvian Ministry of Education and Science, ensuring that the allocation of state-funded study places aligns with the applicable national education policies. The system appears well-structured, with the Student Service Database and VIIS system tracking student performance, preparing academic statements, and storing data for diploma supplements. This information is also shared with RTC staff at the start of the academic year, ensuring transparency.

Feedback from students (SER, section 2.2.4., annex 2.2.4.6.) and graduates (SER, section 2.2.4., annex 2.2.4.5.) is formally and systematically collected, processed, and presumably used to improve programs and teaching methods. Summarising the answers of the graduates for 9 years, the graph (SER, section 2.2.4., annex 2.2.4.5., figure 8) shows that only 70 percent of the graduates feel confident about their skills in using the knowledge of the use of the specified loading and unloading equipment and only about 50 percent of the graduates know how to use geographical maps for the performance of work duties and at home.

The RTC has also maintained strong relationships with employers, who have played an active role in assessing students' qualifications and offering internships, thereby increasing the practical relevance of the study programmes. Partnerships with companies such as SIA "DSV" (SER, section 2.2.4., annex 2.2.4.9.) and "Latvijas Pasts" (SER, section 2.2.4., annex 2.2.4.12.) provide students with some work experience, while cooperation with academic institutions such as Riga Technical University (SER, section 2.2.4., annex 2.2.4.10.) and Riga Civil Engineering College (SER, section 2.2.4., annex 2.2.4.11.) provides opportunities for continuing education and joint research activities. However, according to discussions between experts and employers, the practical implementation of

these activities has significantly decreased over the past 2-3 years.

Overall, RTC's procedures for managing student performance and stakeholder engagement appear formally, according to the RTC's internal documents, to be well developed and in line with both academic and industry standards. The institution's efforts to regularly evaluate and improve its programmes based on survey results and employer feedback highlight its commitment to providing high-quality education and ensuring that its graduates are well prepared for the labour market. However, ongoing monitoring of student feedback mechanisms and implementation require significant improvement. It is also worth noting the risk of changes in the policy for providing state-funded places in the coming years. Given that students do not want to study at the RTC at their own expense, this may lead to the impossibility of forming new groups.

1.2.5. The RTC provides (SER, section 2.2.5.) detailed information about its study fields and programmes through its official website, with the study process conducted solely in Latvian. Since April, the college has transitioned to a new website, where all relevant academic information is made available. The website is predominantly in Latvian, catering to the local student body. The website administrator ensures timely publication of information, while unit heads oversee the accuracy and compliance of the posted content with regulatory standards. The Study Department is responsible for maintaining the National Educational Information System (VIIS), including academic staff data, handled by the Human Resources Officer.

Internally, communication with students occurs through channels like WhatsApp, internal emails, Moodle, and direct contact with programme directors. Externally, the college uses various platforms, including social media, its website, and traditional media outlets, to engage with a broader audience, including potential students and employers. However, it is worth noting that during a conversation between the expert group and representatives of students and graduates, it was revealed that the Moodle communication channel is not used at all.

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

Conclusions:

The RTC has developed, according to internal documents (SER, section 2.2.3), a robust, logical, and transparent programme development and review system that engages key stakeholders and ensures that programs are continually updated to meet high educational standards. However, there are some flaws in the practical implementation. Surveys for students are conducted poorly - by printing and distributing survey questionnaires to students by the programme director during classes. There is insufficient control over the quality of students' course papers and qualification papers by the RTC commissions.

The RTC management does not sufficiently use the advice and ideas for improvement from students, graduates, academic staff and employers/industry representatives. The procedures for submitting and reviewing student complaints and suggestions at RTC, as outlined in SER, section 2.2.3, appear to be formal but lack comprehensiveness, transparency, and a student-centred approach. While the institution has established a clear framework in the Procedures for Submitting and Reviewing Student Suggestions and Complaints, its actual implementation falls short. Students are not fully empowered to voice concerns or suggestions through multiple channels, such as oral, written, or electronic submissions. Although these procedures are technically accessible to all students and staff, they do not effectively reflect RTC's commitment to open communication or the continuous improvement of the learning environment. During a meeting between experts and RTC students it was revealed that student surveys were conducted inadequately. Questionnaires were printed and handed out by the programme director during class, compromising the anonymity of the respondents.

Despite the structured system for transferring students from state-funded to self-funded places,

none of the students who lost their state-funded positions expressed a willingness to continue paying for tuition at the RTC. This indicates a potential issue with the perceived value of the programmes, which could result in difficulty retaining students and forming new groups, especially if changes in state-funded policies occur.

According to the feedback from graduates, a significant portion of them lacks confidence in key practical skills. Only 70% of graduates feel competent using loading and unloading equipment, and just 50% know how to use geographical maps for work. This suggests that some aspects of the curriculum are not effectively preparing students for real-world tasks, which could impact their employability and satisfaction with the program.

Although the RTC maintains relationships with employers and offers internship opportunities, discussions with employers revealed that the practical implementation of these activities has significantly decreased over the past 2-3 years. This decline could undermine the practical relevance of the programme and weaken the institution's ties with industry, which are crucial for student training and future employment.

The RTC provides comprehensive information about its study fields and programmes through its official website, with the content primarily in Latvian to cater to local students. While internal communication is facilitated through multiple channels like WhatsApp, internal emails, and direct communication with programme directors, it was noted that the Moodle platform is not being used as intended. Despite the availability of various external and internal communication methods, there may be room for improvement in optimising these tools.

Strengths:

- 1) Comprehensive Quality Management System: RTC's quality assurance system is formally well structured and has interrelated subsystems for planning, organising and managing execution. The integration of both external (national education laws) and internal regulations ensures that the college adheres to high quality standards in education and institutional management.
- 2) One of the main strengths of the system is the partial inclusion of various stakeholders – students, employers and external experts – in the process of developing and reviewing the programmes. This ensures that the curriculum partly meets both societal needs and industrial requirements, enhancing the employability and skills of graduates. Regular feedback from students and graduates through surveys helps to continuously improve the programme.

Weaknesses:

- 1) Limited Detail on Teacher Development: While there is a process for evaluating the academic staff, the system lacks detailed information on how consistently or effectively the professional development of teachers is implemented. Without a more structured or mandated continuous training programme, there is a risk of variability in the quality of teaching.
- 2) The anonymity of students during the survey was not maintained.
- 3) Weak control over the quality of students' course papers and qualification papers over the past 6 years by the RTC commissions.
- 4) The Moodle communication channel is not used for communication between students and academic staff.

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

Improvement, development and effective activities in the field of training, while introducing an internal quality assurance system - is partially implemented (RTC SER, section 2.2.1., Report, part 1.2.1.)

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

Assessment of compliance: Partially compliant

Policies and procedures have been developed to ensure the quality of higher education. However, their implementation is flawed. (RTC SER, section 2.2.1., Report, part 1.2.1.)

- 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

There is a mechanism for the development and internal approval of the curricula of the higher education institution/college, but monitoring of their implementation and periodic review are not sufficient. (RTC SER, section 2.2.2., Report, part 1.2.2.)

- 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

The assessment of the student learning outcomes is carried out in accordance with the "Regulation on the Assessment of Learning Outcomes", which is available on Studies Regulations page of RTC web page (in Latvian). (RTC SER, section 2.2.3., Report, part 1.2.3.)

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

Assessment of compliance: Partially compliant

The existing process for evaluating the teaching staff is not sufficient. (Report, part 1.2.1.)

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

Assessment of compliance: Partially compliant

Ongoing monitoring of student feedback mechanisms and implementation require significant improvement. (RTC SER, section 2.2.4., Report, part 1.2.4.)

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

Assessment of compliance: Partially compliant

The practical implementation of these activities has significantly decreased over the past 2-3 years (Report, part 1.2.4.)

1.3. Resources and Provision of the Study Field

Analysis

1.3.1. The SER (p. 41-42) lists the main financial sources for RTC as following:

- a) State budget subsidy from general revenues for the provision of studies;
- b) Financial resources allocated by the Ministry of Education and Science of the Republic of Latvia for the development of scientific activities, which are granted for the results of research-based higher education (performance-based funding)
- c) Income from paid services and other RTC income
- d) Projects funded by European Union organisations and other international organisations (Erasmus+).

The above sources of income represent and include the necessities of running a study programme. Scientific research is funded as mentioned above by resources allocated by the Ministry of Education and Science and through Erasmus+ projects. Scientific research is successfully supported by the RTC, when there is a need for it.

Regarding possible additional financial resources SER (p. 43) states: "Attracting more fee-paying students would allow additional funds to be allocated to the "fixed assets" cost line and to research." However the RTC has not demonstrated a clear strategy on how to attract more students, leading to a situation where even the allocated budget study places are left vacant despite a clear motivation of the RTC management to secure even more budget allocations.

1.3.2. Programme "Telematics and Logistics" currently takes place in one location – Braslas Street 16, Riga. Until academic year 2020/2021 there was also another branch – Priekule Technical College – where the study programme was implemented. In Riga, each classroom has a projector and a computer for the lecturer. The RTC has participated in a project called "Reducing the digital gap in socially vulnerable groups and education in institutions" in order to secure computer equipment and since 2018, a computer classroom in room 419 has been set up for the "Telematics and Logistics" programme. In addition, for the academic year 2023/2024, 25 computers equipped with relevant logistics software have been installed in room 363 (SER p. 43).

The SER (p. 43) also lists the following software products installed on these computers that are available to students:

- i) Tildes Birojs 2016 on 16 computers.
- ii) Simulation equipment - logistics software licence "JS Baltija 3.5 Pro Logistics" for acquisition of skills in the transport and logistics sector for non-commercial educational purposes, provided for use by the National Centre for Educational Content within the framework of the ESF co-financed project "Development of the Sectoral Qualification System for the Development and Quality Assurance of Vocational Education Project No. 8.5.2.0/16/I/001".
- iii) 3 sets of simulation equipment - "Beer Distribution Game" type supply chain simulation board game for training purposes in the transport and logistics sector.

As further analysed in Section 2.2.1., in general the RTC lacks digital IT tools that could be used in planning and analysing various transport processes. For the practical part of the "Telematics and Logistics" programme, the RTC has set up a logistics workshop. The material provision there consists of various types of equipment used in warehousing and land transport (as it emerged from various meetings with the staff, the focus of the studies is on land transport and the students are only given a basic introduction to, for example, water or air logistics).

As described in the SER (p. 43) "the task of the academic staff is to ensure the quality of teaching of the theoretical and practical part of the relevant study courses at their workplaces" and material provision is updated when a member from the teaching staff makes a request. During the meeting with the study programme director it was confirmed that lecturers have this opportunity during the monthly meetings.

1.3.3. As stated in the SER (p. 44), the library is a structural unit of the RTC and provides 31 workstations, 6 computers, a multi-functional device that is a combined printer, copier, also there is free access to wireless internet connection. Since 2016 the RTC library has been included in the unified state library information system called SKOLU ALISE. The library is open on workdays from 8.00 to 17.00, one day a week until 18.30, thus it is accessible for students. Electronic resources available to students include the e-newspaper "Izglītība un Kultūra", the e-journal "Skolas Psihologija" and three databases: letonika.lv, soma.lv and EBSCO. During the on-site visit the expert group noticed that the library lacks industry-specific literature regarding logistics, granting the opportunity of reviewing basics of logistics, but not in depth analysis of, for example, railway logistics.

Library fund is updated upon a request made by a member of the academic staff. During the on-site visit the expert group noticed that the library lacks industry-specific literature in printed form regarding logistics, granting the opportunity of reviewing basics of logistics, but not in depth analysis of, for example, railway logistics. Although students nowadays use a lot of electronic resources, paperback books are still used and not a thing of the past. Thus the collection of printed resources should be improved, unless RTC has an agenda to develop a plan on how to eliminate paper based titles completely and use only electronic sources.

