

# Expert group joint opinion

Evaluation Procedure: Assessment of Study Field

Higher Education Institution: Transport and Telecommunication Institute

Study field: Management, Administration and Management of Real Property

Experts:

1. Erika Vaiginiene (Chair of the Experts Group)
2. Iveta Ludviga (Secretary of the Experts Group)
3. Anne Perkio
4. Līga Baumane (Latvijas Studentu apvienība)
5. Dainis Locāns (Latvijas Darba devēju konfederācija)

# Summary Assessment of the Study Field

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TTI study direction 'Management, administration and real estate management' has clearly defined attainable goal, which well-suites the new TTI Vision.

TTI has established a quality policy and has developed and maintains a quality assurance system that contributes to the achievement of the aims and learning outcomes of the study programmes and study direction. The system ensures continuous improvement, development, and efficient performance of the study direction and the relevant study programmes.

The procedures for the development and review of the study programmes of the study direction and the feedback mechanisms are defined and they are logical. TTI collects and analyses the information on study programmes of the study direction on a regular basis and uses it to improve the study direction. Student support and student-centred learning is current development area for TTI and there is some progress.

TTI has good resource base and the students and the teaching staff have access to the necessary resources to ensure the quality of teaching and learning process.

The Institute has set challenging goals in research, and they are taking actions to reach these aims. Involvement in international research projects should be enhanced. The need to increase international cooperation is recognized but measures to tackle this challenge have not been very successful. Stronger emphasis on research methods also in the bachelor programme could be recommended.

TTI has established strong cooperation with all stakeholders. A system for involvement of partners in the implementation of the study direction and procedures for the attraction of the teaching staff and students from abroad within the study direction is developed, it seems efficient and contributes to the improvement of the study process.

The professional master study programme 'Aviation management' is unique in the market and its design and content of the study courses well correspond to the industry requirements. Programme has very enthusiastic Programme director and highly qualified teaching staff. Programme has good perspectives for further internationalisation, however, currently the possibilities for staff and student international exchange in programme related areas are quite limited and should be widened.

Master programme 'Business and Management' has been updated just before the accreditation process putting 'Change management' as a key selling point. This appears to be very timely and efficient decision. The programme progresses with the implementation of the student-centered learning conception. It has aligned study programme aims and learning outcomes with the courses' learning outcomes. Opportunities for interdisciplinary learning at different laboratories can be distinguished as a strength of this programme.

Bachelor programme 'Business and Management' aims to ensure acquisition of knowledge, skills and competences in various domains of business management and provide knowledge of various digital and financial management tools. The strong technical character of the Institute can be a competitive edge for the business programmes but also their own profile should be nurtured. The qualifications of the academic staff are on a high level. However, further education endeavours could be taken in the field of pedagogical skills in order to diversify the teaching and learning methods. International activities should be enhanced in order to provide more international impact and elements to the staff and the students.

The most important strengths of the institution:

- TTI is well positioned in the market - Interdisciplinarity and understanding of management in the context of new technological developments seems to be a distinctive feature of the graduates;
- A competitive advantage in the Baltic HEI education market by the provision of study programme 'Aviation management', which allows ensuring high demand for certain competencies in the labour

market in the near future;

- Compliance with international standard ISO 9001: 2015;
- Well-equipped in study process and good resource base;
- Professional academic staff - 70% of all has Ph.D., 10 of visiting lecturers have a doctoral degree, the rest have a master's degree in the respective field;
- Support for raising qualification of the academic staff is provided (English language courses, methodological exercises and seminars);
- Strong commitment to research on all levels of the organization;
- Incentives for academic staff members for publications.
- Strong cooperation with industry companies and experts in Latvia;
- Student overall satisfaction with teaching and learning processes;
- Orientation process (welcome week for students and handbook for new lectures);
- International study environment which attract new students.

Weaknesses:

- There are some doubts regarding decision making process. The study programme directors don't have real power to develop the study programme;
- Quality standards set for Research does not include quality criteria for the Research output (the set KPIs are more related to quantity);
- Lack of formal process for collaboration between academic staff from different department, industry professionals and other programme stakeholders (the cooperation seem to take place, but formalisation of the process could be beneficial);
- International cooperation could be more active and livelier, number of exchange partners for programme 'Aviation management' is limited;
- Employers and students expressed the need to strengthen development of management competences, and specifically in the areas of traditional marketing, risk management, safety, security, ethics, and social responsibility;
- Study Programme learning outcomes are too many and not clearly related to LQF and EQF level descriptors. Learning outcomes lack some important aspects relevant to LQF - especially lack of ERS (Ethics, Responsibility, Sustainability) related competences indicates weaknesses in the formulation of learning outcomes for programme 'Aviation management';
- In study programme plans it is indicated that for the evaluation of students' achievements in some of the courses a 'differentiated test' is used instead of the examination. It is not clear what does it means and why examination is not mentioned since the faculty and programme directors stated that assessments of all the study course are similar and can take various forms.
- TTI has not established joint study programmes;
- Presented Internship reports lack clear students' proposals identified during internships which might improve the organization operations processes.

## **1. Management of the Study Field**

### **Analysis**

The main goal of the study direction 'Management, administration and real estate management' is 'to provide students with a sustainable high-quality education in the field of management, ensuring competitive career development in the Latvian and international labour market and by training internationally recognised, highly qualified specialists meeting the requirements of modern employers in various fields of management and administration, using the results of relevant researches'. It is clearly defined and attainable goal, which well-suites the new TTI Vision 'To be the leading private technical university in the Baltic Sea Region'. The self-assessment report

demonstrates the attainability of the study direction goal by providing evidence about interdisciplinary and relevant research, which supports the learning process (see page 92-93). The Transport and Telecommunication Institute implements study programs in 5 directions: Information Technologies, computer hardware, electronics, telecommunications, computer management and computer science; Mechanics and metalworking, thermal power engineering, heat engineering and machinery; Transport services; Economics; Management, administration and real estate management provide education to 17% of students' in the total portfolio of TTI study directions. Admission to this study direction is continuously growing, with a small decrease in 2016 and 2017.

With the implementation of a new period strategy, starting from 2021, study direction "Management, administration and real estate management" is assigned with a supplementary (horizontal) mission at TTI - to provide management and leadership competence education across all other study directions at TTI. So, its importance in the overall portfolio of study directions is growing up.

Under the umbrella of "Management, administration and real estate management" study direction Bachelor Program "Business and Management", Master Program "Business and Management" and Professional Master of "Aviation Management" are implemented. Those programmes correspond with all legal requirements; they were developed and reviewed, taking into consideration Latvian and European strategic documents. The study direction has a good position in the Latvian HE market and Baltics in general. Social partners, during the meeting of the onsite visit, noted that graduates demonstrate such soft skills as 'target achievement' and robust 'self-motivation'. Also, graduates are good at innovation management and in the usage of IT instruments. The distinctive feature of the graduates is an interdisciplinary understanding of management in the context of new technological developments. However, it was stated that competences in the management area could be better developed, and specifically in the areas of traditional marketing, risk management, safety, security, ethics, and social responsibility. Expert commission spotlights the fact that ethics and responsibility is a required competence according to Latvian Qualification Framework (LQF) Level 7 descriptors.

The structure of the management of the study direction and the relevant study programmes is well defined in the 'Regulation on Management of the Study Directions and Study Programmes'. There is a clear study direction and the relevant study programmes management process, which is certified by the International Standardization Organization. However, a more in-depth analysis of the documents highlights some aspects in the process of decision making, which raises doubts regarding its efficiency. According to the 'Regulation on the Study Programme Director', study programme director has 'to ensure the development of the study programmes in accordance with the current requirements set for the field of science and laws...; follow the updating of study course descriptions....; ensure preparation of the annual self-evaluation report of the study programmes...; cooperate with the heads of departments, the head of the field of study and adjust the study plan for the next academic year according to the achievement of the planned study results; take the necessary steps to ensure the accreditation of the field of study in cooperation with the head of the field of study; analyse and summarise the results of the survey of students, graduates and employers and organise the elimination of the identified deficiencies and improvement of the programme; participate in the assessment and comparison of the scope and content of the study course previously acquired by the students at TTI or other higher education institutions; engage in advertising campaigns in cooperation with the Marketing Department. (page 38)'(it is administrative work); however, according to 'Study course management regulation' decision on the development of a new study course is done by the Dean of the Faculty. Moreover, during the onsite visit, it was clarified that the head of the department also has to give the permission to develop a new study course. Also, study programme directors don't manage financial information about their programme. During the onsite visit, nor study direction director, nor study programmes directors had knowledge

about a break-even point of their programme and informed the expert commission that programme finances are managed by the chief financial officer at the TTI. It demonstrates that study programme directors don't have real power to develop the study programme. "Power" in management terms means the right to say "yes" and "no". In TTI case programme directors have the opportunity to give proposals, but the decision "yes" or "no" are done by the Heads of Departments and by the Dean of the faculty.

Also, TTI Director informed that there are plans to review organizational structure with the aim to make it more effective. Expert commission supports this intention.

TTI has a well-established and viable administrative and technical support system. During the onsite visit, it was proved by the students and by the lecturers, who mentioned the same support channels and were positive about the quality of support services.

Students' admission procedures, as well as recognition of the study period, professional experience, and the previously acquired formal and non-formal education, correspond with all national requirements. University requirements for foreign applicants wishing to study in undergraduate programmes to take tests in English (in social science programmes) or in English and the specialisation subject(-s) (in engineering programmes) can be distinguished as a good practice example. Also, the university provides additional courses in mathematics for the students who do not have good bases of mathematics. Methods and procedures for the evaluation of students' achievements are regulated by a number of internal documents. However, there is a need for a higher clarity on how the evaluation of students' achievements is organized. The university ensures the broad spectrum of learning methods; it presupposes the use of the broad spectrum of evaluation methods. However, all presented syllabuses demonstrate that for the evaluation of students' achievements, test or exam is used. According to 'Transport and telecommunications institute Study procedure regulations' 'The exam is a written, verbal or mixed (written and verbal) examination included in the study plan, in which the teaching staff or the teaching staff commission examines the knowledge and skills acquired in the study course or a part of it.' And 'Test is a summary of the execution of the works provided for in the study course (practice, module) (without an additional examination of knowledge at the end of the study course (practice, module)), which is assessed with "passed/not passed" or with a mark according to the study plan.' From those definitions, it is not clear how other evaluation methods are used for the evaluation of students' achievements.

TTI academic integrity principles are regulated by 'Ethical charter' and 'Plagiarism control rules of the transport and telecommunications institute'. Transport and Telecommunications Institute's 'Ethical charter' aims to create a beneficial work environment, full of respect and responsibility in the Institute, it clearly describes ethical behaviours. Ethical Commission is established on the basis of an order, and it shall assess complaints regarding a failure to comply with the core principles of professional ethics and conduct. 'Plagiarism control rules of the transport and telecommunications institute' regulate the prevention of plagiarism cases at the university. In this document, it is stated that 'examination of the paper in the anti-plagiarism system may be initiated for identification of plagiarism'. It means the identification of plagiarism via the anti-plagiarism system is not compulsory, and it is a supervisor/lecturer who decides to start the procedure of identification of plagiarism or not. We highly recommend introducing the identification of plagiarism as a compulsory procedure for all course works and final thesis. During the onsite visit, the experts' commission was informed that the university is in the search process of the new anti-plagiarism system.