1.3.4. The study programme is implemented on-site. As confirmed during the meetings with students and the teaching staff, remote lessons take place only in special occasions.

The RTC uses electronic environment Moodle, where study materials and requirements for study courses can be found (SER p. 45). During the on-site visit expert group observed that the amount of information that can be found on Moodle varies depending on the specific subject and the lecturer. Some of the course pages on Moodle lacked course descriptions, list of materials and information about tasks and tests or other forms of grading.

During the meeting with students they mentioned that they would like to see the Moodle system improved, as some lecturers use it, however some do not, thus information about assignments, materials and deadlines has to be gathered from various sources. Judging from the gained information from graduates, the Moodle system has been implemented on a more successful level only relatively recently, as graduates of 2021 and 2022 didn't recall using it at all or remembers Moodle as difficult to navigate. Also on Moodle students can find necessary information and documents for the internship. In addition some documents that are important for the student study process can be found on the RTC website. For example, "Methodological instructions for the development and design of course work" (available only in Latvian: <https://www.rtk.lv/lv/studentiem/eksameni-un-ieskaites/>) and "Methodological instructions for the development and design of qualification work" (available only in Latvian: <https://www.rtk.lv/usr/kol/absolv/1636388059.pdf>).

1.3.5. The RTC has developed a procedure for attracting the teaching staff. The possible academic positions, qualification requirements, tasks and election procedure of the academic staff is regulated by "Regulations on Elections to Academic Positions" and can be at https://www.rtk.lv/usr/dok/regulations_on_elections_to_academic_positions.pdf.

The vacant academic staff positions are announced by creating a publication in the newspaper "Latvijas Vēstnesis" and also advertised on the RTC website (<https://www.rtk.lv/lv/par-mums/vakance>, SER p. 46).

1.3.6. The professional development of the lecturers is supervised by the RTC personnel Unit (SER p.47). Annex titled "2_3_6_8Procedure for the annual assessment of teachers - EN" provides the procedure for the annual assessment of teachers' work quality. At the end of each academic year each member of the teaching staff must submit a self-assessment of their work. Then the study field

director evaluates the lecturer's work using information from the self-assessment, students surveys and observations and evaluations of classes, afterwards the study field director submits the evaluation to the Head of the Study Department in order to communicate the results publicly in the meeting of the Department. Although the procedure is well designed, the SER lacks an assessment of its efficiency and results, thus making it difficult to gauge its productivity.

Information provided in the SER (p. 46-47) does not entail an assessment of the effectiveness of professional development courses or opportunities provided to the lecturers nor does it include examples of these specific opportunities undertaken by the academic staff, only mentioning that academic staff of the College must participate in "professional improvement programmes regarding innovations in the higher education system, didactic of institutions of higher education or management of educational work in the amount of 160 academic hours (including at least 60 contact hours)" (as regulated by the Cabinet of Ministers No. 569 "Regulations regarding Education necessary for teachers and procedures for improvement of Professional competence of teachers" 16. point) (SER p. 47).

During the meeting with the management it was specified that the professional development opportunities can be divided into three sections: pedagogical courses, sectoral and external, as some cooperation partners also provide opportunities for the teaching staff to improve various skills. An example of a specific training, according to the study field director, is the training on the use of the electronic environment Moodle. However as evaluated in criterion 1.3.4. this has not guaranteed a successful systematic usage of Moodle.

1.3.7. Although lecturers are required by tenure guidelines to engage in scientific activities and produce publications, scientific research is not explicitly defined as part of their workload and is instead conducted at the lecturers' own initiative. Judging from the responses of teaching staff, they feel that their workload is balanced and that they have appropriate time to undertake research projects and attend conferences (these were examples given by teaching staff when asked about their recent activities in this regard).

1.3.8. The SER (p. 50) states that "all teachers provide support to students in the study process, but the director of the study program manages it". Students themselves describe the personnel as responsive. One student mentioned that they turn to the lecturer, if any problems arise, however if the problem is bigger then they turn to study director or Deputy director for Studies and Education. Also, although students usually find work placements themselves, during the meeting one of the students mentioned that a member of staff had helped two students find internship opportunities. The RTC also provides a career consultant that can advise on the specifics of choosing a profession. During the meeting, the Head of Communication and Career Centre informed the expert group that career counselling service is rarely demanded, as a lot of students already have a specific field in mind and finding an internship place is not hard.

As the study programme is implemented on-site full-time only in Latvian, a specific support system for students from abroad or part-time students is not necessary. The main building of the college features an elevator and a wheelchair lift, allowing access to students and staff with disabilities. However a smaller building that is used for practical lessons is not accessible, as it lacks a lift or a ramp in places where there are stairs.

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

Conclusions:

In general the RTC has sufficient financial funds and material and technical provision in order to implement the study programme, However the material provision should be critically evaluated and updated regularly, as a lot of resources in printed form provide only the basic knowledge of logistics

or are focused only on land transport. The RTC has got a modern infrastructure that facilitates the needs of students.

Strengths:

1) Staff is responsive to students' needs.

Weaknesses:

1) Lack of systematic usage of the Moodle system by the teaching staff.

2) Although the teaching staff self-assessment procedure is well designed, assessment of its effectiveness is lacking, thus making it hard to understand its results.

3) Material and technical provision is becoming obsolete.

1.4. Scientific Research and Artistic Creation

Analysis

1.4.1. In the RTC strategic action plan, strategic actions, their results, performance indicators and deadlines have been foreseen for the years 2021-2027 (annex 30.2. RTK Strategy-EN.docx). Some of the indicators have already been implemented, others are still in the implementation process. This allows the expert group to say that the RTC has a systematic approach to the strategic actions of the college, for the achievement of which 5 main goals have been set. RTC's strategic action plan states that "The main goal of RTC's scientific research and innovation is to contribute to the competitiveness of RTC and its study programs, to achieve the study results provided for in scientific research and innovation programs, by promoting the implementation of research-based studies, developing scientific research competences and results." academic staff and students, especially in the field of applied research and innovation, as well as developing cooperation with employers and other interested parties." During the conversation of experts with the RTC students, graduates and employers (09/25/2024) it was found that the students participate in scientific activities minimally (only when performing relevant tasks during coursework and diploma works), and employers do not initiate any research/scientific activities.

The purpose of RTC scientific research and innovation is to promote the competitiveness of RTC and its study programmes, in order to achieve the study results set in the programmes in the field of research and creativity, during the expert visit it was found that this is mostly done by teachers, conducting research and their publishing the results, disseminating them at conferences, and integrating them into the taught study subjects at the level.

According to the SER and the RTC Strategic Action Plan 2021-2027, it can be said that the priorities of the research and innovation strategy have been determined, taking into account the needs and interests of stakeholders. However, the expert group finds the plan/RTC failing to address the following:

a) The strengthening of research and innovation capacities is not clearly defined as a mechanism that would have clear criteria with clear functions and responsibilities;

b) The development of scientific research and creativity of teachers and students, mainly manifested through coursework and final works, as well as the scientific activity of teachers connected with the publication of articles and participation in conferences;

c) Cooperation with external stakeholders in the field of research and innovation is manifested through relations with employers, other higher education institutions, but it is not clear on what basis of obligations.

Given that close connection between the study process and ongoing scientific research activities is an essential prerequisite for high-level training of specialists, development of competence and RTC international cooperation is critical. Although both teachers and students participate in research, but the participation of students in this programme in research activities is not sufficient.

The Law on Scientific Activities (in force since 2005-05-19) stipulates that the duty of the College is to carry out scientific activities and to ensure the study process, in which students' scientific research activities and/or artistic creativity would be an integral part. From the documents submitted for self-analysis and conversations with administration representatives, it can be seen that „The RTC has developed a “Strategy for the Development of Scientific Research and Innovation 2021-2027” (07.06.2022. No 1.1-2/8 - RTC). This can be seen in Annexes 51.1-LV and 51.2-EN)”, the directions of activities have been planned, but some of them are still not fully implemented or in the implementation stage. Despite this, it can be said that the purpose of RTC research and creation is in line with the goals of the college and the field of study and is relevant to the field of study and industry, but there are aspects that need to be improved.

1.4.2. The RTC has set out 7 guidelines for research and creativity development for academic staff and students (RTC Guidelines for Research and Creativity Development for Academic Staff and Students). When evaluating their compliance with the study process, the following aspects should be noted:

Guideline #1: Teachers and students have the right to freely choose the topics, directions and methods of scientific research and creation, evaluating and publishing the results of their research and creation. This is manifested as a result, in the form of coursework and theses, as well as in the publications of teachers and participation in congresses.

Comment #1: Taking into account the choice of research directions of the teachers, a number of teachers participated in conferences with reports that are dedicated to the topics of "Higher vocational education" ("Higher vocational education in theory and practice"), but this does not reflect the field of demand for logistics/transportation professional/specific specialised knowledge of the evaluated program.

Guideline #2: RTC aims to develop research-based studies, facilitating the integration of teachers' research results into the content of study courses and the application of research methods in the study process, thereby developing students' competencies.

Comment #2: The teachers integrate the results of the conducted research into the taught subjects as examples of good practice.

Guideline #3: RTC provides institutional and financial support for research and creativity of academic staff and students in accordance with the directions of research and scientific activity approved by the RTC Council and the annual program of research and creativity.

Comment #3: If there is a need, the RTC supports the research of academic staff and students.

Guideline #4: RTC supports the publication of research and creative results of academic staff and students in conferences, articles, dissertations, monographs, reports, etc., and promotes their commercialization.

Comment #4: If there is a need, the RTC supports the research of academic staff and students. Also, once a year, an exhibition of coursework, independent work and qualification work must be done for all RTC study programs, where all teachers and students can familiarise themselves with the work being prepared.

Guideline #5: RTC contributes to the professional competence of academic staff and students through research, e.g. acquiring research methods, processing data, publishing research results.

Comment #5: During the assessment, it was not possible to identify the mechanism of practical application of this point, apart from the fact that during the interview with the teachers it was determined that RTC contributes, if necessary, but did not specify how this is done specifically.

Guideline #6: To promote research results and creativity, RTC organizes an annual international scientific conference "Student Research Activities: Theory and Practice".

Comment #6: The SER states that the authors of the articles are doctors, doctoral students, masters and RTK graduates of Latvian and foreign universities. However, during the interviews with RTC college students and graduates, it was not possible to identify their participation in the mentioned conference.

Guideline #7: Priority performance indicators are defined as follows:

i) the number of scientific research/artistic creation results of the selected academic staff during the four academic years: 2 artistic creation achievements for each teacher;

Comment #7i: A list of 97 publications was submitted for evaluation (source "Pielikums_2_4_4_2_PUBLIKĀCIJAS LOGISTIKAS ENG"), of which: 10 publications are directly related to the specialty and specifics of the evaluated program, the rest of the publications are related to general subjects (economics, management, law, educology, languages, programming etc.). It should also be noted that: 1) out of 97 submitted publications, 29 publications are from the last years 2019-2024, of which 1 is related to logistics; 2) out of 10 publications dealing with logistics issues: 1 is from 2024, 3 from 2016, 2 from 2014, 1 from 2013 and 3 from 2012.

ii) number of presentations by selected academic staff at international scientific conferences during four academic years: 1 for each lecturer;

Comment #7ii: From the submitted "2_4_4_1pielikums_skaits_konferences_projektos" document, a total of 146 scientific conferences or seminars were participated in during the evaluation period 2013-2023, and 42 scientific conferences or seminars during the last year 2019-2023.

iii) student participation in scientific and creative projects - 100%, in student conferences - 40% of the total number of students in the study programme;

Comment #7iii: It is not clearly stated whether they should be as participants giving presentations at conferences or as listeners. Besides, the students of the evaluated study programme did not participate in this activity during the evaluation period, this is substantiated by the statement in the self-analysis report ("Telematics and logistics" students did not participate in applied research during the reporting period), and students and graduates participated in the evaluation process.

iv) methodical events for increasing the professional competence of students and academic staff in conducting research and creativity: two events per academic year.

Comment #7iv: Once a year, an exhibition of coursework, independent work and qualification work must be done for all RTC study programmes, where all teachers and students can familiarise themselves with the work being prepared. The annual international scientific conference "Student Research Activities: Theory and Practice" organised by RTC is also attributed. It should be noted that the Self-Analysis report states that "Students' science-practical conferences have already become a tradition, with students, doctors and employers participating in the study programs "information technologies" and "Electrical equipment", but it is not clear how this relates specifically to study programme under consideration.

Students of the evaluated study program participated in only 2 trainings (which took place in 2015) related to the specialty (information from "2_4_4_1pielikums_skaits_konferences_projektos ENG"), which is not sufficient. Also, in the aforementioned appendix, it was noted that during the reporting period the RTC organises International Scientific and Practical Conferences "Higher Professional Science" and invites students of the "Telematics and Logistics" study program to them (it should be noted that these conferences are more focused on generalised RTC opinions of academic staff and other Latvian higher education institutions, as well as educational institutions and employers in

other countries regarding the prospects for the implementation of study programs, as well as research on the role of a college graduate in the labour market, but does not reflect theoretical/practical knowledge directly related to the specific knowledge of the evaluated program).

In summary, it can be said that the connection of scientific/applied research with the study process is logical and reasonable, more so at the level of general subjects, but insufficient at the level of specialised subjects.

1.4.3. The main goal of RTC research and innovation is to contribute to the competitiveness of RTC and its study programmes, to achieve the study results provided for in the research and innovation programmes, to promote the implementation of research-based studies, to develop the research competences and results of academic staff and students, especially applied research and innovation in the field, developing cooperation with employers and other interested parties. These results can only be achieved and implemented if there is close cooperation between the interested parties, both at the local and international level.

Taking into account the requirements and interests of the stakeholders, RTC has identified research and innovation strategy priorities (strengthening of research and innovation capacity; development of faculty and student research and innovation capacity; cooperation with external stakeholders in the field of research and innovation.), but a clear not named/communicated as to how this is done. The fact that international cooperation is not widely developed was confirmed during the interview with students and graduates - students do not go on Erasmus exchange due to work and other personal matters, because it requires a long time away (if it were shorter trips, students would think about it more). Only one of the graduates who took part in the interview mentioned that he had done his internship in Malta. From the lecturers, the main message was that international cooperation is ensured through Erasmus+ exchange, thus going to another country, visiting companies, making contacts, etc. (e.g. Poland was mentioned during the conversation with the teachers). Lecturers, write publications, participate in scientific/scientific practical local and international conferences.

Given that the close connection between the study process and scientific research activities is a necessary prerequisite for high-level training of specialists, development of competence, as well as international RTC cooperation, both teachers and students must participate in scientific research. However, specific facts are not provided, and by default it is about the possibility of doing internships abroad, as well as coursework and diploma work (but this group of work is more focused on the Latvian market than international cooperation).

In summary, it can be said that international cooperation in the field of scientific research and/or applied research within the field of study and the relevant study programmes is slowly ensured and little developed.

1.4.4. According to the internal regulatory document "Regulations of Academic Positions" (2004-12-08, No. 01-05-209-RTK) (see Appendix 2.4.4.4.), the requirement for teachers to be elected to the academic position of docent or the teacher must prepare publications or teaching aids related to the scientific discipline every three years. Also in the document "RĪGAS TEHNISKĀ KOLEDŽAS (RTK) GALVENIE UZDEVUMI ZINĀTNISKĀS PĒTNIECĪBAS UN JAUNRADES ATTĪSTĪBAS STRATĒĢIJAS 2024.- 2027. ĪSTENOŠANAI" (see Appendix 2.4.1. zināt.petn. (Latvian language) or 2.4.2. eng "THE MAIN TASKS OF THE TECHNICAL COLLEGE OF RIGA (RTK) ARE THE SCIENTIFIC RESEARCH AND INNOVATION DEVELOPMENT STRATEGY 2024-2027. FOR IMPLEMENTATION") are named 10 points related to the main challenges/priorities of the research capacity development strategy. These documents list the requirements for academic staff.

For the self-assessment, the submitted documents state that:

- a) Teachers actively participate in courses and seminars on the latest teaching and pedagogic methods, and attendance at seminars and exhibitions organised by employers is also encouraged.
- b) Since 2003 RTC has organised international scientific and practical conferences "Higher professional education in theory and practice" and publishes volumes of scientific articles.

In addition, the RTC Strategy envisages 2 complex strategic activities aimed at strengthening scientific work and scientific orientation:

- i) ensure that all full-time teaching staff participate in scientific activities, creation of innovative projects, preparation of students for competitions, skills development, etc.;
- ii) to increase the involvement of pedagogues in the development and updating of textbooks, study and teaching tools and learning tools necessary to ensure the study process (by 2027, at least half of teachers must be involved in this activity).

Clear and ambitious goals and objectives have been set, but their functioning does not produce clear strategic results, which can be attributed to the fact that there is no clear incentive mechanism. The lecturer knows that at the beginning of the academic year he has to plan activities for the year, he knows his tenure obligations from a scientific point of view, and he also knows that he will be financially encouraged once a year for the academic production he has completed. There is a lack of clarity, regarding teachers, what kind of encouragement would be, for example, if publication in SCOPUS and WOS quoted journals, if several high-level publications, monographs, etc. were prepared.

In summary, it can be said that the RTC has created mechanisms for the involvement of teachers in research and/or applied research, but they are quite abstract and more focused on annual activity plans and tenure obligations of the teacher. They are operational, but not so effective as to encourage teachers to carry out more scientific activities than they are entitled to according to term obligations and annual activity plans.

1.4.5. Every year, for all RTC study programmes, an exhibition of coursework, independent research papers, and qualification papers is organised, where all teachers and students can get acquainted with the prepared papers. Since 2003, the RTC has been organising the international scientific and practical conference "Higher professional science in theory and practice" and publishes scientific reports.

In the documents submitted for evaluation and interviews with teachers, regarding the involvement of students in scientific research, it was emphasised that RTC students perform well in tasks that need to be remembered or act in familiar situations, teachers force students to dig deeper and process various data, requiring students to solve low-quality situations, create relationships between theoretically learned and real life experiences, analyse achievements and set goals for future jobs. Taking into account the documents submitted for self-analysis and the conversation with students and graduates during the meeting, it was found that there is no (or they do not know) a clear mechanism that motivates students to participate in scientific/research activities, apart from the performance of specific tasks/possible research or analysis in coursework and diploma theses, which required to pay for said item.

1.4.6. The organisation of the RTC study process is based on the development of competences, the changes created by the digital age in the lifestyle, identity, and behaviour of the new generation, as well as the different perceptions of students about the value of education and the ways of its acquisition. In order for the study process to be purposeful and satisfy both students and teachers, it is important to understand and take into account the characteristic features of the new generation and apply innovative solutions so that the study process meets modern market requirements and future specialists are better prepared to adapt to the labour market. Due to the Covid-19 pandemic,

in 2020, the Big Blue Button (BBB) video conferencing system was integrated into the Moodle platform for providing remote classes, consultations, and tests. A personal virtual video audience was created for each teacher. Teachers also use other tools in their study courses: for example, the online program for organising video conferences Zoom, Google Team, the collaboration program Microsoft Teams. Instructors post lesson recordings of individual study courses on the video-sharing online social networking site YouTube.com. These are innovations that were implemented and used in the study process during the pandemic, and are still being used and developed now. This could be identified as an advantage, but as the market develops and develops rapidly, new innovative mechanisms are needed to ensure the modern training of specialists that meet the market's needs. During the interview with the teachers, it was established that one of the innovative solutions of these times is the use of artificial intelligence for the analysis of practical situations, but this tool is only applied in the lectures of individual teachers.

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

Conclusions:

In its strategy, the RTC envisages the active involvement of teachers and students in educational and research activities at the local and international level, as well as its support and financing, however the strategy may be considered to have been implemented in practice only partially given the following:

- a) The teachers, according to the possibilities and workload, aim to ensure the creation and publication of scientific production and the raising of their competences. However, most of the publications submitted for evaluation are focused on general studies subjects, there is a lack of publications on transport and logistics topics.
- b) Students are only involved in academic and research activities at the level of coursework and theses. From the SER, it was determined that "Telematics and logistics" students did not participate in applied research during the reporting period.

Taking into account the main 6 evaluation criteria of Scientific Research and Artistic Creation, the following conclusions can be drawn:

- i) According to the information of the programme submitted for evaluation, the purpose of RTC research and development meets the goals of the College and the field of study and is relevant to the field of study and industry, but there are aspects that must be improved.
- ii) The connection of scientific/applied research with the study process is logical and reasonable, more at the level of general subjects, but insufficient at the level of specialised subjects. Research is conducted and its results are integrated into the study process, but this is usually done in general subjects.
- iii) International cooperation in the field of scientific research and/or applied research in the field of study and relevant study programs is insufficient.
- iv) The RTC have developed mechanisms for involving teachers in scientific and/or applied research, but they are rather abstract and more focused on the duties of the teachers and their annual activity plans. This mechanism works, but not so effectively as to encourage lecturers to carry out more scientific activities than they are entitled to according to their tenure obligations and annual activity plans, and to respond to the specifics of the specialty of the analysed programme.
- v) There is no clear mechanism for student involvement/motivation in scientific/research activities, apart from the fact that students perform compulsory research during coursework and diploma theses, which allow to delve into only a narrow problem in a specific company, and allow to receive an assessment for a specific subject of study.
- vi) With the rapid development of the market, new innovative mechanisms are needed to ensure the modern training of specialists that meets the needs of the market. Therefore, applying innovative

solutions during the COVID-19 pandemic is no longer a novelty, but during the evaluation it was found that one of the innovative solutions is the use of artificial intelligence for the analysis of practical situations, but this tool is only applied in the lectures of individual teachers.

Strengths:

- 1) Teachers prepare academic publications, several of which are referenced in SCOPUS databases.
- 2) Lecturers participate in conferences and internships under the Erasmus+ exchange program.
- 3) Teachers are encouraged once a year for their research activities and publications.

Weaknesses:

- 1) The created motivation mechanism for teachers is not sufficient for the purpose of involvement in scientific and research activities.
- 2) Not enough publications on transport/logistics issues are prepared.
- 3) The created student motivation mechanism is not sufficient for engaging in scientific and research activities.
- 4) Innovative methods are associated with innovations implemented during the COVID-19 pandemic, and currently with the application of artificial intelligence in individual study subjects.

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: Partially compliant

This point is assessed as partially implemented, since 66.67 percent of the 6 evaluation points are incompletely implemented:

1. The purpose of RTC research and creation is in line with the goals of the college and the field of study and is relevant to the study field and industry, but there are aspects that need to be improved.
2. The conducted research and its results are integrated into the study process, but this is mostly done in general subjects.
3. Insufficient cooperation at the international level in educational/research activities.
4. The insufficient mechanism for involving/motivating teachers in scientific/research activities is only a single incentive system, but it does not represent the whole clear mechanism.
5. Insufficient mechanism for involving/motivating students in scientific/research activities, apart from the fact that students do conditional research during coursework and diploma theses, which allow to delve deeper only into a narrow problem in a specific company.
6. Today, only one of the innovative tools - artificial intelligence - is applied, and that only in individual study subjects.