The information published on the website of the higher education institution/ college regarding the relevant study programmes of the study direction complies with the information available in the official registers. It provides important information for the candidates and the students and is published in all languages in which the study programmes are implemented.

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## **Conclusions. Strengths and weaknesses**

Study direction 'Management, administration and real estate management' has clearly defined attainable goal, which well-suites the new TTI Vision. With the implementation of a new period strategy, starting from 2021, the study direction is assigned with a supplementary (horizontal) mission at TTI – to provide management and leadership competence education across all other study directions at TTI. So, its importance in the overall portfolio of study directions is growing up.

Strengths:

- The distinctive feature of the graduates is an interdisciplinary understanding of management in the context of new technological developments.
- TTI has a well established and viable administrative and technical support system.
- The university ensures the broad spectrum of learning methods

Weaknesses:

- Employers and students expressed the need to strengthen development of management competences, and specifically in the areas of traditional marketing, risk management, safety, security, ethics, and social responsibility.
- There are some doubts regarding decision making process. The study programme directors don't have real power to develop the study programme.
- All presented syllabuses demonstrate that for the evaluation of students' achievements, mainly test or exam is used.

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

### **Analysis**

TTI has established the quality policy, which is documented and approved by directive Nr.01-12.1/57A on October 29, 2018. The policy is publicly available on the TTI website [https://www.tsi.lv/sites/default/files/editor/Dokumenti/Oficialie\\_Dokumenti/kvalitates\\_politika\\_.pdf](https://www.tsi.lv/sites/default/files/editor/Dokumenti/Oficialie_Dokumenti/kvalitates_politika_.pdf).

TTI quality assurance system is developed, maintained and implemented in accordance with the requirements of the international standard ISO 9001: 2015;

The quality manual (in some places called Quality Handbook) is the main document of the TTI quality management system; it includes quality policy, assurance system, processes, indicators and complies with ISO standard 9001:2015. Compliance with all procedures described in the quality manual ensures the achievement of the aims and learning outcomes of the study direction and the study programmes.

The system ensures continuous improvement and development, which is evident from such processes as "Management of personnel qualification development", "Data analysis and quality issues", "Development planning", etc.

The system also ensures efficient performance of the study direction and the relevant study programmes, for example, through processes "Implementation of the study programmes", "Internal quality audits" etc.

The procedures for the development and review of the study programmes (above-mentioned examples) are defined and, according to discussions with programme directors and head of study direction, also implemented. Feedback to students is provided regularly and in different forms in accordance with the study course specifics (for example face-to-face; on MOODLE; per feedback) and students confirm that they are logical and efficient. Employers are involved in study programmes development and implementation. For example, programme "Aviation Management" is developed in very close relationship and maximum input form employers.

It is not clear how feedback to graduates is provided, however, as confirmed by graduates, they are

involved and invited to open lectures (as lecturers as well as listeners) and other events.

TTI collects and analyses the information (statistics) on the study programmes as it is described in the quality process, for example, "Researching consumer demands and satisfaction" and "Data analysis and quality issues". All the required statistics on students and graduates are included in the self-assessment report. Students confirm that they regularly have to fill in surveys about the quality of the study courses and corrective actions are taken if required. Students generally seem to be very satisfied with the quality of the studies. Feedback from student surveys is regularly analysed in department meetings and discussed with the relevant academic staff members. It is part of the annual attestation of academic personnel.

The higher education institution/ college has identified the standards set forth in Part 1 of the ESG, which require special attention. Currently as an area which requires special attention Student-centred learning, teaching and assessment is identified. The current situation ensures compliance with this area, however, according to the management team, there is a place for continuous improvement. The study programmes are delivered in a way that encourages students to take an active role in creating the learning process and different modes of delivery are used, for example, simulations, case studies. Pedagogical methods are adjusted to the students' needs and students admit that they are interesting and encourage a sense of autonomy and adequate guidance and support from the teacher is in place.

Mutual respect within the learner-teacher relationship is ensured. TTI has established procedures for dealing with students' complaints, however, there are not many complaints. Free and open communication Problems are solved immediately based on free and open communication between students and the programme director (both sides support this).

The management team stated that they work a lot to ensure student well-being and personal development. Mentoring programme for foreign students is in process of development. The programme includes assigning a mentor to each incoming foreign student - member of the staff and/or student from the same region as the newcomer. This is expected to improve individualised attitude towards students, who are very diverse in terms of represented countries and individuals' background.

TTI quality assurance systems include long term and short term aims, however only until 2020. This is explained by the strategy - current strategy is until 2020. New strategy is being developed and will be approved soon. Thus, it can be expected that quality assurance aims will change as well.

Quality handbooks include processes and measures which allow to evaluate the achievement of the aims, for example, long term aim "Infrastructure Excellence" relates to the quality management process "Managing infrastructure and productive environment". However, Quality standards set for Research does not include quality criteria for the Research output (the set KPIs are more related to quantity).

## **Conclusions. Strengths and weaknesses**

TTI has established a quality policy and has developed and maintains a quality assurance system. It contributes to the achievement of the aims and learning outcomes of the study programmes and study direction. The system ensures continuous improvement, development, and efficient performance of the study direction and the relevant study programmes.

The procedures for the development and review of the study programmes of the study direction and the feedback mechanisms (including feedback to students, employers, and graduates) have been defined and they are logical, efficient, and available for all stakeholders. TTI collects and analyses the information (statistics) on study programmes of the study direction on a regular basis and uses it to improve the study direction.

TTI has identified the standards set forth in Part 1 of the ESG, which require special attention. TTI has determined aims and measures, which are integrated in a joint quality assurance system. All in

all, TTI complies with Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG).

Strengths:

- Compliance with international standard ISO 9001: 2015;
- Student overall satisfaction with teaching and learning processes;
- Process of continuous improvement is supported and implemented throughout the study division.

Weaknesses:

- Quality standards set for Research does not include quality criteria for the Research output (the set KPIs are more related to quantity).

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

#### **Analysis**

TTI has developed a financing system, including resources and provision. TTI budgeting is performed both in the short term and in the long-term investments. Positively, that study materials, costs of scientific infrastructure increased significantly and in 2019 has reached 10% of the budget of the Faculty of Management and Economics. The scientific-research budget is planned to cover the promotion of scientific and research activities of faculty and lecturers - to pay for publications and conferences, exchange visits, as well as for international cooperation activities and membership fees. This is also good motivator for lecturers. The positive financial results of the last years allowed one to allocate additional funds for the implementation and development of study programmes, as well as for the use of study materials and scientific infrastructure. Currently, these cost items make up 17% of the total costs, which is almost fifth of all TTI budget.

Study infrastructure is appropriate and available for every native and foreign student, staff member, guest-lecturer, administrative block. TTI also provides an outsourcing option for the gym and sports hall. All involved groups - native and foreign students, distance students, graduates, academic staff marked only positive about the Moodle system, which is understandable, practical and useful for everyone. TTI provides modern-equipped audiences, computer classes, a special room for video lectures and other materials for on-site, off-site and distance learning departments with recording options. All classrooms are equipped with a student registration system for classes that enables the automatic registration of students attending lectures and allows one to control attendance. It is especially necessary for foreign student control. Students and academic staff have their recreational area, where they can eat, drink coffee, and prepare for lectures and tests. TTI also provides a library and electronic reading room with 15 desktop computers and 15 working sites for personal smart devices. An individual electrical connection is provided for each working site. Students in the field "Management, Administration and Real Estate Management" have the opportunity to use the library's collection, which is mainly based on publications issued after 2008. Of the total collection, in the management, economics, finance and marketing fields, there are 3415 book titles, about 50 e-books, and 12 print magazine titles. 10% of library collection e-books are less than five years old. Also, the library gives an option that an unlimited number of users can use one e-book at the same time so that e-books can be used for every student in every time, also at home or other places with a special pass. For scientific research of publications, TTI provide EBSCO, Science Direct, SCOPUS databases.

TTI distance learning process is well-equipped with resources (for example, special room for video lectures and working with distance students; electronic databases and e-books) as well as administrative team, who is always ready to answer questions and support distance learning students.

For the introduction of TTI including library, study field, etc, new native and foreign students participate at "welcome week", where they can find out any actual information. For new colleagues-lecturers TTI provide handbook about all actual and necessary information. Individual consultation

about databases and library collections received more than 100 times. Every month lecturers have methodological seminars; several times per year, TTI provides self-development courses for lecturers. Nineteen people from academic staff use the possibility to improve their English language, which is provided by TTI. The budget for all library collections is 12000 EUR. For reading books and e-books - 6500EUR, data basis - 2500EUR, periodicals - 2600EUR. The division of specific literature depends on the number of study programmes of each faculty. Each year, every faculty submit a list with necessary literature.

The needs of the teaching staff for professional and didactic improvement are identified in a target-oriented manner. Appropriate improvement measures are undertaken, and the outcome and efficiency of the implemented measures are assessed. The selection or election of the academic staff is carried out in several stages, which is determined by certain procedures. The process of recruitment and evaluation of lecturers is transparent and effective. According to Cabinet of Ministers Regulation No. 445 and the TTI Regulation on the Remuneration of the Academic Staff, the full-time academic staff are assigned annual workload that includes teaching hours, which is the reflection on the pedagogical work, and the rest of the academic workload comprises scientific, organizational and methodological activities. Professors and associate professors have been doing more serious work in science, conducting research and have been less involved in the study management and provision process, whereas assistant professors and lecturers are more engaged in teaching. Total workload hours for all teaching staff is 900 per year and division of academic and teaching load depends of academic position. In addition to the workload hours for teaching load, research work is conducted in projects carried out outside main working hours of staff and is separately remunerated. Lecturers participate in outgoing ERASMUS+ mobility. During the last 5 years, there are 22 outgoing mobility cases to different universities abroad.

TTI provides support for every student. First of all, foreign students have a group coordinator. If students have a proposal for any questions, they can reach management through group leaders or programme directors. The student council offers support for all students. Positively, that 70% of the members of the Student council are foreign students. They are open for every help and needs. Students assess that taking part in research work, they get extra points for yearly evaluation in research study courses. Also, TTI provides students with helpdesk or department, which helps native and foreign students with any question, starting from schedules and consultation about visas. Every year TTI has a career day for all students, where they can introduce employers and actual information about their professions. TTI is also ready to provide learning services for the students with special needs (stairs for wheelchairs, elevator).

## **Conclusions. Strengths and weaknesses**

All in all, TTI has good resource base and the students and the teaching staff have access to the necessary resources to ensure the quality of teaching an learning process.

Strengths:

- TTI is well equipped in study process. Well-equipped study field is one of the motivators for students and academic staff.
- Well-equipped library which include EBSCO, Science Direct, SCOPUS databases, and about 50 e-books, for unlimited number of users who can use one e-book at the same time – this ensures that also distance learning students have access to library resources.
- Nice electronic reading room with 15 desktop computers and 15 working sites for personal smart devices available for students' individual work.
- Well-equipped study process which serves as one of the motivators for students and academic staff.
- Well organised students` orientation process (welcome week for students and handbook for new lectures)

Weaknesses/suggestions:

- Not all lecturers have any publications (16 of all CV is not included or even do not have at least one publication)
- Moodle system connecting with app
- Place for bicycles
- Replaced e-books with newest editions (at least 50%, instead 10% what they have right now)
- Increase percentage of library collection with last 5 years literature.

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

##### **Analysis**

The Research Strategy Vision of the Institute states that the goal of the Institute is to address fundamental and strategically important questions and to deliver economic, social and cultural impact at regional, national and international levels. The directions of research activities are ICT, Smart Solutions in Transport and Logistics and Digital Society and Economy.

The Institute has specified some long-term strategic goals and the first goal is excellence in research, which is defined as high-quality research integrated into the study process with broad involvement in international, national and sectoral research programs that promote technology transfer and innovation development.

According to the self-assessment report in order to attain the defined long-term strategic goals, the Institute has set five challenging medium-term goals. To address these goals, the Institute emphasizes the importance of scientific research and they have taken several measures, including incentives to the academic staff, to increase the number of publications. The Institution is aiming to attract foreign staff members but so far they have not been very successful.

The directions of scientific research are in line with the development aims of the TTI and relevant to the study direction.

According to the self-evaluation report the international cooperation in the field of scientific research the study direction and the relevant study programmes is conducted through cooperation agreements with foreign scientific institutions and participation in joint scientific projects for ex. EU funded programmes (there are at least 11 examples mentioned in the Report). Future plans for the development of international cooperation in scientific research include tangible and relevant measures.

Mechanisms for the involvement of the teaching staff in scientific research are listed in the Research Quality Manual. Research activities are included in job descriptions and payment for scientific activity is specified in the TTI Remuneration Rules for teaching staff. The Research Department creates guidelines and supports research in the institute and in all its faculties. The monitoring of the research activities on the faculty level is conducted by reporting practices. According to the interviews the faculties report their research activities annually and do self-assessment.

Research activity is supported by TTI International Scientific Advisory Board, which includes international team of advisors. They assess the research progress report and advise on strategic development and priorities.

TTI publishes two internationally cited journals what is also a good motivation for teaching staff since they can publish their research outputs.

Taking into consideration the number of teaching staff research publication in assessment period (387 as presented in the Annex 14) the mechanisms for research development are well-functioning and efficient.

Mechanisms to promote the involvement of the students in scientific research include a course specific projects and annual research conferences. The students mentioned their involvement in different research activities, but especially stressed the annual research conference. The research conferences organized in-house get students involved in presenting their thesis papers. This seems

to be a very effective and innovative practice. Faculty members also confirmed that the research activities are a part of the study process and specifically the master programme students confirm that they are involved in the research projects.

The inclusion of research methods in the curriculum of the Bachelor Programme seems not to be adequate. Now research methods are part of Introduction to Studies in Economics and Business Science 3 ECTS course. Even though there is an explicit emphasis on scientific research in the Institute.

Research activities and participation in international research projects have resulted in creation of innovative solutions in the study process. Several examples were mentioned – new study course ‘Sustainable aviation’ with multimedia teaching materials, development of programme modules devoted to green economy, and other.

## **Conclusions. Strengths and weaknesses**

The Institute has specified some challenging goals in research, and they are taking actions to reach these aims. Involvement in international research projects should be enhanced. The need to increase international cooperation is recognized but measures to tackle this challenge have not been very successful. Stronger emphasis on research methods also in the bachelor programme could be recommended.

Strengths:

- Strong commitment to research on all levels of the organization;
- Incentives for academic staff members for publications.

Weaknesses:

- International cooperation could be more active and livelier.

## **5. Cooperation and Internationalisation**

### **Analysis**

TTI has established strong cooperation with different institutions from Latvia and abroad. The main HEI partners are private enterprises, government organizations, NGOs, HEIs, and scientific institutions (15. Appendix: Cooperation Agreements). The accreditation process experts identified that TTI has cooperation agreements and projects that ensure internship places for students, the involvement of employers and professionals in the study process as well as in-state examination commissions procedures. In cooperation with business organizations developed joint research projects which are relevant for industries. The teaching staff of the faculty provides consultations and professional development courses in the cooperating companies.

TTI Career days are organised every year to promote cooperation with the employers' organisations and to increase the competitiveness of TTI students in the labour market.

The lecturers and students of TTI and other higher education institutions cooperate in scientific and academic conferences, seminars.

The international cooperation generally based on ERASMUS+ projects, where the main activities are students and academic staff exchange, the attraction of guest lecturers (17. Appendix: Statistical data on the teaching staff and the students from abroad; 16. Appendix: Statistical data on the mobility of students (by specifying the study programmes)).

Partner universities are selected on the basis of the available information on equivalent study programmes and the language of study. One of the main conditions is the coordination of study subjects during the student exchange programme.

System or mechanisms, which are used by TTI to attract the students and the teaching staff from abroad is efficient and generally based on ERASMUS+ exchange projects as well as participation in

international education exhibitions, collaboration with agencies, school visits and digital marketing. For the academic year of 2019/2020 and the following years, foreign educators have been attracted within the framework of the European Social Fund project Strengthening the Academic Staff of the TTI in the Areas of Strategic Specialisation (No. 8.2.2.0/18/A/011).

During the onsite visit with bachelor students from the TTI programme of Business and management, accreditation experts found that students' decision to choose TTI as the next step in their education are recommendations of friends and acquaintances who have graduated TTI.

Foreign students' recommendation:

TTI has to take the opportunity to disseminate information about TTI among HEI involved in the ERASMUS+ programme.

In the study direction "Management, administration and real estate management" from three study programmes only the professional Master's programme 'Aviation Management' corresponds with the Regulations on the Second Level Vocational Education Standard, includes an internship with 26CP.

The internship has being organised (18.1.Appendix: Rules on the procedure for the organisation of the internship of students of TTI) in accordance with the study plan and the calendar plan of the internship, in order for students to acquire practical work skills and strengthen theoretical knowledge, skills and know-how acquired during the study process. Internships procedure comply with agreements (19. Appendix: Cooperation agreements on ensuring internship placement) between TTI, students and companies where the students undertake their internships. The TTI Corporate Clients Department responsible for organisation of internships, gathering information about the cooperating companies that provide internships. Students are able to independently select the place of internship by submitting a document to TTI regarding the consent of the company to organise the internship of the relevant student in the company. At the end of the internship, the student prepares a report on the internship results, developed in accordance with the Methodological Guidelines for the Internship, attaching the internship diary and a reference of the company internship supervisor to the report.

Joint study programmes have not yet been established at the Transport and Telecommunication Institute.

## **Conclusions. Strengths and weaknesses**

TTI has established strong cooperation with all stakeholders. TTI has developed a system (Involvement of partners in the implementation of the study direction) and procedures for the attraction of the teaching staff and students from abroad within the study direction which are efficient and contribute to the improvement of the study process.

Strengths:

- TTI has a competitive advantage in the Baltic HEI education market by the provision of study programme Aviation management, which allows ensuring high demand for certain competencies in the labour market in the near future.
- TTI has strong cooperation with industry companies and experts in Latvia
- TTI ensures the internships for the professional Master's programme "Aviation Management" in cooperation with industry
- TTI has International study environment which attract new students

Weaknesses and suggestions:

- TTI has not established joint study programmes.
- TTI could expand cooperation with employers in terms of regularly organized surveys about trends and expectations of the labour market.
- TTI has to take the opportunity to disseminate the information about TTI among HEI involved in ERASMUS+ programme.

- TTI has to expand cooperation with internationally recognised teachers and industry experts relevant for the study directions programme.
- TTI could establish joint study programmes with European HEI in the next three years.

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

### Analysis

Previous accreditation of the study direction took part in the year of 2012. Since 2012 portfolio of study programmes in the study direction was broadened, thus a new study programme ‘Aviation Management’ went through the licensing procedure in September of 2017. Consequently, recommendations of two expert groups had been implemented before the current evaluation.

Recommendations of the expert commission of the 2012 were mainly oriented towards the hygienic corrections of the study programmes, such as proper usage of the programme title, the appropriate translation of the course titles, broader coverage of management-related topics, as well as a rearrangement of the evaluation system. During the certification of programme ‘Aviation Management’ gave recommendations for the improvement of programme management procedures. Recommendations of both expert commissions were implemented according to the plans which were prepared after the accreditation process.

### Conclusions. Strengths and weaknesses

Almost all the recommendations were implemented straight after the accreditation process. During an onsite visit, the expert group got evidence about the implementation of the plans. An expert commission of 2012 emphasized the need to review an evaluation system. It was recommended to finalize the course with the evaluation during the exam with open-ended questions. Current (of 2020) expert commission recommends changing the requirements for the evaluations of the study module, as the current system, which requires for the evaluation of the 2 ECTS module to use test and for 4 ECTS – exam, doesn’t correspond with the student-oriented learning conception. This recommendation doesn’t mean that an exam as an evaluation form should be avoided; it instead means that an exam can be one of the summative evaluation forms.

Strengths:

- Most of the previous accreditation recommendations were implemented straight after the accreditation process and it gave a visible progress for study process development.

Weaknesses: Not identified.

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

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

**Assessment of compliance:** Fully compliant

**Justification:** The culture of continuous improvement was evident in TTI during the visit.

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

**Assessment of compliance:** Fully compliant

**Justification:** The quality policy is documented and approved by directive Nr.01-12.1/57A in October 29, 2018. TTI quality management system is certified according to ISO 9001: 2015.