1.5. Cooperation and Internationalisation

Analysis

1.5.1. The SER indicated that cooperation with the industry takes place in several ways: guest lectures, study tours (ex. "DSV Latvia", MAXIMA in 2024) and internships. The RTC cooperates with employers and engages in employers' organisations (the Latvian Logistics Association and Latvian Packaging Certification Centre) within the field of study. Such cooperation contributes to the achievement of the goals and study results of the field of study and relevant study programs. Companies where students do internships are listed in the SER (Table 2.5.1.1., p. 54 - LV, p. 60 - ENG). It is also stated that the "Transport services" study program "Telematics and logistics"

cooperates not only with logistics or transport, but also with companies with production, trade, etc. Appendix 2.5.1.1. shows that 4 contracts have been concluded with employers - industry companies and 5 educational institutions, incl. the Latvia University of Life Sciences and Technologies (LBTU). However, it must be concluded that LBTU does not have an appropriate study programme at the specific level to which the student could transfer if necessary. Therefore, this contract is only legally binding, but not practically.

In Appendix 2.1.2.1. "Development plan for the field of study "Transport services" it is indicated that every year the RTC is expected to strengthen its cooperation with employers by updating study course descriptions. However, during the visit, the experts were not convinced that this is the case when talking with the employers. It should also be noted that in the experts' discussion with the employers, company representatives did not know what practical tasks the students had during the internship. Therefore, interns do the work that the company needs. On the other hand, in the conversation between the experts and the students, the students said that there are some who understood everything during the internship, while some had to do work that is not related to the profession they are learning.

In the SER, another good practice is also described focused on motivating students and promoting their understanding of variety of logistics specialist job opportunities. Every spring students are thus offered to explore the offers of the "Prakse.lv" portal and apply for consultations, career days and other events in companies and institutions, as well as apply for a job interview to obtain internship program (2.5.1. LV-57, ENG-63).

1.5.2. It should be emphasised that the RTC may be considered as to have established good international cooperation (SER 2.5.2., LV-59, ENG-65). However, for the field of study Transport Services, these international liaisons may equally be considered weak.

In the Latvian language version of Section 2.5.2. of the SER, the RTC states that it has an internationalisation strategy, which is in Annexes 2.5.2.1. and 2.5.2.2 (p. 58). However, it is not reflected in the English version (p. 65). In the RTC strategic development document (RTK Strategy-EN.docx) it has been defined that "...RTC's international cooperation is focused on the overall development, modernisation of the educational institution, raising training standards according to the latest achievements in the field of European professional education, international cooperation, as well as academic and student mobility. Active and successful participation in international programs and projects is considered an important part of RTC's development concept. The important goals of RTC's European mobility and cooperation are to motivate and stimulate students and staff to gain international experience in the field of study or work, to improve the professional and personal competences of participants in international projects and activities, to promote the development and modernization of RTC, to create and improve cooperation with EU VET, colleges, universities and companies to update the content of study programs and integrate technological and methodological innovations into the study process. Participation in Erasmus+ and European Structural Funds projects is a fundamental tool for solving RTC's current development issues and achieving goals". However, the experts have not found evidence that this type of international cooperation takes place within the field of study "Transport services".

1.5.3. In the appendix 2.5.3.1. statistical data on the outgoing and incoming mobility of students (indicating study programmes) showing only one international student exchange to have taken place so far (one student travelling to Malta for 2-month internship purposes). Although the expert group welcomes such examples of student internships abroad, it should be noted that, in the SER, the given Maltese experience has rather tendentiously been portrayed as a token of RTC's international cooperation affirmation, especially given that in the following years such an internship practice has been rather modest (in 2023/2024 one outgoing mobility example, and in 2020-2023 none due to COVID-19).

Unfortunately, the rather weak international cooperation has also been confirmed in the discussions the expert group had with teaching staff and students. Similar practice has been demonstrated in mobility of the teaching staff. In Appendix 2.5.3.3. "Statistical data on the incoming and outgoing mobility of teaching staff", it may therefore be seen that in 2023/2024 there were no activities, in 2022/2023 there were only two foreign guest lecturers and two visits by exchange teaching staff (Kauno technikos kolegija, Lietuva).

It should be emphasised that although the SER (LV - 60, ENG - 67) states that inter-institutional cooperation agreements have been concluded with the educational institutions of Lithuania, Estonia, Finland, Sweden and Denmark, practical realisation of this cooperation is rather weak.

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

Conclusions:

The RTC has developed a unified internationalisation strategy, however, it is implemented very poorly in the study field Transport services. In the context of Latvia, cooperation with entrepreneurs and other educational institutions can be assessed as average, because in expert discussions with employers, no one was ready to pay for student studies (if there was no budget space) and in none of the companies. The students present at the interviews continue to work even after the mandatory internship. In addition, all the students who participated in the conversations with experts said that they came to study in this programme because they do not have to pay for their studies themselves, classes are held 3 times a week on weekday evenings, and some do not intend to work in this industry after graduation.

Strengths:

1) RTC has developed a strategy both - for cooperation with the industry and institutions, and for international cooperation.

Weaknesses:

- 1) In fact, there is no cooperation at the international level, neither for the students nor for the teaching staff involved in the programme.
- 2) There are no projects that are implemented in the field of transport and logistics in cooperation with industry companies.

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

Cooperation is partially ensured in Latvia, but at the international level it can be assessed as low.

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

Analysis

1.6.1. In the previous evaluation procedure, which took place in 2013, in total 11 recommendations have been given, of which 9 long-term and 2 short-term. According to the document entitled "Pielikums_2_6_1_1_Rekomendaciju ieviesanas tabula_logistika 10.jūlijs ENG" listing all the

recommendations given, the level which they have been implemented to may be summarised as follows:

Short-Term recommendations

- a) The recommended name change and change of the study course content have been only partially met given that the RTC has replaced the study course "Transaction Mathematics" with the study course "Business Mathematics" but – given the course descriptions provided in the "Pielikums_3_2_1_7_Study_courses_catalogue_EN_UPD (2).pdf" document – has failed to replace the study courses "French Language" and "Russian Language" with separate "Fundamentals of Air Cargo Transportation" and "Passenger Transport Organizing" study courses respectively. Instead, the issues pertinent to air cargo and passenger transport have been addressed in a single study course entitled "Transport organising and processing of cargo".
- b) The recommended partition of the study course "Applied English" may be deemed as completed providing the recommendation corresponds to the study course nowadays called "Business English".
- c) The recommended change in grading the student achievement in "Business Economics and Analysis" study course has been implemented and the assessment process now includes both exam grading and coursework.
- d) The recommended change in evaluating student's achievements in the "Transport Telematics" study course has not been implemented given that in the course description it still remains that a non-graded test is utilised as the only means of examination.

Long-term recommendations:

Even though all but one – namely the "Strengthen the English language components of the program, moving towards offering some professional courses in English" recommendation – have formally been implemented, many of them utilise operational realisation practice which may hardly be deemed pertinent and contributing to the overall objective of making the study programme better. Thus, for instance, in elaborating the fulfilment of the "Institutional library needs much more resources to offer up-to-date services to the college", the RTC outlines that "both libraries and Moodle's internal library Exabis study literature repository have been updated" and that "the college has its own Moodle site for study materials, where teaching staff add various lecture materials, lecture notes, assignments, etc.". However, as already commented in Section 1.3.3, during the site visit, the expert group has witnessed that the Moodle library has featured extremely scarce teaching materials whereas the College library had almost no transport telematics/logistics titles at all. The interviewed teachers and RTC management did offer some reasoning explaining that the former (Moodle library) gets populated on-the-fly, in parallel with the teaching process, nevertheless, the expert group still maintains such a practice of limiting the teaching materials to the Power Point presentations of the most recent lectures rather questionable.

In addition to the limited success in improving rather poor bibliographic resources, the RTC has also demonstrated arguable practice in addressing the recommendation for better employer's involvement. Even though employers do participate in the realisation of the programme through guest lecturing, formal or informal consultations, final work examinations or other such capacities, the RTC has failed to exploit their undisputedly strong understanding of the current and future market needs in streamlining the business and technology niches which the RTC would like to excel in. As already commented in Section 1.1, the RTC has failed to present tangible proofs of mechanisms for continuous market trends monitoring to have been implemented in a proper and systematic manner. Instead, employers are often asked for their feedback on mere generic "what-can-we-do-better"-like inquiries without going into much depth in proactively addressing important issues such as "what would be the RTC's target area of expertise", "who are the key competitors" or "what are the must-have practical experience of a graduated student 5 years from now". As a result,

feedback gained from different stakeholder groups are seldom streamlined even on the least challenging strategic goals. Thus, for instance, when asked on whether they would prefer their newly employed graduates to be more skillful and knowledgeable in certain narrower subjects/technologies/SW tools, or they would rather have them educated more generically, the feedback from the interviewed employers was completely opposite than the feedback received from the study programme/field management.

Finally, the recommendation formalised as “Strengthen the English components of the programme by moving towards offering some professional courses in English” was declined by the RTC justifying such action by reasoning that English courses would not benefit the study programme given that the RTC educates domestic students only. The expert group finds such reasoning disputable, especially if taken into account that any logistics business of today is operated in a global context and good command of English should be seen as a must-have capacity of any logistics specialist.

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

Conclusions:

Most of the recommendations given in the previous assessment procedure have been implemented. However, some of them have only been implemented formally and are hence unlikely to generate substantial improvements. Example of such an approach is the recommended better employer’s involvement which yielded certain new practices in monitoring the needs of the economy but they may hardly be seen as a proper and systematic way of market trend identification and monitoring.

Strengths:

1) The RTC has clearly demonstrated a great deal of dedication in addressing the issues outlined in the given recommendations.

Weaknesses:

1) Although some of the recommendations may be found vague and hence difficult to be assessed with respect to the effects generated upon their implementation (eg. the recommendation formalised as “Expand the implementation of learning outcomes”), the expert group still considers the focus was more on the formal implementation of the recommendations rather than on generating concrete tangible outputs benefiting both the study field and the programme itself.

2) Declined implementation of the recommendation to introduce new English-held courses.

Assessment of the requirement [4]

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

Assessment of compliance: Partially compliant

Declined recommendation to introduce new English-held courses.

Formal introduction of recommendations only, without going into much details on the effects generated.

Questionable justification for the recommendation targeting library resources.

1.7. Recommendations for the Study Field

Short-term recommendations

- 1) In close collaboration with the industry partners kick-off a process of streamlining RTC's key strategic development goals. Make sure the goals reflect the expected (future) needs of the national economy, not merely the current ones. Identify key competitors and the addressable "academic market" according to which formalise RTC's key competitive advantages. Define how "special" the future RTC graduated logistic specialist is needed to be.
- 2) Communicate the goals to all the stakeholders in a sound and systematic manner. Make sure all of them understand the vision of the future RTC. Make sure the entire RTC management (incl. study field/programme directors) is familiar with the financial background of running the study field/programme.
- 3) Run targeted public awareness campaigns and communicate RTC's strongholds given that both graduated students and employers interviewed have suggested RTC could work on improving its public image of a higher education institution educating poorly capacitated specialists only.
- 4) In seeking for new industry partners, target cutting-edge technology providers and try including their solutions into the curriculum. Utilise/negotiate innovative licensing options.
- 5) Improve the process of annual evaluation of the teaching staff for pedagogical, organisational and scientific activities, with the formation of an annual development plan for each teacher.
- 6) The teachers working in the program must focus their scientific activities and their published results on the specifics of the specialty of this program.
- 7) Students of the program must be motivated and participate in various projects, conferences and other scientific activities that reflect the characteristics of their future specialty.
- 8) Replace the possibility of a final assessment (passed / failed) in all subjects with an assessment on a 10-point scale.
- 9) Strengthen control over the quality of students' course papers and qualification papers by the commissions.
- 10) Improve the process of conducting surveys of students and graduates.
- 11) Update the Rules of Academic Integrity document (No.1.1.-2/27 from Dec 2023) such that it includes concrete actions to be taken in case of integrity violations made by RTC's academic, teaching and general staff, instead of forwarding such matters to the Ethics Committee.