- 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:** Fully compliant
- Justification:** The procedures are specified in the TTI “Regulation on Management of the Fields of Study and Study Programmes” and “Regulation on Management of Study Courses” which comply with the Cabinet Regulation No. 795 of 11 December 2018 Regulations on Licensing of the Study Programmes.  
Effectiveness of the process can be improved.
- 4 1.3. The criteria, conditions, and procedures for the evaluation of students’ results, which enable reassurance of the achievement of the intended learning outcomes, have been developed and made public.
- Assessment of compliance:** Fully compliant
- Justification:** They are indicated in the course descriptions and made available to the students on Moodle platform.  
Some corrections in the evaluation system could be recommended.
- 5 1.4. Internal procedures and mechanisms for assuring the qualifications of the academic staff and the work quality have been developed.
- Assessment of compliance:** Fully compliant
- Justification:** The selection of the academic staff is governed by the “Regulations on the Selection of Academic Staff by a Competition”. The quality of work is ensured by the annual attestation procedure of the academic staff.
- 6 1.5. The higher education institution/ college ensures the collection and analysis of the information on the study achievements of the students, employment of the graduates, satisfaction of the students with the study programme, efficiency of the work of the academic staff, the study funds available and the disbursements thereof, as well as the key performance indicators of the higher education institution/ college.
- Assessment of compliance:** Fully compliant
- Justification:** Performed according to the procedure “Regulations for Organising Surveys of Students, Graduates and Employers” which is approved at the meeting of the TTI Senate on 29.10.2019.
- 7 1.6. The higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study direction whilst implementing their quality assurance systems.
- Assessment of compliance:** Fully compliant
- Justification:** The TTI quality management system includes a regular quality audit procedure, as well as a related corrective action procedure to address non-conformities identified. The ISO 9001: 2015 standard provides a systemic approach to handling quality assurance and continuous improvement.
- 8 R2 - The cooperation with different organisations from Latvia and abroad implemented within the study direction ensures the achievement of the aims of the study direction.
- Assessment of compliance:** Fully compliant
- Justification:** 39 Erasmus+ agreements with foreign HEI and 34 Cooperation agreement s with private enterprises, government organizations, NGOs, HEIs, and scientific institutions serve as evidence of cooperation.
- 9 R3 - Compliance of scientific research and artistic creation with the development level thereof (if applicable).
- Assessment of compliance:** Fully compliant
- Justification:** Evidence of 22 scientific research projects; 11 contract research activities and 387 scientific publications has been presented as evidence of scientific research activity of the academic staff.

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

**Assessment of compliance:** Fully compliant

**Justification:** Recommendations of both expert commissions were implemented according to the plans which were prepared after the accreditation process.

## 8. Recommendations for the Study Field

### Short-term recommendations

● To introduce the identification of plagiarism as a compulsory procedure for all course works and final thesis. ● To flatten the study direction management decision making process with an aim to give real power to the study program director to implement his/her responsibilities. ● To change the requirements for the evaluations of the study module. Current system, which requires for the evaluation of the 2 ECTS module to use test and for 4 ECTS – exam, doesn't correspond with the student-oriented learning conception. ● To consolidate learning outcomes -minimize the number of learning outcomes and align them with LQF and EQF. For master programme "Aviation management" include learning a outcome related to ERS (ethics, social responsibility and sustainability). ● To review 'Transport and telecommunications institute Study procedure regulations' with the aim to ensure the use of broad spectrum of evaluation methods for the evaluation of students' achievements. ● Corporate social and environmental responsibility, and Risk management should be included in the curriculum of study programmes as a separate course or as a part of study courses. ● To improve study programme quality and relevance monitoring by extended variety of monitoring methods (e.g. roundtable discussion, in-depth interviews, trend analysis). ● Formalisation of the collaboration processes between faculty members, corporate stakeholders and programme alumni should be developed (in a form of Programme Committee or other).

### Long-term recommendations

● Explore the possibilities of international cooperation that would offer the students more opportunities for international exchange -to expand directions for Erasmus+ exchange. ● To establish PhD programme in the area of Business Administration a logical continuation of Master degree programme. ● To prepare methodological guidelines for academic staff about learning outcomes evaluation, which explain the relationship between learning outcome, learning method, and evaluation form. ● To review quality standards set for Research by including quality criteria for the Research output ● To expand cooperation with internationally recognised teachers and industry experts relevant for the study directions programme. ● To consider establishing joint study programmes with European HEI.

## II. ASSESSMENT OF THE STUDY PROGRAMME "Aviation Management"

### II. ASSESSMENT OF THE STUDY PROGRAMME "Aviation Management"

#### 1. Indicators Describing the Study Programme

##### Analysis

The professional master study programme 'Aviation management' envisages acquisition of provides

corresponding professional master's degree in Aviation Management and the professional qualification 'Organization Manager'. The name of the programme, the degree and professional qualification are logically interrelated. Aim of the programme and its six objectives are logically linked with the name, degree and qualification. Programme admission requirements are corresponding to master programme in aviation management field and are in line with Articles 46 and 47 of the Law on Higher Education Institutions and Regulation of the Cabinet of Ministers No. 846 of October 10, 2006 on Requirements, Criteria and Procedures for Admission to Study Programs. However, as indicated in the programme self-assessment report, 60 KP programme version does not envisage acquisition of any professional qualification. Still, as indicated by programme director, this is a mistake and all students will get the same Diploma with the same professional qualification 'Organization Manager'.

Programme Intended learning outcomes are formulated as knowledge, skills and competences which are in line with Latvian and European qualification framework (LQF and EQF) Level 7. However, the number of learning outcomes is somewhat too high - there are in total 20 learning outcomes (knowledge area - 6; skills - 8; competences - 6). The general guidance in the literature is that there should be 5 -10 learning outcomes for a programme and that only the minimum number of outcomes considered to be essential be included. In the current version learning outcomes look sooner like the study course-specific learning outcomes.

Analysing the programme 'Aviation management' learning outcomes` relevance to LQF and EQF Level 7 descriptors (see <http://www.nki-latvija.lv/content/files/LQF-level-descriptors.pdf>), some important aspects seem missing. For example:

Skills required to develop new knowledge .... (EQF and LQF)

Competences: ability to guide independently the improvement of one's own competences and specialisation, to assume responsibility for the results of staff and group work ...(LQF);

.... ability contribute to the creation of new knowledge, research or the development of new professional working methods...(LQF);

... demonstrate understanding and ethical responsibility for the possible impact of the scientific results or professional activity on the environment and society (LQF).

It should be noted that programme 'Aviation management' learning outcomes do not include a word about ERS (ethics, responsibility and sustainability), so it is not clear whether programme management considers these aspects as an important part of students` competences and whether students gain ERS related competences.

Study programme from the beginning of its practical (September 2018) has been delivered in English language only and in full time and part time form. Currently there are 5 part-time students pursuing their education in the modular mode (stated in SAR as extramural studies). There is no distance learning option.

### **Conclusions by specifying the strengths and weaknesses**

- The professional master study programme 'Aviation management' name, the degree and the professional qualification to be acquired, the aims, objectives, and admission requirements are interrelated and can be regarded as programme strengths.
- Programme learning outcomes lack some important aspects relevant to LQF and are too many. Especially lack of ERS related competences indicates weaknesses in the formulation of learning outcomes.

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

### **Analysis**

The descriptions of the study courses are of good quality and include all the required information e.g. course aims, learning outcomes, course content and planned hours, recommended literature and additional sources of information, organisation of the independent studies, assessment structure and course value in credit points and ECTS.

The descriptions of the traineeship, or Practice-1 and Practice-2 are very general and very similar. For example, aims of both practices are identical. Learning outcomes are slightly different in terms of knowledge, but skills and competences are identical. Practice-1 is mentioned as a prerequisite of Practice-2, however, if intended learning outcomes (skills and competences) are identical, then why is the second practice needed? More specifics and more detailed description of the Practices could be recommended.

The programme has been developed in cooperation with aviation industry specialists - e.g. Member of the Board and the Commercial Director of the SJSC Riga International Airport, and Advisor to the Chairman of the Board of Riga International Airport. They participated in the accreditation meeting and seem very passionate about the programme and involved in its realisation.

This ensures that the content of study courses meets the needs of the aviation management industry. Although the programme is professional, it has a strong research focus which is justified by industry needs (a study module of 6 credit points called Research Methods and Project Management), so the programme very well meets the scientific trends. All study courses are relevant and complementary, they comply with the aims of the study programme and ensure the achievement of the learning outcomes.

The study implementation methods are diverse. Lecturers mentioned Project based learning, which can result in a video or a competition; Business games; Podcasts; use of modern software (e.g. CRM; Power BI) etc. Alumni approved that 100% lecturers use the MOODLE in variety of ways and pedagogical methods are diverse and interesting.

Evaluation methods of each study course are indicated in the course syllabus and are also diverse. Both formative and summative assessments are used. All assessment activities are related to and cover course learning outcomes. Composition of the evaluation is specified in the course description - about 10% allocated to participation; tests are mainly computer-based, multiple-choice and provide 20-30% of the grade; for cases usually, essays are used; peer assessment is used in some courses.

The director of the programme seems to be very motivated and passionate and have good contact with all the students. Student-centered education principles seem to be implemented, especially because the number of students in the programme is still quite low (There are currently 5 full-time students in the second year, 10 full-time students in the first year and 5 part-time students pursuing their education in the modular mode).

The student surveys take place after each study course and academic year. The results of the surveys are discussed with faculty members, in department meetings and included in faculty attestation. The programme is implemented only the second year and there are no graduates yet, therefore, surveys cannot be conducted among employers and graduates. Employers needs are taken into consideration since they are involved in the programme design.

In general, it is evident that the outcomes of the surveys conducted among the students are used to improve the quality of studies. We can expect that the same will happen with graduates and employers, surveys when they will be available.

Since the programme is very new, only one student has participated in the outgoing mobility programme and there was no incoming mobility yet. The students confirm that they are informed about the incoming and outgoing mobility opportunities, and that the learning outcomes achieved during such mobility are recognised.

## **Conclusions by specifying the strengths and weaknesses**

The descriptions of the study courses and the final thesis are of high quality and comply with the provisions set forth in the regulatory enactments. The content is relevant and complementary, and it complies with the aims of the study programme, ensures the achievement of the learning outcomes, and meets the needs of the relevant industry and the scientific trends. More precision in the description of Traineeships (Practices) can be recommended.

Programme 'Aviation Management' study implementation methods, including the evaluation methods, contribute to the achievement of the aims and learning outcomes of the study courses and the study programme. Student-centred learning and teaching principles are taken into account.

The students avail themselves of the incoming and outgoing mobility opportunities, and the learning outcomes achieved during such mobility are recognised.

The outcomes of the surveys conducted among the students are used to improve the quality of studies. There are no employers and graduates surveys yet.

#### Strengths

- Unique study programme in the Baltic States
- Academic staff has industry professionals
- Good cooperation between the study programme and industry

#### Weaknesses

- Only one cooperation agreement with other airports in Europe/Asia
- Limited possibilities for student mobility related to the programme specifics

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

#### **Analysis**

Resources relevant to the study programme 'Aviation Management' include the Academic and Professional Aviation Centre (APAC), which provides mainly theoretical and practical training and offers examinations in specialized aviation courses. The APAC Aircraft A320 Simulator is used in training within the course Aircraft Maintenance Management. The Applied Software System Laboratory, which provides TTI students, lecturers and researchers with the access to software products, including simulation tools, such as PTV VISSIM & VISUM, which is designed for transport flow modelling, AnyLogic, which is a universal modelling software, Aris, BPWin, Business Object, which is a business process modelling software, R, SPSS, STATISTICA, MatLab, Maths etc., which are various software packages developed for data processing and mathematical calculations.

All involved groups - native and foreign students, academic staff marked only positive about the Moodle system, which is understandable, practical and useful for everyone. The Moodle system is used by 100% of academic staff. TTI provides 12 audiences at all, including 3 modern-equipped audiences, 10 computer classes, 20 classrooms for practical and laboratory classes, a special room for video lectures and other materials for on-site, off-site and distance learning departments with recording options. All classrooms are equipped with a student registration system for classes that enable the automatic registration of students attending lectures and allows one to control attendance. It is especially necessary for foreign student control.

Informative provision, including libraries, comply with the specific features and the conditions for the implementation of the study programme. For scientific research of publications TTI provides EBSCO, Science Direct, SCOPUS databases. Library provides scientific magazines like IEEE Aerospace and Electronic Systems Magazine, IEEE Engineering Management Review, IEEE Transactions on Education, Air Traffic Technology International, The Journal for Civil Aviation Training, ICAO Journal, Jane's Airport Review.

The most interesting and unique using methods which are positively assessed from students and staff is transport modelling, business game "Airport", which is a great simulation of real-life

situations. It shows how to cooperate successfully between departments in the airport, thinking critically and making fast and right decisions. For the development of this aviation management, study programme has involved in international ERASMUS+ project "Spread your wings", which include programme of the International Aviation Academy along with teaching materials, the course program "The development of sustainable aviation", e-learning modules, a case book "Sustainable development of international aviation", podcasts, multimedia lectures and simulations.

### **Conclusions by specifying the strengths and weaknesses**

In general, the study foundation, information base (including libraries), material and technical base and financial foundation correspond to the specifics of both the study program and implementation conditions and create preconditions for the achievement of study outcomes, thus, demonstrating the ability to ensure the delivery of high-quality study process.

Strengths:

- Strong material and technical resource base which include simulators, laboratories and applied software systems;
- Modern library, especially the reading room, which is available for students` individual work.

Weaknesses/suggestions:

- Develop cooperation for internships with other airports in Europe and Asia

## **4. Teaching Staff**

### **Analysis**

The programme 'Aviation management' is new and there were no changes in the composition of the Teaching staff yet. Programme is delivered by highly professional academic and professional teaching staff.

The study programme is implemented by 7 TTI elected lecturers and 7 visiting lecturers - 14 in total; 9 of them, or 64% has PhD. This includes 4 professors and 1 associate professor. Some of the courses are delivered by invited lecturers - industry professionals. Moreover, 2 of the invited faculty members hold PhD.

This shows that the qualification of the teaching staff members involved in the implementation of the study programme "Aviation management" complies with the requirements for the implementation of the professional study programmes and the requirements set forth in the regulatory enactments, and it enables the achievement of the aims and learning outcomes of the study programme.

Academic staff seems to be highly involved in scientific research what is evident from:

1) the projects presented in the Appendix 13 which includes 22 of scientific projects between 2103 and 2019; and 11 episodes of contract research. Out the them as examples related to the study programme "Aviation management" the following can be mentioned: "Traffic impact assessment for airport development scenarios", "COST Action TU1408 Air Transport and Regional Development (ATARD)".

2) academic publications of programme faculty as presented in the Appendix 14. The list of academic publications of 7 elected academic staff members teaching in the programme "Aviation management" in the time period 2014 - 2019 range from 6 to 47 publications per faculty member. The topics of the publications are generally related to the courses delivered by the academic staff members.

3) Programme students also confirm that faculty research is frequently discussed in the classes and students are encouraged to take part in research projects.

The professional Master programme "Aviation Management" is implemented by lecturers from different departments and different areas of science because the study program incorporates not only classical management courses but also interdisciplinary (integrated) courses. As the program is professional, the delivered courses are interdisciplinary and have been developed and implemented by TTI lecturers, foreign academic staff and industry professionals specializing in aviation management.

The existence of cooperation was confirmed by academic staff members and representatives of the industry and it seems that it takes place. However, there is no evidence of formal mechanisms of such cooperation.

Programme is new and the faculty members seem to be very enthusiastic about it, however, in future it can be recommended to put in place some more formal mechanism of cooperation, for example, programme committee meetings once per semester.

### **Conclusions by specifying the strengths and weaknesses**

Programme 'Aviation management' is delivered by the teaching staff, which was initially planned, no changes yet.

The qualification of the teaching staff members involved in the implementation of the study programme 'Aviation Management' complies with the requirements for the implementation of the study programme and the requirements set forth in the regulatory enactments, and it enables the achievement of the aims and learning outcomes of the study programme and the relevant study courses.

The academic staff is highly involved in scientific research both at the national and international levels. The research outputs are used in the study process.

There is a mutual collaboration between the teaching staff members in place, which contributes to the improvement of the study courses and their correlation, however, more formal mechanisms could be recommended.

Strengths:

- High qualification of the teaching staff, high percentage of Ph.D.;
- Scientific research of the programme faculty;
- Enthusiasm and motivation of the teaching staff.

Weaknesses:

- No formal mechanism of collaboration between faculty members, although collaboration seems to take place. Formalisation of collaboration processes could be recommended.

## **5. Assessment of the Compliance of the Study Programme "Aviation Management"**

### **Requirements**

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

**Assessment of compliance:** Fully compliant

**Justification:** Diploma provided in the Appendix 51

2. Documents confirming that the higher education institution/ college will provide the students with the options to continue the acquisition of education in another study programme or at another higher education institution/ college (a contract with another accredited higher education institution/ college), in case the implementation of the study programme is discontinued.
- Assessment of compliance:** Fully compliant
- Justification:** Agreements about possibilities to continue the education is signed with: Business School TURĪBA, Professional Master's study programme, Business Administration, 47345; Baltic International Academy Professional Master's study programme Business Management and Administration, 47345
3. Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme.
- Assessment of compliance:** Fully compliant
- Justification:** Attestation provided in the Appendix 49
4. The teaching staff members involved in the implementation of the study programme are proficient in the official language in accordance with the regulations on the level of the official language knowledge and the procedures for testing official language proficiency for performing professional duties and office duties.
- Assessment of compliance:** Fully compliant
- Justification:** CV of the teaching staff indicate the proficiency of the official language.
5. The teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language, if the study programme or any part thereof is to be implemented in a foreign language.
- Assessment of compliance:** Fully compliant
- Justification:** Attestation provided in the Appendix 50 and evident from the discussions during the accreditation visit.
6. At least five teaching staff members with a doctoral degree are among the academic staff of an academic doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field of science. At least five teaching staff members with a doctoral degree are among the academic staff of a professional doctoral study programme in arts.
- Assessment of compliance:** Fully compliant
- Justification:** Not applicable
7. The academic staff of the academic study programme complies with the requirements set forth in Section 55, Paragraph one, Clause 3 of the Law on Institutions of Higher Education.
- Assessment of compliance:** Fully compliant
- Justification:** Not applicable
8. The sample of the study agreement complies with the mandatory provisions to be included in the study agreement.
- Assessment of compliance:** Fully compliant
- Justification:** Attestation provided in the Appendix 52
9. The descriptions of the study courses and the study materials have been prepared in all languages in which the study programme is implemented, and they comply with the requirements set forth in Section 56.1, Paragraph two and Section 56.2, Paragraph two of the Law on Institutions of Higher Education.
- Assessment of compliance:** Fully compliant

**Justification:** The descriptions of the study courses include the requirements for the commencement of the acquisition of the study course; the aims for the implementation of the study course and the planned learning outcomes; the content of the study; the study course calendar, mandatory and supplementary literature, other sources of information; the organisation and tasks for the independent work of students; the evaluation criteria of learning outcomes.

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

**Assessment of compliance:** Fully compliant

**Justification:** Compliance with the Profession Standard ORGANIZATIONAL MANAGER is evident from the Appendix 45.

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

**Assessment of compliance:** Fully compliant

**Justification:** Not applicable

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

**Assessment of compliance:** Fully compliant

**Justification:** Compliance with the State Academic Education Standard or the Professional Higher Education Standard is evident from the Appendix 44.

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

**Assessment of compliance:** Fully compliant

**Justification:** Not applicable

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

**Assessment of compliance:** Fully compliant

**Justification:** Academic publications of programme faculty is presented in the Appendix 14. The list of academic publications of 7 elected academic staff members teaching in the programme "Aviation management" in the time period 2013 - 2019 (as in the Appendix 14) range from 6 to 47 publications per faculty member. The topics of the publications are generally related to the courses delivered by the academic staff members.

15 P5 - Overall rating

**Assessment of compliance:** Fully compliant

**Justification:**

## Requirements (R6-R8)

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

**Assessment of compliance:** Fully compliant

**Justification:** The programme have good resource base, the students and the teaching staff have access to the necessary resources to ensure the quality of teaching and learning process.

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

**Assessment of compliance:** Fully compliant

**Justification:** The study programme is implemented by 7 TTI elected lecturers and 7 visiting lecturers - 14 in total; 9 of them, or 64% has PhD. This includes 4 professors and 1 associate professor. Some of the courses are delivered by invited lecturers - industry professionals. Moreover, 2 of the invited faculty members hold PhD.

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

**Assessment of compliance:** Fully compliant

**Justification:** Research seems to be an integral part of the study programmes which is linked to the study process

by lecturers' research activities, which leads to the improvement and updating of the study course content, design of practical tasks, and development the students' research skills.

## Conclusions by specifying the strengths and weaknesses

The professional master study programme 'Aviation management' name, the degree and the professional qualification to be acquired, the aims, objectives, and admission requirements are interrelated and can be regarded as programme strengths.

Programme design and content of the study courses correspond to the industry requirements.

Strong material and technical resource base which include simulators, laboratories and applied software systems; Modern library, especially the reading room, which is available for students' individual work.

Very enthusiastic Programme director and high qualification of the teaching staff, engaged in scientific research of the programme faculty;

Strengths:

- Unique programme in the Latvian market
- Programme is well positioned and has no direct competition
- Enthusiastic and motivated teaching staff and programme director

Weaknesses:

- No formal mechanism of collaboration between faculty members, although collaboration seems to take place.
- Programme learning outcomes lack some important aspects relevant to LQF and are too many. Especially lack of ERS related competences indicates weaknesses in the formulation of learning outcomes.
- Limited possibilities for student international mobility related to the programme specifics.

## Evaluation of the study programme "Aviation Management"

Evaluation of the study programme:

Good

## 6. Recommendations for the Study Programme "Aviation Management"

## Short-term recommendations

Formalisation of the collaboration processes between faculty members, corporate stakeholders and programme alumni should be developed (in a form of Programme Committee or other). ● Programme learning outcomes should be reconsidered – the amount of learning outcomes could be decreased and more tailored to LQF and EQF Level 7. Especially outcomes related to ERS (ethics responsibility sustainability) related competences should be included.

## Long-term recommendations

● Expand the Erasmus+ partnership agreements with schools having similar study programmes that could offer the students more opportunities for programme specific international exchange. ● To expand cooperation with internationally recognised aviation industry experts and academics and attract them as visiting lecturers and involve in research cooperation.