Long-term recommendations

- 1) Develop a new or revise the existing strategic development plan making it sound and targeting the declining number of new students and high drop-out rates. Make sure the plan incorporates and reflects the findings and outcomes of the implementation of the short-term recommendations 1- 4. Make sure the plan includes a clear timeframe for the proposed measures to be realised. Make sure the proposed annual budget covers things other than salaries. If needed, hire an expert to aid and steer the plan development process.

II - "Telematics and Logistics" ASSESSMENT

II - "Telematics and Logistics" ASSESSMENT

2.1. Indicators Describing the Study Programme

Analysis

2.1.1. The short cycle professional higher education study programme «Telematics and Logistics» (41840) at the RTC is a programme, designed for students who have completed secondary education or professional secondary education (SER, section 3.1.1.). The programme targets a diverse range of students, including recent graduates, adults seeking further education for career advancement, and employees aiming for retraining. Each course in the study programme aligns with the Logistics Occupational Standard (LOS) and Bloom's taxonomy, ensuring measurable objectives and clear expectations for student outcomes.

The study programme engages formally, according to internal documents with stakeholders, including employers, through post-examination discussions and surveys. This only partially ensures that feedback from industry experts will be incorporated into curriculum updates. Although the programme is taught in Latvian, English-language resources and transport-related terminology are incorporated into the professional studies, with future plans to offer certain courses entirely in English, based on faculty expertise.

The RTC emphasises inter-departmental cooperation to ensure smooth functioning and effective decision-making processes. A structured communication hierarchy helps students resolve academic or personal issues, with most cases addressed before escalating to higher management. Additionally, the Ethics Committee provides a platform for resolving conflicts among stakeholders.

The RTC has partially improved its digital infrastructure for academic support. The Moodle platform hosts study materials (but their quality and quantity are not sufficient), and the Exabis library offers access to the latest logistics literature (mostly in paper form, not enough in electronic format). The RTC has also subscribed to a wide range of electronic databases like EBSCO, Emerald, and ProQuest, providing students with access to high-quality academic resources. Cooperation with other institutions such as Riga Technical University (RTU) and the National Library of Latvia (NLL) further expands access to electronic resources, e-books, and research journals. However, this possibility is only partially encouraged by academic staff in student assignments and examinations, course descriptions, and learning materials in Moodle.

The programme's structure has evolved over the years based on student feedback and national regulations. Notable changes include revisions to course titles, content, and assessment methods, aligning them with industry standards and student needs. For instance, courses like "Operational Mathematics" were replaced with "Business Mathematics," and elective language courses were replaced with logistics-related subjects. Furthermore, the curriculum has incorporated updates in response to regulatory changes, such as the integration of civil protection courses in line with Latvian government standards.

The programme has not adapted well enough to the changing demands of both the industry and students.

On the one hand, flexible scheduling, including remote learning of theoretical classes, helps working students combine study with work (SER, section 3.1.1.). On the other hand, the class schedule only partially corresponds to daytime studies (full-time studies, on weekdays, from 8:00 to 17:00), but is actually implemented (according to the class schedule provided by the RTC administration) from 15:20 to 21:35, which is closer to correspondence or evening (part-time) studies. Flexible scheduling, including remote learning for theoretical classes, helps working students manage their studies alongside their employment. These adaptations, partly driven by the Covid-19 pandemic, make the programme more accessible to a broader audience (SER, section 3.1.1.). However, during the study by experts of students' activities in Moodle, it was revealed that only 3-4 students out of a group of 12 people use this opportunity, which is not a sufficient indicator of success and improvement.

According to the SER (section 3.1.1.), in order to strengthen its ties with the logistics industry, the RTC has been aiming to establish a Logistics Research and Training Centre. However, during the

meeting of the expert group with the RTC management, these plans were not announced by any of the groups of representatives (the management of RTC, members of the group responsible for the preparation of Self-Assessment report, Meeting with the director of the study field "Transport services" and the director of the study programme "Telematics and Logistics"), which does not allow us to confirm the existence of this plan.

Content-wise, aims and outcomes the programme are compliant with the study field. However, at time of writing this report the programme has got no competitive advantage over its closest competitors, and there is also no uniqueness or novelty in the content of the programme, study courses, student's course papers and qualification papers. Despite the fact that the programme is aimed at a wide range of students, over the past few years the number of students has decreased, thus indicating the presence of shortcomings in the compliance of the curriculum with the study field, as well as in the implementation process and quality of the programme. The expert group hence doubts the "Telematics and Logistics" study programme would remain relevant and valuable for both students and industry stakeholders.

2.1.2. The "Telematics and Logistics" study programme has been designed to equip students with essential knowledge and practical skills required to become qualified logistics specialists (SER, section 3.1.2.). Accredited in 2013, the programme aims to address both local and EU-wide demands for skilled professionals in logistics, transport services, and related sectors. The study programme has been structured to meet the requirements of the Latvian Occupational Standard for Logistics Specialist (Cabinet of Ministers of the Republic of Latvia Regulations No.322, 2017), aligning with the European Qualifications Framework. The programme spans 2 years and comprises 120 ECTS credits, of which 84 credits are allocated to study courses, including 30 credits for general knowledge and 54 for specialised logistics courses. The remaining 36 credits are dedicated to internships, qualification papers, and practical assignments, ensuring that students gain hands-on experience.

The expected outcomes of the programme align with the profession standard "Logistics Specialist" and LQF (LKI) level 5. According to the classification of education (Cabinet of Ministers of the Republic of Latvia Regulations No.322, 2017) the code of the study programme is 41840, where the last three numbers 840 corresponds to "Transport Services", while 41 corresponds to short-cycle professional higher education.

The study programme focuses on key logistics areas such as supply chain management, freight transport, and logistics cost analysis. The inclusion of practical components, with at least 30% of the study programme dedicated to applied learning. However, the programme might benefit from further diversification in its course offerings to better address the rapid advancements in digital technologies and sustainable logistics practices.

Graduates of the programme earn the qualification of "Logistics Specialist" at Level 5, a short-cycle vocational higher education qualification. The intended learning outcomes are clearly defined, focusing on equipping students with the competence to work independently in logistics and transport management. The programme aims to foster intellectual and physical development, creativity, responsibility, and professional ethics, aligning with the strategic objectives of preparing students for real-world challenges (SER, section 3.1.2.). At the evaluation moment, the programme has few problems with the content of study courses, student's course papers and quality of qualification papers (according analysis of the papers presented by the RTC management during the visit on 24.09.2024.).

According to the SER (section 3.1.2.), the learning outcomes highlight important skills such as team management, business communication and proficiency in both local and foreign languages. However, during a meeting of the expert group with students and academic staff, it was found that the English language proficiency of both groups was at an intermediate level, so an interpreter was invited. In addition, it is expected (SER, section 3.1.2.) that students would be able to analyse logistics problems and develop effective solutions, demonstrating their competence through a

combination of coursework and practical assignments. However, an analysis of the course papers and qualification papers revealed significant discrepancies in the quality of students' papers and the stated learning outcomes. Although the programme focuses on traditional logistics processes, it can expand its scope to include more advanced topics such as data analytics and AI in logistics to reflect current industry trends.

The admission process for the study programme is based on the secondary education qualifications of applicants, with no additional skill assessments required. This approach ensures accessibility for a broad range of potential students, although the programme may be more competitive for those with prior experience in related fields, given that most applicants are already working in logistics or have vocational training in the sector. The programme's duration of 2 years and its workload of 120 ECTS credits are appropriate for the goal of providing students with a solid grounding in logistics within a condensed time frame.

The title, code, professional qualification awarded, aims, objectives, learning outcomes and admission requirements are interrelated. Duration of the "Telematics and Logistics" study programme, scope and implementation language are reasonable and justified. The programme is delivered only in Latvian, which is suitable for local students. However, offering the programme in English or providing bilingual options could enhance its appeal to international students, potentially fostering greater cooperation within the EU's educational framework and logistics sector.

The study programme provides formally only a comprehensive foundation for future logistics specialists. However, to remain competitive and forward-looking, the programme should consider integrating emerging technologies and expanding its scope to include digital logistics, sustainability, and international regulations.

2.1.3. The following shortcomings were identified in the documents submitted by the RTC (the structure of the "Telematics and Logistics" programme for 2018 and 2024, as well as the SER, Appendix 3.2.1.5.):

a) Over the period 2018-2024, the composition and content of the study programme has not improved or changed, with the exception of the following: the names of 3 study subjects have been clarified: it was - "Applied English", now: "Professional English"; it was - "Office Work", now: "Document Management"; it was - "Fundamentals of Logistics Commercial Activity", now - "Fundamentals of Logistics".

b) All study subjects have been retained, there is not a single new study subject (for example: "Innovative Management in Logistics", "Management in Transport", "Human Resource Management", "Management and Safety of Transport Flows", "Transport Hubs and Terminals", "Organization of Customs Activities", "Air and Sea Transport").

c) Several courses end not with exams, but only with tests without assessment (passed / failed), for example: "Environmental and civil protection", "Organizational psychology", "Document management", and others.

All changes introduced to the study programme so far are justified and would be supported.

2.1.4. According to the Ministry of Economics, the transport and storage sector is expected to grow by 1.5% annually from 2020-2027 and 2.5% per year from 2028-2040. This will drive demand for mid- and high-level logistics professionals. By 2027, a shortage of 1,500 higher-educated logistics specialists is anticipated, due to workforce ageing and changes in the economy. The study programme faces challenges with declining number of students and high dropout rates (SER, section 3.1.4.), primarily driven by non-attendance, failure to meet contractual obligations, and the inability to renew studies after a break. These issues are common across STEM programmes in Latvia, where dropout rates remain high. Despite the programme's structured support, such as video-recorded lessons and individual counselling, the transition from school to higher education proves difficult for

many students due to different expectations, intensity, and learning styles. Other factors contributing to dropout include family circumstances, lack of motivation, and difficulties in balancing work and study commitments.

The programme's statistics reveal a notable impact of external factors like the COVID-19 pandemic, which contributed to the fluctuating number of matriculated students and excluded. The trend of self-financing students has also decreased over the years, with most students now funded by the state. Efforts to reduce dropout rates have included support mechanisms and annual reviews of student performance and expulsions. These reviews allow the programme's management to identify the most common reasons for student withdrawal, be it personal or related to the study programme itself, and formulate strategies to address these issues. However, ongoing challenges highlight the need for enhanced student retention initiatives, particularly focusing on motivation, academic support, and better integration of students into the learning environment.

According to SER (section 3.1.4), after the expulsion of unsuccessful students, in one group (the 2022-2023 academic year recruitment) there were 6 students left, in the second (the 2023-2024 academic year recruitment) there were 3 students left, and all students study at the expense of state funding, the programme is economically ineffective, its existence creates an existential threat to the RTC.

2.1.5. Not applicable.

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

Conclusions:

The RTC's "Telematics and Logistics" programme is a short-cycle professional higher education programme targeting a broad range of students, but it faces significant challenges in adapting to industry needs and student expectations. Despite some updates to course titles and flexible scheduling, the programme has not introduced new subjects and retains outdated content, contributing to a decline in student numbers. Furthermore, while RTC provides access to academic resources, its digital infrastructure and incorporation of industry feedback remain insufficient. As a result, experts doubt the programme's long-term relevance and ability to meet the demands of the logistics sector. The study programme provides a strong foundation for students aiming to become qualified logistics specialists, aligning with both national and European standards. The programme's 2-year duration and 120 ECTS credits are well-suited to equip students with essential skills and practical experience, particularly in supply chain management and freight transport. While the curriculum is comprehensive, it could be enhanced by incorporating emerging technologies like data analytics and AI to keep pace with industry trends. Overall, the programme is effective in meeting local and EU demands but could benefit from greater international appeal and focus on sustainability in logistics.