## II. ASSESSMENT OF THE STUDY PROGRAMME "Business and Management "

### II. ASSESSMENT OF THE STUDY PROGRAMME "Business and Management "

#### 1. Indicators Describing the Study Programme

##### Analysis

The academic master study programme "Business and Management" aim is to ensure the in-depth acquisition of knowledge, skills and competences in various domains of business management in a modern organization, to develop students' independent, creative and analytical thinking, which will allow to apply research methods for solving real life issues and the development of the long-term business strategy and to conduct consulting and research activities in the digital environment.

The TTI academic Master's study program Business and Management focuses on the elite manager, specifically, on training of a leader that will contribute to the organization's prosperity by striving to yield organizational operations productive and efficient.

The mission of the program is by using digital technologies to help students develop a rational analytical approach to solving the contemporary enterprise problems in order to affect the internal changes in business management within the enterprise and to become a leader who acts as a change agent in the organization.

The study program has seven objectives. Six of them are related to various aspects knowledge and skills, as well as students' personal development and international cooperation. The objective "To ensure the study process with the appropriate infrastructure and all the necessary resources for the adequate implementation of the study program" seems not related to the study programme, but more to the management of the institution, therefore its necessity as programme objective is questionable.

Learning outcomes of the study programme "Business and Management" are formulated as knowledge (6 results), skills (6 results) and competences (7 results). In total programme has 19 learning outcomes what is somewhat too many.

The general guidance in the literature is that there should be 5 -10 learning outcomes for a programme and that only the minimum number of outcomes considered to be essential be included. In the current version the learning outcomes are relevant to the programme and generally in line with Latvian and European qualification framework (LQF and EQF) Level 7, however, they look

sooner like the study course-specific learning outcomes.

The finalization of the academic master degree programme 'Business and Management' is awarded with the degree of 'Master of Social Sciences in Management'. It has two specializations (1) 'Business and Change Management; and (2) Business and Financial Management. The programme was updated just before the accreditation process. 'Change management' is a key selling point of this programme. During an onsite visit, experts' commission gathered documented evidence about made changes; however, still, there are no students who have been learning according to the renewed content.

This master programme is a logical continuation of the Bachelor's programme 'Business and Management'.

Programme's aims, objectives, learning outcomes, and admission requirements are interrelated. Programme's Intended learning outcomes are formulated as knowledge, skills and competences, which are in line with Latvian and European qualification framework (LQF and EQF) Level 7. Comparison with the Bachelor's programme 'Business and Management' descriptions of study courses demonstrates that bachelor and master degree programmes do not overlap; the master degree programme provides an upper level of the competences. However, learning outcomes of several courses (Strategic management, Corporate Governance and Social Responsibility, and Innovation management) should be reconsidered in the context of Latvian and European qualification framework, as their learning outcomes correspond more with the Latvian qualification framework Level 7.

The Master's study program Business and Management (the former title being Master of Social Sciences in Management) has been accredited and implemented on a full-time and part-time extramural basis in Latvian, Russian and English and as a part-time distance learning program administered in Russian since 2012 and in English since 2018.

The number of matriculated students in academic year 2019/2020 has decreased compared to the previous academic year 2018/2019 but is higher than the number of matriculated students in 2017/2018. Last academic year many undergraduate graduates still took the opportunity to enrol in the programs administered in the Russian language,

Programme delivering in Russian language was stopped according to the amendments to the Law on Higher Education Institutions of the Republic of Latvia, passed on June 21, 2018, which allowed the admission to programs in which the language of instruction is Russian only until 1 January 2019. Therefore, in academic year 2019/2020 students, wishing to pursue their education in the Russian language, were no longer admitted. That has led to a slight decrease of the number of matriculated students, however, the total number of students was not affected. Currently the largest proportion of students' study in English which is the language of instruction since 2015. Latvian language of delivery has started only in September 2019 with first 4 students enrolled.

### **Conclusions by specifying the strengths and weaknesses**

Programme's aims, objectives, learning outcomes and admission requirements are interrelated, but learning outcomes of several courses should be reconsidered in the context of Latvian and European qualification framework.

Strengths:

- Programme's aims, objectives, learning outcomes and admission requirements are interrelated

Weaknesses:

- Learning outcomes of Strategic management, Corporate Governance and Social Responsibility,

and Innovation management should be reconsidered in the context of Latvian and European qualification framework, as their learning outcomes correspond more with the Latvian qualification framework Level 6.

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

### **Analysis**

As it is mentioned in the previous section, course descriptions demonstrate compliance with study programme aims. However, there are several courses (Strategic management, Corporate Governance and Social Responsibility, and Innovation management) in which learning outcomes should be reviewed in the context of Latvian and European qualification framework. Strategic management course, and Corporate Governance and Social Responsibility aims to teach the fundamentals of strategic management, while LQF level 7 requires comprehensive skills and knowledge, while Innovation management course' learning outcomes are too general and can be applied to any other course.

It is noticeable that the case analysis method is widely spread among the courses. It is a good learning method; however, it can not prevail other methods such as simulation, role plays, self-reflection, etc.. During the onsite visit, students claimed that the case analysis method is overused in the class.

Although course descriptions demonstrate student-centered learning outcomes, however, students' evaluation methods are over dominated by the tests. Test can evaluate theoretical knowledge and student's abilities to learn. For the evaluation of student's understanding, critical thinking, responsible behaviour, teamwork, etc. can be evaluated with different methods, except test. It would be good to prepare methodological guidelines of learning outcomes evaluation, which explain the relationship between learning outcome, learning method, and evaluation. For example, for the development of leadership characteristics we can use Personality development methods (coaching) and it can be evaluated via self-reflection report and valuation of team members' behaviour.

University continuously reviews learning outcomes. Experts commission was introduced with the students, graduates, and employers survey results. Students confirmed the usage of such surveys; however, employers were surprised when hearing about such surveys. Still, employers survey is not the most effective way of getting relevant and up to date information for the update of study programmes; instead, in-depth interviews and/or roundtable discussions are more effective methods for such activity. It is recommended to organize roundtable discussions at least every second year for the monitoring of the study programme quality. At the same time, future industry needs can be identified via analysis of global trends and in-depth interviews. Also, the 'Aviation management' programme can be used as an example of how to keep programme relevant via close cooperation with industry representatives.

Students are well informed about mobility opportunities, and they expressed the need for the extension of the foreign partners' list for the mobility. Also, students ensured the commission that the learning outcomes achieved during such mobility are recognised.

### **Conclusions by specifying the strengths and weaknesses**

Master degree programme 'Business and Management' progresses with the implementation of the student-centred learning conception. It has aligned study programme aims and learning outcomes with the courses' learning outcomes.

Strengths:

- Innovative learning methods (e.g. case analysis) are introduced

Weaknesses:

- Further steps are required to strengthen learning outcomes evaluation methodologies.

- Study programme quality and relevance monitoring can be improved by an extended variety of monitoring methods (e.g. roundtable discussion, in-depth interviews, trend analysis).

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

#### **Analysis**

Study materials, costs of scientific infrastructure on 2019 is has reached 10% of budget of Faculty of Management and Economics. All involved groups - native and foreign students, academic staff marked only positive about the Moodle system, which is understandable, practical and useful for everyone. Moodle system use 100% of academic staff. TTI provides 12 audiences at all, included 3 modern-equipped audiences, 10 computer classes, 20 classrooms for practical and laboratory classes, a special room for video lectures and other materials for on-site, off-site and distance learning departments with recording option. All classrooms are equipped with a student registration system for classes that enable the automatic registration of students attending lectures and allows one to control attendance. It is especially necessary for foreign student control.

The most interesting and unique using methods which are positively assessed from students and staff is transport modelling, business game "Airport", which is a great simulation of real-life situations. It shows, how to cooperate successfully between departments in airport, thinking critically and make fast and right decisions. Although, this business game is directly applied to the students of "Aviation management" programme, however "Business and Management" programme use this game also during their studies.

The Applied Software System Laboratory provides TTI students, lecturers and researchers with the access to the software products, simulation tools (PTV VISSIM & VISUM, which is designed for transport flow modelling; AnyLogic, which is a universal modelling software; Aris, BPWin, Business Object, which is a business process modelling software; R, SPSS, STATISTICA, MatLab, Maths etc.).

The physical library in the Institute is very modest. According to students and staff, the e-resources available online are adequate. The students are guided by the academic staff to find material and sources for their assignments and thesis work. However, the modern reading room is available for students` work.

#### **Conclusions by specifying the strengths and weaknesses**

The programme had good resource base including the study provision, scientific support, informative provision (including libraries), material and technical provision, and financial provision that creates the prerequisites for the achievement of the learning outcomes and indicate the possibility to ensure a high-quality study process.

Strengths:

- Study resources and provision comply with the requirements for the implementation of the doctoral study programme, create the prerequisites for the achievement of learning and research outcomes, can ensure a high-quality study process.
- The staff members are supporting and giving guidance for the students to keep them up to date with the courses and studies in general.
- Opportunities for interdisciplinary learning at different laboratories can be distinguished as a strength of this programme.

Weaknesses:

- Not identified

### **4. Teaching Staff**

#### **Analysis**

Management of academic staff of master's degree programme 'Business and Management' went through remarkable changes since the accreditation in 2012. Since then, composition of academic staff changed a lot. Current programme is delivered by 13 lecturers, 10 of whom have doctoral degree in social sciences. In total, 92 % of the academic staff hold a scientific degree. The high maturity of academic staff was noticeable and during onsite visit. Permanent academic staff is strengthened with invited visiting lecturers with a high reputation in academia or industry. Qualification of academic staff is raised during different seminars and by involving them in international projects.

There are some examples of research results, which related to the education process, provided in the self-assessment report. Also, lecturers could be fostered to start working with teaching case preparation. Such teaching cases would be more relevant to the current business environment and also can be published as the research articles. However, academic staff, teaching at this programme, is highly involved in scientific research via participation in the research projects (e.g. Horizon 2020 'Enhancing excellence and innovation capacity in sustainable transport interchanges (ALLIANCE)', ERASMUS+ KA2 "SPREAD YOUR WINGS" 2017-1-PL01-KA203-038782; ERASMUS+ Learning with ICT use (LEARN IT); COST Action CA15137 European Network for Research Evaluation in the Social Sciences and the Humanities (ENRESSH), etc.) and publishing in journals which are listed in Scopus and Web of Science. Students also are invited to participate in the research projects.

### **Conclusions by specifying the strengths and weaknesses**

Composition of academic staff was dramatically changed with the aim to ensure teaching quality and compliances with the national regulations. Scientific activities of the academic staff contribute to the study process by involving students to the implementation of scientific projects.

Strengths:

- High qualification of the teaching staff, high percentage of PhD;
- High level of scientific research of the programme faculty;

Weaknesses:

- No formal mechanism of collaboration between faculty members, although collaboration seems to take place.
- Formalisation of collaboration processes could be recommended.

## **5. Assessment of the Compliance of the Study Programme "Business and Management "**

### **Requirements**

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

**Assessment of compliance:** Fully compliant

**Justification:** Diploma provided in the Appendix 42

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

**Assessment of compliance:** Fully compliant

**Justification:** Agreements about possibilities to continue the education is signed with: Baltic International Academy Professional Master's study programme Business Management and Administration, 47345;  
RISEBA  
Master's study programme Management Psychology and Supervision, 47345;  
Master's study programme Strategic Business Management, 45345  
Business School TURĪBA  
Professional Master's study programme, Business Administration, 47345

- 3 3. Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme.

**Assessment of compliance:** Fully compliant

**Justification:** Attestation provided in the Appendix 38

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

**Assessment of compliance:** Fully compliant

**Justification:** CV of the teaching staff indicate the proficiency of the official language.

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

**Assessment of compliance:** Fully compliant

**Justification:** Attestation provided in the Appendix 41 and evident from the discussions during the accreditation visit.

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

**Assessment of compliance:** Fully compliant

**Justification:** Not applicable

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

**Assessment of compliance:** Fully compliant

**Justification:** Proportion of TTI academic staff with doctoral degree is 70%.  
See section 4 in programmes` analysis.

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

**Assessment of compliance:** Fully compliant

**Justification:** Attestation provided in the Appendix 43

- 9 9. The descriptions of the study courses and the study materials have been prepared in all languages in which the study programme is implemented, and they comply with the requirements set forth in Section 56.1, Paragraph two and Section 56.2, Paragraph two of the Law on Institutions of Higher Education.

**Assessment of compliance:** Fully compliant

**Justification:** The descriptions of the study courses include the requirements for the commencement of the acquisition of the study course; the aims for the implementation of the study course and the planned learning outcomes; the content of the study; the study course calendar, mandatory and supplementary literature, other sources of information; the organisation and tasks for the independent work of students; the evaluation criteria of learning outcomes.

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

**Assessment of compliance:** Fully compliant

**Justification:** Not applicable

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

**Assessment of compliance:** Fully compliant

**Justification:** Decision provided in Appendix 39.

The implementation of the compulsory and compulsory elective part of the programme is provided by 4 professors and 4 associate professors.

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

**Assessment of compliance:** Fully compliant

**Justification:** Compliance with the State Academic Education Standard or the Professional Higher Education Standard is evident from the Appendix 34.

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

**Assessment of compliance:** Fully compliant

**Justification:** Not applicable

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

**Assessment of compliance:** Fully compliant

**Justification:** Academic publications of programme faculty is presented in the Appendix 14.

Each member of elected academic staff has publication within the last six years. The topics of the publications are generally related to the courses delivered by the academic staff members. Visiting lecturers have work experience which exceeds 5 years.

15 P5 - Overall rating

**Assessment of compliance:** Fully compliant

**Justification:**

## Requirements (R6-R8)

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

**Assessment of compliance:** Fully compliant

**Justification:** The programme have good resource base, the students and the teaching staff have access to the necessary resources to ensure the quality of teaching and learning process.

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

**Assessment of compliance:** Fully compliant

**Justification:** 70% of TTI academic staff has PhD, 10 of the visiting lecturers have a doctoral degree, the rest have a master's degree in the respective field.

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

**Assessment of compliance:** Fully compliant

**Justification:** Research seems to be an integral part of the study programmes which is linked to the study process

by lecturers' research activities, which leads to the improvement and updating of the study course content, design of practical tasks, and development the students' research skills.

### Conclusions by specifying the strengths and weaknesses

The programme was updated just before the accreditation process. 'Change management' is a key selling point of this programme. Management of academic staff went through remarkable changes since the accreditation in 2012. Current programme is delivered by 13 lecturers, of whom 92 % hold a scientific degree. This master programme is a logical continuation of the Bachelor's programme 'Business and Management'. Programme's aims, objectives, learning outcomes, and admission requirements are interrelated. It progresses with the implementation of the student-centered learning conception. It has aligned study programme aims and learning outcomes with the courses' learning outcomes. Opportunities for interdisciplinary learning at different laboratories can be distinguished as a strength of this programme.

Strengths:

- Study resources and provision comply with the requirements for the implementation of the study programme, create the prerequisites for the achievement of learning and research outcomes, can ensure a high-quality study process.
- Opportunities for interdisciplinary learning at different laboratories.
- High qualification of the teaching staff, high percentage of PhD;
- High level of scientific research of the programme faculty;

Weaknesses:

- No formal mechanism of collaboration between faculty members, although collaboration seems to take place.
- Learning outcomes of Strategic management, Corporate Governance and Social Responsibility, and Innovation management should be reconsidered in the context of Latvian and European qualification framework, as their learning outcomes correspond more with the Latvian qualification framework Level 6.
- Study programme quality and relevance monitoring can be improved by extended variety of monitoring methods (e.g. roundtable discussion, in-depth interviews, trend analysis).

### Evaluation of the study programme "Business and Management "

Evaluation of the study programme:

Good

## 6. Recommendations for the Study Programme "Business and Management "

### Short-term recommendations

Programme's aims, objectives, learning outcomes and admission requirements are interrelated, but learning outcomes of several courses (Strategic management, Corporate Governance and Social Responsibility, and Innovation management) should be reconsidered in the context of Latvian and European qualification framework, as their learning outcomes correspond more with the Latvian qualification framework Level 6. ● To improve study programme quality and relevance monitoring by extended variety of monitoring methods (e.g. roundtable discussion, in-depth interviews, trend analysis). ● Formalisation of the collaboration processes between faculty members, corporate stakeholders and programme alumni should be developed (in a form of Programme Committee or other).

### Long-term recommendations

- To prepare methodological guidelines for academic staff about learning outcomes evaluation, which explain the relationship between learning outcome, learning method, and evaluation form.
- To establish PhD programme in the area of Business Administration a logical continuation of Master degree programme
- To expand directions of Erasmus+ exchange

## II. ASSESSMENT OF THE STUDY PROGRAMME "Business and Management "

### II. ASSESSMENT OF THE STUDY PROGRAMME "Business and Management "

#### 1. Indicators Describing the Study Programme

##### Analysis

The Transport and Telecommunication Institute is traditionally a technical institute and study programmes in the study direction Management, Administration and Real Estate Management represent only 16 % of the total amount of students in the Institute. However, the business and management students represent 28 % of the graduate students in the Institute.

The name of the academic bachelor programme "Business and Management" has been renewed recently and it is quite a general name for a business programme. The programme now contains two specializations; Digital Business Management and Management Economics. According to the self-assessment report before renewing the programme and its specializations the Institute carried out some comparative studies in which it was concluded that similar specializations are not offered in any other programme in Latvia.

The bachelor study programme "Business and Management" envisages acquisition of bachelor's degree of Social Sciences in Management. The name of the programme and the degree are logically interrelated.

The aim and six objectives of the study programme are clearly specified and consistent and they are taken into account in the admission process.

Programme admission requirement is secondary education what correspond to bachelor programme in management field and are in line with Articles 46 and 47 of the Law on Higher Education

Institutions and Regulation of the Cabinet of Ministers No. 846 of October 10, 2006 on Requirements, Criteria and Procedures for Admission to Study Programs.

Programme Intended learning outcomes are formulated as knowledge, skills and competences which are in line with Latvian and European qualification framework (LQF and EQF) Level 6. However, the number of learning outcomes is somewhat too high - there are in total 21 learning outcomes (knowledge area - 5; skills - 10; competences - 6). The general guidance in the literature is that there should be 5 -10 learning outcomes for a programme and that only the minimum number of outcomes considered to be essential be included. In the current version learning outcomes look sooner like the study course-specific learning outcomes.

A major challenge for this programme is the closing of the Russian version of the programme. Over 60 % of the bachelor students have been studying in Russian. Programme delivering in Russian language was stopped according to the amendments to the Law on Higher Education Institutions of the Republic of Latvia, passed on June 21, 2018, which allowed the admission to programs in which the language of instruction is Russian only until 1 January 2019. Therefore, in academic year 2019/2020 students in the Russian language groups were no longer admitted. That has led to a slight decrease of the number of matriculated students, however, the total number of students was not affected. Currently the largest proportion of students' still study in Russian (second year and forth) Latvian language of delivery has started only in September 2019 with first 11 students enrolled.

The average drop-out rate is quite high; 20 - 25 % according to the self-assessment report, what can be regarded as quite high.

### **Conclusions by specifying the strengths and weaknesses**

The role of the faculty of Management and Economics could be reinforced. The importance of educating future leaders was articulated several times during the on-site visit. Other faculties could also benefit from the know-how and competences of the Faculty of Management and Economics.

The students mentioned the digitalization as a strength and competitive edge for the Institute. According to students this knowledge derives from the ICT Faculty of the Institute. The different faculties of the Institute offer possibilities to multidisciplinary actions and research

The goal and the tasks of the study programme as well as the results of the study programme divided into knowledge, skills and competences, are listed in detail. The amount of these specifications could be condensed and summarized.

The names of the bachelor and master study programmes are exactly the same. This might be sometimes confusing when dealing with these programmes, so it might be advisable to change one of the names at least a little just to distinguish one from the other.

Strengths:

- The study programme has been developed based on profound research work and the choices made are justified.

Weaknesses:

- The high drop-out rate should be addressed and the reasons for it analyzed and then find solutions to reduce it.

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

### **Analysis**

The descriptions of the courses in the curriculum are very detailed. The students reported that they have not had difficulties finding information about the learning outcomes and content of the courses.

According to the students, teaching and learning methods include lots of casework. When reading through the course descriptions it becomes evident that the principal elements that are evaluated are for full time and part-time students; active participation and/or attendance, assignments or case studies, presentations and tests and exams. In distance studies the evaluation is based on tests and exams. The courses include theoretical knowledge and applying it to solving practical assignments. The course materials are available in Moodle.

The course descriptions are updated every semester. The achievement of the learning outcomes is likely.

The students are asked regularly to give feedback and some of the students reported events where their feedback had an effect on how things are run for ex. the students suggested that they would like to have a recreational area for themselves to have a rest or coffee and such place was created for them. The interviewed distant learners were very satisfied with the support offered for them.

The results of the feedback from students is discussed on the faculty level and processed according to the guidelines presented in the self-assessment report.

The Faculty of Management and Economics cooperates with the employers and they have been involved in the renewal of the curriculum.

The student mobility is unfortunately very low, but the credits completed with the partners are accepted to the student's transcript of records.

### **Conclusions by specifying the strengths and weaknesses**

The fact that the course descriptions are updated every semester likely means that the academic staff members revise the content of the courses too and keep them current. The study programme meets the needs of business life.

There could be room for improvement in the diversity of the teaching and learning methods. Attendance, assignments, casework and tests and exams can be found in almost all course descriptions. Peer-evaluation, problem-based learning and applied assignments replacing tests might be worth exploring in some of the courses.