The transport and storage sector is projected to grow significantly, leading to an increased demand for logistics professionals, with a shortage of 1,500 professionals expected by 2027. Despite this demand, the study programme has been experiencing declining student numbers, average quality of programme content and courses, high dropout rates, mainly due to non-attendance, lack of motivation and difficulties adjusting to higher education. Although the programme offers support mechanisms such as video tutorials and counselling, external factors such as the COVID-19 pandemic have also impacted student retention. As a result, due to its modest content and quality, the programme is economically ineffective and as such has been generating rather poor interest among fee-paying students.

Strengths:

1) The "Telematics and Logistics" study programme provides students with a foundation by offering

a structured curriculum with a clear focus on practical skills, including internships and applied learning, ensuring graduates are prepared for entry-level logistics positions.

Weaknesses:

- 1) During the period 2018-2024, the composition and content of the study programme has not improved or changed, with the exception of individual clarifications of the names of a few study courses.
- 2) The programme is delivered only in Latvian, which may limit its appeal to international students and reduce opportunities for cross-border collaboration within the EU's logistics sector.
- 3) The programme is economically ineffective, with no interest from fee-paying students.

2.2. The Content of Studies and Implementation Thereof

Analysis

2.2.1. The study programme "Telematics and Logistics" focuses on key logistics areas such as supply chain management, freight transport, and logistics cost analysis. As discussed earlier in Section 2.1.2, in addition to key transportation and logistics (T&L) theories, the programme also features practical components with at least 30% of the study programme defined to have been dedicated to applied T&L. Despite the formally sound split between theoretical and applied learning, the content of the study programme may only be seen as partially topical given that it features a number of study courses dealing with general economics and only a few sectoral courses. Moreover, the content may also be deemed unbalanced as important sectoral courses such as, for instance, the "Transport Telematics" study course, teach a number of highly sophisticated technologies, concepts and paradigms like GIS, GPS, artificial intelligence or intelligent vehicle systems, but only on a rudimentary level. As such, these subjects remain rather blurry to students even after completing the studies adding further to the general confusion related to the target aims and objectives of the study programme discussed earlier. This has also been unanimously confirmed by the interviewed students and graduates which endorsed the view that the level of their literacy related to the aforementioned technologies, after taking the study, has been far from being sufficient for their independent practical working use.

Another manifestation of poor content balancing and lacking interconnection between the courses is visible if the contents of the study courses "Economic and Transport Geography", "Basics of International Economic Activity" and "Macroeconomics" are compared. It may hence be seen that, for instance, all of them deal with issues such as "...main macroeconomic fundamentals and their implications for the national economic system", "globalisation" and other such issues, but it remains unclear how they complement each other or prevent unnecessary repetitions. In addition, the "Economic and Transport Geography" course states, for instance, the ability to "...assess the basic geographical transport routes, shipping lanes and the world's major container lines in the analysis and planning process" as one of its learning objectives, but at the same time does not provide any indication as to what concrete planning tools, methods and/or concepts are used in these analyses.

In addition to the scarce use of digital (IT-based) solutions for planning and analysing transport processes described above, the questionable topicality of the study programme is also manifested through the lack of complementary T&L hardware aiding the study process of the industry-specific courses. Thus, for instance, in the logistics lab, not only that students use rather obsolete paper-based road atlases as aids to the teaching process, they get to be trained on a hand operated hydraulic forklift and barcode printers, while significantly more important and yet fairly affordable hardware like barcode readers, pick-to-light emulators or GPS loggers are completely left uncovered. As discussed earlier in Section 1.6.1., even though employers do participate in the realisation of the programme in various capacities, the RTC has failed to harness their undisputedly strong understanding of the current and future market needs in streamlining the business and technology

niches which the RTC would like to excel in. As such, the content of the study relies heavily on mere inclusion of interesting contemporary paradigms in the curriculum without much concern how they would comply with the overall aims of the programme as well as with the expected practical skill set of a graduated logistics specialist. An example of such an approach may be found in introducing students to concepts like the Lean Logistics taught to first year students which are very often complete novices in general logistics let alone in modern concepts such as lean logistics, just-in-time-supply-chain or similar. At the same time, the feedback from the employers suggested they would rather educate the freshly employed graduates on the modern concepts they apply in their daily business practice themselves, justifying such a standing with a claim that the RTC with its limited resources supporting the teaching process (eg. software solutions used, hardware equipment etc.) would not be able to match the resources of a typical transport/logistics company, hence the time spent in teaching students - for instance - basics of SAP use, especially in such a tight timeframe, would pretty much be in vain. Even though the expert group fully appreciates the views expressed by the employers and their focus on practicalities and practical applicability of the programme, nevertheless it is also aware that - if used uncritically - such views may lead to oversimplification of the very purpose and aims of the study programme itself. In steering the study programme towards meeting its strategic objectives, the expert group hence strongly encourages the RTC to use feedback from all the stakeholders critically, exercising proactive rather than reactive ways of introducing changes.

Finally, even though the RTC claims that the study programme is in line with the professional standard for logistics professionals and meets both the requirements of the labour market and student interests, the continuous decline in the number of students and the high drop out rate prove that considerable room for improvements still exists. The study programme has been operating in the business sector which is more than likely to generate more and more interest amongst all the stakeholders in the coming years. As such it is somewhat odd that the interest for a paid placement in a relatively simple and time-effective study programme continues to drop. If this is coupled with the fact that even the signed-in students eventually decide to discontinue their studies at the RTC, it is fair to assume that despite the student-centred approach, focus on internships and very competitive time-to-job market, the programme content does not generate tangible professional assets a graduated student would eventually be able to monetise. Despite the shortcomings, legally, the study programme has been structured to meet the requirements of both the Latvian Occupational Standard for Logistics Specialist and the European Qualifications Framework. As already discussed in Section 2.1.2, the programme spans over 2 years and yields 120 ECTS credits, of which 84 credits are allocated to study courses, including 30 credits for general knowledge and 54 for specialised logistics courses, whereas the remaining 36 credits are dedicated to internships, qualification papers, and practical assignments, ensuring that students gain hands-on experience.

2.2.2. Not applicable.

2.2.3. The study implementation methods may be deemed to have been contributing to the achievement of the aims and learning outcomes of both the study courses and the study programme itself. Although most of the study courses deal with basic level study content, still, the feedback received suggests that teachers utilise various teaching practices in trying to keep the student interest high and meet the expected course objectives. The interviewed students and graduates have both complemented the responsiveness of the teachers and student-focused approach. In addition, the graduates further complimented the study programme stating it had contributed greatly to their careers thus proving the programme to have been well positioned in terms of targeting both a lucrative business sector (transport and logistics) and a student population roaming between secondary education degree and BSc level studying, in addition to matching at least some of the current market needs.

Although the RTC should indeed be complimented for exercising student-centred approach in practical terms, certain implementation methods may however be found dubious. Firstly, in realising their study courses, many teachers rely on Latvian bibliographic sources leaving English-based resources complementary and hence seldom used in practice. The expert group appreciates fully the nature of the study programme and the fact it has been realised in Latvian only, however, this should not be confused with an approach that no part of the teaching process should be done in English or indeed any other globally applicable language. Quite contrary, taking into account the global context of any transportation & logistics thinking and doing, any study programme educating logistics specialists of today should encourage students to exercise as much internationalised approach as possible. One way of doing this is indeed making students as confident as possible in using English by stimulating their use of English-based literature.

2.2.4. Internships represent a fundamental part of the study programme and contribute to the overall objectives of the programme, especially in enabling practical utilisation of the knowledge acquired through the teaching process. According to the SER (p.111), the RTC has developed a regulation which governs the internship process, primarily the way of keeping the internship diary and the process of internship quality evaluation.

As discussed earlier in Section 1.2, although the RTC maintains steady relationships with employers thus providing students with internship opportunities, the feedback from the interviewed employers has revealed that the practical consummation of these ties has significantly decreased in the past 2-3 years. As a result, students seek and find their internship opportunities individually, and – as stated in the SER (p.111) – the RTC helps them find internship placements only when requested. However, it should be noted that the feedback the expert group has received from the interviewed employers suggests they (the employers) are typically not informed on what concrete tasks should be undertaken as a part of the internship and with which principal goals. As a result, the employers appoint interns to positions they see fit. Although such a practice may be considered questionable and suggest a lack of adequate RTC's support, it may well be seen as a token of encouraging students to take a leading role in steering their education process.

In addition to the questionable practice of managing the internship appointing process, the expert group has also been made aware by the employers that interns seldom spend 8 hours a day interning. Moreover, the interviewed students have raised concerns on circumstances in which interns are not actively participating in the practical real-life assignments given but rather acting as observers or shadows only. The interviewed employers hence proposed they would be interested to set up a formal process through which they would get a summary feedback from the RTC once the internship is completed in order to tackle these challenges.

Finally, it should be noted that as many of the students take their studies while being fully employed, the choice of where to take the internship is, in fact, non-existing hence any RTC support in such circumstances would be redundant. During the site visit the expert group had an opportunity to briefly introduce itself with typical examples of student internship diaries as well as examples of final qualification works. Given the prevailing practical nature of the latter, addressing concrete practical transportation and logistics tasks, it is fair to assume that these works were done as a part of the internship process rather than as an undertaking originating from a study course practical work. The expert group hence maintains the quality of the internship process is high and that the level of support students get when finding internship opportunities is adequate.

2.2.5. Not applicable.

2.2.6. Further to the discussion from the previous section the strong contribution of internships to the teaching process yields as a result practical nature of the final qualification works. The final works examples presented during the site visit deal with actual T&L challenges and showcase

practical problem solving abilities such as those having to do with logistics cost optimisation, cargo routing and others. It may therefore be concluded that the demonstrated quality of the qualification works is adequate and relevant with both the study field and the study programme assessed.

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

Conclusions:

The content of the study programme may only be seen as partially topical for several reasons. Firstly, the content relies heavily on study courses dealing with general economics while the share of industry specific sectoral courses is rather marginal and reflecting only introductory level transportation and logistics. The content may also be found unbalanced as it brings about rather sophisticated subjects, technologies and/or concepts even very early in the teaching process, despite the fact that a proper grasp on these technologies and concepts would for sure require advanced knowledge in many supporting disciplines not covered at all by the study programme. Furthermore, the teaching process is only scarcely underpinned by state-of-the-art dedicated software or hardware solutions, and the only proper hands-on experience in using these solutions students get through internships.

Strengths:

- 1) Very good “market” position of the study programme as it targets both a lucrative business sector (transport and logistics) and a student population roaming between secondary education degree and BSc level studying.
- 2) Practical implementation of the student-centred teaching and learning going beyond mere catchy phraseology.

Weaknesses:

- 1) Inadequate share of sectoral industry-specific study courses.
- 2) Unclear vision of the exit competencies of a graduated logistics specialist.
- 3) Insufficient contribution of IT-centred digital solutions and dedicated transport & logistics hardware to the curriculum.
- 4) Strong reliance on Latvian-based literature only.
- 5) Reliance on obsolete bibliographic references.

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 material, technical and informative provision of the study field corresponds to the materials available for the study programme “Telematics and Logistics.” Studies take place at Braslas Street 16, Riga. Each classroom has a projector and a computer for the lecturer. RTC has participated in a project called "Reducing the digital gap in socially vulnerable groups and education in institutions" in order to secure computer equipment and since 2018, a computer classroom in room 419 has been set up for the "Telematics and Logistics" programme. In addition, for the academic year 2023/2024, 25 computers equipped with relevant logistics software have been

installed in room 363 (SER p. 116).

The installed software on computers consists of Tildes Birojs 2016, simulation equipment - logistics software licence "JS Baltija 3.5 Pro Logistics" and 3 sets of simulation equipment - "Beer Distribution Game" type supply chain simulation board game for training purposes in the transport and logistics sector. Students have theoretical lessons in the main building and in a separate building a logistics workshop has been set up. The material provision there consists of various types of equipment used in warehousing and land transport (as it emerged from various meetings with the staff, the focus of the studies is on land transport and the students are only given a basic introduction to, for example, water or air logistics). Students have access to the library on every work day from 8.00 to 17.00, one day a week until 18.30. During the on-site visit the expert group noticed that the library lacks industry-specific literature in a printed form regarding logistics, granting the opportunity of reviewing basics of logistics, but not in depth analysis of, for example, railway logistics. This complements the situation in the logistics workshop, that is also mainly focused on one type of logistics – land transport. Although students nowadays use a lot of electronic resources, paperback printed books are still used and not a thing of the past. Thus the collection of printed resources should be improved, unless RTC has an agenda to develop a plan on how to eliminate paper based titles completely and use only electronic sources. The SER (p. 118) stresses the importance of using databases for students of "Logistics and Telematics", as there one can find the latest research findings. Therefore students have access to such databases as EBSCO, Web of Science, Emerald Insight, SCOPUS, ArtStor and others. Students also have the possibility to visit the National Library of Latvia or library of Riga Technical University, in order to use such databases as ACM Digital Library, ProQuest Ebook Central platform, IEEE Xplore Digital Library etc. (SER p. 118).

The RTC uses electronic platform Moodle, where study materials and requirements for study courses can be found (SER p. 45). During the on-site visit expert group observed that the amount of information that can be found on Moodle varies depending on the specific subject and the lecturer. Some of the course pages on Moodle lacked course descriptions, list of materials and information about tasks and tests or other forms of grading.

In general material and technical provision is sufficient in order to implement the study programme, however should be critically evaluated and updated regularly, especially regarding various digital tools.

2.3.2. Not applicable.

2.3.3. The financial sources of the programme correspond to the sources of the study field and are as follows:

- a) State budget subsidy from general revenues for the provision of studies;
- b) Financial resources allocated by the Ministry of Education and Science of the Republic of Latvia for the development of scientific activities, which are granted for the results of research-based higher education (performance-based funding);
- c) Income from paid services and other RTC income;
- d) Projects funded by European Union organisations and other international organisations (Erasmus+) (SER p. 119).

The SER (p. 119) states that "the state funding is sufficient/adequate for the 20 students of the study programme "Telematics and Logistics" and the programme currently has 20 students, which ensures the cost-effectiveness of the programme". However, the SER does not fully address the decreasing number of admitted students by each year and the drop-out rate. It is not clear why during on-site visit management of RTC expressed a wish to increase budget places in this programme, taking into account that as of now the programme fails to have as many students as allocated budget spots.

The RTC has calculated that 15 students per year is the minimum number for the programme to be

viable and cost-effective. However as of now the programme in total has 20 students, both in 1st and 2nd year. SER does not describe or address the fact that the number of students is below the cost-efficient mark and does not consider different implementation options.

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

Conclusions:

In general the RTC has sufficient financial funds and material and technical provision in order to implement the study programme. However, the material provision should be critically evaluated and updated regularly, as a lot of printed resources provide only the basic knowledge of logistics or are focused only on land transport. RTC has a modern infrastructure that facilitates the needs of students.

Strengths:

1) Modern and mostly accessible infrastructure.

Weaknesses:

- 1) Material and technical provision is becoming obsolete. Library is lacking industry specific literature in a printed form.
- 2) Although the teaching staff self-assessment procedure is well designed, assessment of its effectiveness is lacking, thus making it hard to understand its results.

Assessment of the requirement [6]

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

Assessment of compliance: Partially compliant

In general the study programme “Telematics and Logistics” has sufficient material and technical provision in order to implement the study programme, however some improvements should be made regarding the usage of Moodle system and updating the materials, including newest industry research and digital tools.

2.4. Teaching Staff

Analysis

2.4.1. The strategic task of the RTC is to provide a team of qualified, motivated, cohesive and capable teachers, which would ensure the quality of the study programmes conducted at the College, meeting the requirements of the changing labour market. Notably, RTC's human resource development vision also envisages that its faculty members should be contemporary, contemporary thinkers, friends of skill and knowledge-hungry personalities. Selected academic staff and guest lecturers participate in the implementation of the study programme, whose experience and expertise are based on scientific research and science, practical experience (this criterion was especially emphasised during the interview with students and graduates) and close cooperation with companies of the relevant profile in the country. Study programme teaching staff also participate in the activities of the international European mobility Erasmus+ program in foreign universities and companies, improving their professional competences and digital and foreign language skills. These facts were also confirmed during interviews with teachers. In order to ensure the high-quality implementation of the study programme, the components of the RTC academic staff performance

monitoring system were implemented, and the annual academic staff performance evaluation system was also created. It should be noted that a number of teachers also work successfully in the business/logistics sector and are members of professional associations (e.g. member of the Latvian Logistics Association; member of the Latvian Packaging Association). Teachers regularly participate in various trainings, conferences and seminars.

Despite that, after conducting an analysis of the RTC documents (SER Section 2.3.7., Annex 2.3.7.1.), it should be concluded that the qualification of academic personnel has significantly decreased over the past period since the previous accreditation. As stated in the SER (Section 2.3.7.), at the moment 18 teachers are involved in the implementation of the study field and programme - 5 with a doctoral degree, 13 with a master's degree, 3 with a bachelor's degree, 2 with the first level of higher education (incomplete bachelor's degree). That is, in total - not 18, but 23. This mistake is also visible in annex 2.3.7.1, where the total number of teachers is not 23, but 18. In addition, the number of teachers with a doctoral degree is not 5, but only 3 (numbers 1, 13 and 18), with a master's degree - not 13, but only 9 (numbers 2, 4, 5, 7, 8, 12, 14, 16, 17), with a bachelor's degree and below - 6 (numbers 3, 6, 9, 10, 11, 15).

Another negative aspect is that the proportion between elected in RTC academic staff and visiting teachers (not elected to the RTC staff) is 8 against 10, i.e. only 44% of the teachers are full-time employees of the RTC. It should be noted that there are only three teachers left in RTC who have education in the field of transport and logistics (number 10, 15, 17). What is even worse is that teacher's number 10 and 15 do not even have a master's degree. All three of these teachers are not involved in teaching courses in the field of telematics and logistics. And only teacher number 17 is a full-time teacher at RTC.

During the discussions with the academic staff, the following aspects were identified:

- a) The academic staff actively communicate about the non-overlapping of similar topics in different courses.
- b) The descriptions of the programme's courses are updated annually, but there is insufficient feedback from the programme director, especially regarding the objectives of the courses, learning outcomes and possible improvements.
- c) Insufficient number of study excursions to large enterprises in the field of telematics and logistics.
- d) The topics for course papers and qualification papers are often only partially related to telematics and logistics. Insufficient number of methodological seminars for both academic staff and students. As a result, such papers in the final versions contain low-quality sources (e.g. Wikipedia), there are no suggestions for improvement, low-quality conclusions, often - there are no calculations and analysis of IT resources and logistics operations.
- e) Insufficient attention from the RTC administration to the quality and content of educational materials (especially in electronic form, including Moodle).
- f) Formal attitude to the acceptance of students' internship, with no grades, lack of specialists in the field of logistics for working in defence committees.

In summary, it can be said that the qualifications of the teachers participating in the implementation of the study programme (with the currently valid network of study subjects, in which only 9 of the 27 study subjects are professional subjects and 3 practice) meet the requirements. determined in the currently valid study programme implementation and normative legal acts, allows to achieve the study goals and study results, but when assessing the market requirements for students and graduates of this programme, it has to be stated that this study programme does not contain a sufficient amount of specialized profession subjects, in order to prepare evaluated programme qualified specialists.

Therefore, as a result, the existing academic staff, in terms of their level of qualification, is only partially capable of helping RTC students achieve their learning outcomes, which is especially negative for the telematics and logistics courses.

2.4.2. The SER states that in recent years there has been a tendency to improve the quality of studies in the programme, because the new teachers are younger, energetic, and have the latest knowledge, skills and competences in their field. Evaluating the turnover rates of teachers, over the past year, it has been noticed that the number of doctoral students and bachelors in the academic staff structure has slightly increased, while the number of masters has slightly decreased. Since the last accreditation of the study programme, new teachers have been recruited and attracted to the implementation of the programme. Also, it should be noted that the change of teachers was influenced by the COVID-19 pandemic.

In the 2022/2023 academic year, a guest assistant practitioner for the subject of accounting and an assistant for the subject of communication psychology joined the programme, and in the 2023/2024 academic year new teachers joined the programme: a guest lecturer, practice for the subject of Warehouse logistics, and a guest lecturer, practice for teaching Transport organisation and cargo management, and economic and transport geography.

Taking into account the above information, it can be said that the college is purposefully taking measures so that changes in the composition of teachers do not negatively affect the quality of the implementation of the study programme and the compliance of the study programme with the requirements established in the normative acts. However, such a conclusion can only be made because the experts assessed existing teachers, existing subjects, and not what the experts see as the training of specialists in this study program that would meet market requirements. The current teachers meet the requirements of the study program according to the subjects they are currently teaching. However, if the subjects in this study program will be fundamentally changed (this will have to be done according to the recommendations of the expert group), then the personnel will have to change as well.

2.4.3. Not applicable.

2.4.4. According to the information provided in the SER, the number of academic staff in the evaluated program changed slightly (20 teachers worked in 2011/2012; 19 teachers in 2023/2024). A list of 97 publications was submitted for evaluation (source "Pielikums_2_4_4_2_PUBLIKĀCIJAS LOĢISTIKAS ENG"), of which: 10 publications are directly related to the specialty and specificity of the evaluated program, the rest of the publications are related to general subjects (economics, management, law, educology, languages, programming etc.). It should be noted that the list of publications is not presented according to a uniform style (e.g. APA, etc.), which complicates their evaluation. Taking into account that each member of the academic staff must have published in peer-reviewed publications, including international ones (if the employee has worked for a shorter period of time, the number of publications must be indicated in proportion to the period of work), according to the documents submitted for evaluation, the results are as follows:

- i) 48 out of 97 submitted publications are from the last (6 years) 2018-2024, of which only 1 (2024) is related to logistics.
- ii) The main authors of publications/scientific works in the last 6 years are 32 authors, and one publication/scientific work is presented without author(s). Considering that in the SER annexes (CV anglu val Loģistika(3).7z (17 CV); CV latviešu val Loģistika(2).7z (18 CV); 2.3.7. 1.Mācībībspēku_saraksts_Loģistika.docx (indicated 19 teachers); 2.3.7. 1.Mācībībspēku_saraksts_Loģistika(1)(2).docx (specified 18 teachers) provide different numbers of employees, it is difficult to assess the exact compliance with the requirement.

2.4.5. Cooperation between programme teachers is encouraged through both formal and informal means. Course descriptions are reviewed and placed on the Moodle platform before the beginning of each semester by the teacher's decision. Courses of study are reviewed by the study programme

director to ensure that courses do not overlap. During the academic year, meetings of study programme teachers are organised in which study programme teachers, students and industry representatives participate. These facts, noted in the RTC SER, were confirmed both by the Head of the study programme and by the teaching staff. It was also mentioned that department meetings are held once a month, the purpose of which is to discuss the most important issues related to the study programmes offered by the department, as well as the latest industry trends.

Teachers from the professional and academic environment participate in the implementation of the study programme, which, in turn, helps to achieve the goals and results of the study programme. Study programme teachers cooperate in order to implement and update the content of study courses; also agree on the topics to be taught to avoid unnecessary duplication of subjects. During the conversation with the lecturers, it became clear that the lecturers ask the student whether they have already heard certain things during other lectures, and if the answer is positive, they move on and do not dwell on that question any longer. At the same time, lecturers are also involved in creating non-academic activities for students, for example, organising study tours to companies or attracting industry guest lecturers who could give lectures on an important or topical transport/logistics topic.

Taking into account the above information, it can be said that the RTC is a mechanism for cooperation in the implementation of the study programme between teachers, and between teachers and business representatives, which ensures the achievement of the goals of the study programme and the links between study courses in the study programme.

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

Conclusions:

Taking into account the current study courses and the subject taught, it can be said that the teaching process employs competent staff and guest lecturers who can impart practical knowledge and experience. However, in principle, the content of study courses should be revised, which should include more specific specialty subjects, which will also affect the composition of the staff. The college is ensured by the mutual cooperation of the persons participating in the study process, in order to ensure quality studies. The staff raises qualifications both in Latvia and outside of it (according to the Erasmus+ program), but this is not carried out enough.

Strengths:

- 1) Teaching staff with theoretical and practical experience.
- 2) A united team of teaching staff.

Weaknesses:

- 1) Teachers pay too little attention to scientific research activities in relation to the specific activities of the analysed programme.
- 2) Lists of publications do not follow a uniform style (eg. APA, etc.)

Assessment of the requirement [7]

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

Assessment of compliance: Partially compliant

According to the existing study subjects, the qualifications of the academic staff meet the requirements, but taking into account the market requirements for the specialist being

prepared, the existing staff and their specialised transport/logistics competencies are insufficient.

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

Annex 3.2.1.1. (Annex 3.2.1.1. Compliance of the study programme "Telematics and Logistics" to the state education standard) confirms that the study programme complies with Cabinet Regulation No. 305 "Noteikumi par valsts profesionālās augstākās izglītības standartu". "Environmental Protection, Civil Defence" study course (ICA301Civil Defence) is included in the programme if the student has not taken it before.

- 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: Partially compliant

Annex 3.2.1.2. (Annex 3.2.1.2. Conformity of the study programme "Telematics and Logistics" with the profession standard) confirms that the programme is compliant with the professional standard of "Logistics specialist" (5th level of qualification and approved on 10.02.2021.), The content of the study programme may only be seen as partially topical given that it features a number of study courses dealing with general economics and only a few sectoral courses (Report, part 2.2.1.)

- 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

Attached study course descriptions ("Annex 3.2.1.6. (LV) and Annex 3.2.1.7. (Eng) Study courses catalogue") are prepared in Latvian and English. Descriptions comply with regulations set forth in Law on Higher Education Institutions.

- 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: Partially compliant

The provided Diploma sample (Annex "Diploma pielikums_Logistika_no 2024.g.1.sept.docx") partially complies with the procedure by which state-recognised documents of higher education are issued in accordance with Cabinet Regulation No. 202 "Kārtība, kādā izsniedz valsts atzītus augstāko izglītību apliecinošus dokumentus". Several study courses in the "Grade" / "Vērtējums" section indicate a grade "Pass" / "Ieskaitīts", but it should be "Atzīme".

- 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

Attached resumes of staff ("CV latviešu val Loģistika(2).7z") and confirmation ("23.pielikums(1).edoc") verifies that state language proficiency is compliant with Cabinet Regulation No. 733 "Noteikumi par valsts valodas zināšanu apjomu, valsts valodas prasmes pārbaudes kārtību un valsts nodevu par valsts valodas prasmes pārbaudi".

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

Assessment of compliance: 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: Partially compliant

Study contracts for students who will study for a fee and students who will study with state funding are different. (Annex, point 1.1. - for fee-paying students, the classification code and credit points are specified in the contract, but this is not written in the contract for state funding students).

- 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

In the appendix RTU_1.1.-36_11, the College has provided an assurance that RTC "Telematics and Logistics" programme students will be provided with the opportunity to continue their education in the "Logistics" study programme of Riga Technical University.

- 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

In the Annex Nr4 the College has provided an assurance that students are guaranteed damages if the study programme is not accredited or the license of the study programme is revoked due to the action (action or inaction) of the College and the student does so, does not want to continue his studies in another study programme.

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

Assessment of compliance: Not relevant

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

Assessment of compliance: Not relevant

Assessment of the requirement [8]

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

Assessment of compliance: Partially compliant

In general, the study programme meets the requirements of the Law on Higher Education Institutions and other regulatory acts. However, certain sub-points, such as No. 2 on "Compliance with professional standard", No. 4 on "The sample of the diploma", and No. 10 on "The sample of the study agreement" are only partially fulfilled. The partial fulfilment is visible from the following:

- a) The content of the study programme may only be seen as partially topical given that it features a number of study courses dealing with general economics and only a few sectoral courses.
- b) The contract for state funded students the classification code and credit points are not specified in the contract.
- c) The use of the national language should be specified in the Diploma Supplement - for several study courses in the "Vērtējums" section indicate a grade "Ieskaitīts", but it should be "Atzīme".

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

Conclusions:

Both the evaluated study field and the study programme have been operating in the business sector which is more than likely to generate considerable interest amongst all the stakeholders. As such the expert group finds it rather problematic that the interest for a paid placement in a relatively simple and time-effective study programme continues to drop. On the other hand, a number of students interviewed clearly stated they could not get a paid study place anywhere else, holding this a major factor influencing their opting for the RTC. If this is coupled with the fact that even the signed-in students eventually decide to discontinue their studies at the RTC, it is fair to assume that despite the student-centred approach, focus on internships and very competitive time-to-job market,

the programme content does not generate tangible professional assets a graduated student would eventually be able to monetise. Prospective students get attracted by the study programme mainly by the fact it is a short government-sponsored programme with very low admission requirements. Further to the discussion on the questionable programme content the expert group also finds it inappropriate that the study programme has almost entirely been facilitated without the use of logistics specific digital tools. Taking into account typical operational practices of the 21st century transportation and logistics, a study programme not supported by modern IT solutions optimising delivery routes, storage capacities and/or cutting down costs may hardly be deemed better than average. Resource-wise, the programme is also facilitated by Latvian-oriented communication practices only (literature, teaching, general communication) which, in turn, yields a very low confidence and independence of both staff and students in using English, a most prevalent communication language of international transportation and logistics of today. Finally, the effectiveness of the study programme is validated through excessively generic learning objectives. Objectives such as "...to control the movement of goods at international and national level.." correspond more to typical job description entries rather than to the objectives of a well thought-off analytical process run to position the study programme adequately on the "academic market". In addition to their questionable nature, such learning objectives also make scoring the level of their achievement difficult and very easily partial.

Evaluation of the study programme "Telematics and Logistics"

Evaluation of the study programme:

Average

2.6. Recommendations for the Study Programme "Telematics and Logistics"

Short-term recommendations

- 1) Revise the study programme learning outcomes and make them straightforward and clearly depicting the skillset of a graduated student.
- 2) Increase the share of sectoral industry-specific study courses in the curriculum. Make sure they go beyond mere theoretical introductions and cover/teach on concrete specific skills required from a 21st century logistics specialist. Consider the development of new study courses such as: "Innovative Management in Logistics", "Management in Transport", "Human Resource Management", "Management and Safety of Transport Flows", "Transport Hubs and Terminals", "Organization of Customs Activities", "Air and Maritime Transport".
- 3) Review the subjects taught and, if possible, include more specialist subjects, as well as subjects related to passenger transport.
- 4) Develop a marketing plan to attract fee-paying students and improve the economic efficiency of the programme.
- 5) Create a clear incentive system for teachers for published scientific production.
- 6) Revise the syllabus of the sectoral courses like "Transport Telematics", "Basics of Business Logistics" and similar, and make sure they are balanced with respect to the number and the complexity of the contemporary technologies, paradigms and concepts students are introduced to.
- 7) Revise the syllabi of the "Economic and Transport Geography", "Basics of International Economic Activity" and "Macroeconomics" study courses and make sure they complement each other. Consider reducing the number of general economics courses.

- 8) Revise the realisation of the teaching process held in the logistics lab and make sure it complements the lecturing of the “Transport Telematics”, “Information systems and technologies in logistics” and other such IT-centric sectoral courses. Consider omitting the use of paper-based road atlases and use digital mapping instead.
- 9) Revise the bibliographic references used in industry specific study courses and try making them as recent as possible. Encourage students to use as many English-based sources as possible (other than Wikipedia).
- 10) Devise a short-term plan for the provision of dedicated transportation and logistics equipment. The plan must reflect concrete needs of the industry-specific study courses. Consider industry sponsorships as much as possible. Set up a planning process for long-term provisions.
- 11) Increase a systematic usage of Moodle system by the teaching staff to ensure that all necessary information about the study course materials and requirements is easily accessible to students.
- 12) Strengthening the partnership in scientific research within the framework of the contracts already signed with foreign partners.
- 13) Intensify application writing activity in the field of international projects.
- 14) Increase the number of guest lecturers.
- 15) Develop an annual plan for organising educational excursions to enterprises in the logistics sector.

Long-term recommendations

- 1) Develop a programme in English, which could increase its attractiveness for international students and reduce the risks associated with the reduction in the number of budget places.
- 2) Broadening the scope of cooperation with international organisations in the field of transport and logistics.
- 3) Increase the number of foreign academic staff (teachers, researchers).
- 4) Align the study programme such that it is able to generate tangible assets to the employers thus making them interested in funding prospective students or programme-related research work.
- 5) Further to the previous recommendation, improve the “value-for-money” gain and make sure students too see financial benefits from graduating the study programme even in circumstances where they would be required to finance their studies themselves.
- 6) Increase the low number of outgoing student mobility in the study field.
- 7) Increase the submission of project applications with a focus on EU projects in the study field.

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 | Improvement, development and effective activities in the field of training, while introducing an internal quality assurance system - is partially implemented (RTC SER, section 2.2.1., Report, part 1.2.1.) |

| Requirements | Requirement Evaluation | Comment |
|--|------------------------|---|
| R2 - Compliance of scientific research and artistic creation with the level of development of scientific research and artistic creation (if applicable) | Partially compliant | <p>This point is assessed as partially implemented, since 66.67 percent of the 6 evaluation points are incompletely implemented:</p> <ol style="list-style-type: none"> 1. The purpose of RTC research and creation is in line with the goals of the college and the field of study and is relevant to the study field and industry, but there are aspects that need to be improved. 2. The conducted research and its results are integrated into the study process, but this is mostly done in general subjects. 3. Insufficient cooperation at the international level in educational/research activities. 4. The insufficient mechanism for involving/motivating teachers in scientific/research activities is only a single incentive system, but it does not represent the whole clear mechanism. 5. Insufficient mechanism for involving/motivating students in scientific/research activities, apart from the fact that students do conditional research during coursework and diploma theses, which allow to delve deeper only into a narrow problem in a specific company. 6. Today, only one of the innovative tools - artificial intelligence - is applied, and that only in individual study subjects. |
| 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 | Cooperation is partially ensured in Latvia, but at the international level it can be assessed as low. |

| Requirements | Requirement Evaluation | | Comment |
|--|------------------------|---------------------|--|
| R4 - Elimination of deficiencies and shortcomings identified in the previous assessment of the study field, if any, or implementation of the recommendations provided. | | Partially compliant | Declined recommendation to introduce new English-held courses. Formal introduction of recommendations only, without going into much details on the effects generated. Questionable justification for the recommendation targeting library resources. |

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 | Telematics and Logistics (41840) | Not relevant | Partially compliant | Partially compliant | Partially compliant | Average |

The Dissenting Opinions of the Experts

There has been no dissenting opinions of the experts membering the expert group.