The conferences the Institute organizes annually for young researchers and students are highly valued by the students as stated in the interviews.

#### **Strengths**

- According to the feedback from the students, they are satisfied with their studies in the Institute.

#### **Weaknesses**

- Student mobility requires more attention and measures. Some students indicated hope for more international lecturers. Also, the part-time and distant education students would benefit from short-term exchanges like a special project week with an international partner.
- Research methods could be strengthened in the curriculum of the Bachelor Programme. Now research methods are part of Introduction to Studies in Economics and Business Science 3 ECTS course.

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

#### **Analysis**

All involved groups - native and foreign students, distance students, graduates, academic staff - were very positive about Moodle as a learning platform, which is understandable, it is practical and useful for everyone. Moodle system used by 100% of academic staff. TTI provides 12 auditoriums at total, this includes three modern-equipped auditoriums, 10 computer classes, 20 classrooms for practical and laboratory classes, special room for video lectures and other materials for on-site, off-site and distance learning departments with recording option. All classrooms are equipped with a student registration system for classes that enable the automatic registration of students attending

lectures and allows one to control attendance. It is especially necessary for foreign student control. The students reported no lack of physical or technical facilities which would affect their study process negatively.

TTI distance learning process is well-equipped with resources (for example, special room for video lectures and working with distance students; electronic databases and e-books) as well as administrative team, who is always ready to answer questions and support distance learning students.

The physical library in the Institute is very modest. According to students and staff, the e-resources available online are adequate. The students are guided by the academic staff to find material and sources for their assignments and thesis work.

Budgeting principles or internal allocation of financial resources are rather unclear. The Head of the faculty or the Heads of the study programmes are not involved in the budgeting process.

Achievement of the learning outcomes seems probable.

The academic staff is committed in their research work and teaching ensuring learning outcomes.

Again, the students expressed high satisfaction in their studies.

### **Conclusions by specifying the strengths and weaknesses**

The staff members are supporting and giving guidance for the students to keep them up to date with the courses and studies in general.

Even though the physical library appeared to be quite moderate the academic staff and students did not report any major shortcomings in the resources for research and teaching during the on-site visit.

The personnel in the library were eager to help the students and staff in finding materials for their needs in research and courses. To be more cost-effective, there is more emphasis on digital materials in the future.

Strengths

- Moodle as a learning environment is highly appreciated.
- The students reported no shortcomings in the resources.

Weaknesses

- Financial accountability in the organisation is somewhat vague.

## **4. Teaching Staff**

### **Analysis**

The staff is motivated and committed to delivering high-quality learning outcomes and educating future leaders. The number of PhDs among the academic staff is impressive, 83 % as reported in the self-assessment report. All staff members are involved in research and they also engage students in it. Annually each staff member reports about his or her scientific and methodological activities. The qualifications of the teaching staff members fulfil the requirements of the study programme and the requirements in the regulatory enactments.

The Institution has taken measures like release of internal guidelines to avoid unintended effects on the quality of the study programme and the compliance of the study programme with the requirements in the regulatory enactments, as a result of the changes in the composition of the teaching staff.

There is some collaboration among the staff members. Some interdisciplinary or integrated courses are delivered in several study programmes by the same teachers and this allows the best competencies to be used more extensively in the Institute. Some of these courses are delivered by more than one teacher as joint endeavour.

The staff members take part in many national and international projects for ex. Erasmus+ and

HORIZON 2020 programme projects and the knowledge gained is used for the benefit of the students.

### **Conclusions by specifying the strengths and weaknesses**

The qualifications of the academic staff are on a high level. Further education endeavours could be taken in the field of pedagogical skills in order to diversify the teaching and learning methods. Changes in the teaching staff have not been substantial and they have not affected the quality of the study programme.

More active collaboration and exchange of knowledge could be beneficial in ensuring the achievement of learning outcomes.

International activities should be enhanced in order to provide more international impact and elements to the staff and the students.

Strengths

- Motivated, highly qualified academic staff.

Weaknesses/suggestions:

- More international activities.

## **5. Assessment of the Compliance of the Study Programme "Business and Management "**

### **Requirements**

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

**Assessment of compliance:** Fully compliant

**Justification:** Diploma provided in the Appendix 32

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

**Assessment of compliance:** Fully compliant

**Justification:** Agreements about possibilities to continue the education is signed with: Baltic International Academy Professional Bachelor's programme Management, 42345; RISEBA

Bachelor's programme Business Psychology, 43345;

Business School TURĪBA

Professional Bachelor's study programme

Business Administration, 42345

3. Document confirming that the higher education institution/ college guarantees to the students a compensation for losses if the study programme is not accredited or the licence of the study programme is revoked due to the actions of the higher education institution/ college (actions or failure to act) and the student does not wish to continue the studies in another study programme.

**Assessment of compliance:** Fully compliant

**Justification:** Attestation provided in the Appendix 28

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

**Assessment of compliance:** Fully compliant

**Justification:** CV of the teaching staff indicate the proficiency of the official language.

- 5 5. The teaching staff members to be involved in the implementation of the study programme have at least B2-level knowledge of a related foreign language, if the study programme or any part thereof is to be implemented in a foreign language.  
**Assessment of compliance:** Fully compliant  
**Justification:** Attestation provided in the Appendix 31 and evident from the discussions during the accreditation visit.
- 6 6. At least five teaching staff members with a doctoral degree are among the academic staff of an academic doctoral study programme, at least three of which are experts approved by the Latvian Science Council in the respective field of science. At least five teaching staff members with a doctoral degree are among the academic staff of a professional doctoral study programme in arts.  
**Assessment of compliance:** Fully compliant  
**Justification:** Not applicable
- 7 7. The academic staff of the academic study programme complies with the requirements set forth in Section 55, Paragraph one, Clause 3 of the Law on Institutions of Higher Education.  
**Assessment of compliance:** Fully compliant  
**Justification:** Proportion of TTI academic staff with doctoral degree is 70%.  
 See section 4 in programmes` analysis.
- 8 8. The sample of the study agreement complies with the mandatory provisions to be included in the study agreement.  
**Assessment of compliance:** Fully compliant  
**Justification:** Attestation provided in the Appendix 33
- 9 9. The descriptions of the study courses and the study materials have been prepared in all languages in which the study programme is implemented, and they comply with the requirements set forth in Section 56.1, Paragraph two and Section 56.2, Paragraph two of the Law on Institutions of Higher Education.  
**Assessment of compliance:** Fully compliant  
**Justification:** The descriptions of the study courses include the requirements for the commencement of the acquisition of the study course; the aims for the implementation of the study course and the planned learning outcomes; the content of the study; the study course calendar, mandatory and supplementary literature, other sources of information; the organisation and tasks for the independent work of students; the evaluation criteria of learning outcomes.
- 10 10. The study programme complies with the valid professional standard or the requirements for the professional qualification (if there is no professional standard required for the relevant occupation) provided that the completion of the study programme leads to a professional qualification.  
**Assessment of compliance:** Fully compliant  
**Justification:** Not applicable
- 11 11. Academic study programmes provided for less than 250 full-time students may be implemented and less than five professors and associated professors of the higher education institution may be involved in the implementation of the mandatory and limited elective part of these study programmes provided that the relevant opinion of the Council for Higher Education has been received in accordance with Section 55, Paragraph two of the Law on Institutions of Higher Education.  
**Assessment of compliance:** Fully compliant  
**Justification:** Decision provided in Appendix 29.

The implementation of the compulsory and compulsory elective part of the programme is provided by 2 professors and 4 associate professors (Appendix 30).

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

**Assessment of compliance:** Fully compliant

**Justification:** Compliance with the State Academic Education Standard or the Professional Higher Education Standard is evident from the Appendix 24.

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

**Assessment of compliance:** Fully compliant

**Justification:** Not applicable

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

**Assessment of compliance:** Fully compliant

**Justification:** Academic publications of programme faculty is presented in the Appendix 14. Each member of elected academic staff has publication within the last six years. The topics of the publications are generally related to the courses delivered by the academic staff members. Visiting lecturers have work experience which exceeds 5 years.

15 P5 - Overall rating

**Assessment of compliance:** Fully compliant

**Justification:**

## Requirements (R6-R8)

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

**Assessment of compliance:** Fully compliant

**Justification:** The programme has good resource base, the students and the teaching staff have access to the necessary resources to ensure the quality of teaching and learning process.

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

**Assessment of compliance:** Fully compliant

**Justification:** 70% of TTI academic staff has PhD, 10 of the visiting lecturers have a doctoral degree, the rest have a master's degree in the respective field.

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

**Assessment of compliance:** Fully compliant

**Justification:** Research seems to be an integral part of the study programmes which is linked to the study process by lecturers' research activities, which leads to the improvement and updating of the study course content, design of practical tasks, and development the students' research skills.

## Conclusions by specifying the strengths and weaknesses

The goal and the tasks of the study programme as well as the results of the study programme

divided into knowledge, skills, and competences, are listed in detail. The amount of these specifications could be condensed and summarized.

The strong technical character of the Institute can be a competitive edge for the business programmes but also their own profile should be nurtured.

The names of the bachelor and master study programmes are exactly the same. This might be sometimes confusing when dealing with these programmes, so it might be advisable to change one of the names at least a little just to distinguish one from the other.

Content of the study programme is kept up-to-date.

There could be some room for improvement in the diversity of the teaching and learning methods.

The premises for the library appeared to be quite moderate but the academic staff and students did not report any major shortcomings in the resources for research and teaching during the on-site visit.

Strengths:

- The study programme has been developed based on research and the choices made are justified.
- The conferences the Institute organizes annually for young researchers and students are highly valued by the students as stated in the interviews.
- The satisfaction of the students is high.
- Staff is very qualified, committed and engaged.
- Moodle as a learning environment is highly appreciated.

Weaknesses:

- Role of research methods should be emphasized in the bachelor programme.
- Drop-out rate is quite high; 20-25 % according to the self-assessment report. The high drop-out rate should be addressed and the reasons for it analysed and then find solutions to reduce it.
- International cooperation and mobility is low.
- Research methods could be strengthened in the curriculum of the Bachelor Programme. Now research methods are part of Introduction to Studies in Economics and Business Science 3 ECTS course.

## **Evaluation of the study programme "Business and Management "**

Evaluation of the study programme:

Good

## **6. Recommendations for the Study Programme "Business and Management "**

### **Short-term recommendations**

- Stronger emphasis on research methods in the bachelor programme.
- Drop-out rate should be addressed.

### **Long-term recommendations**

- Explore the possibilities of international cooperation that would offer the students more opportunities for international elements.

## **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
Pursuant to Section 5, Paragraph 21 of the Law on Institutions of Higher Education, the higher education institution/ college shall ensure continuous improvement, development, and efficient performance of the study direction whilst implementing their internal quality assurance systems:	Fully compliant		The culture of continuous improvement was evident in TTI during the visit.
R2 - The cooperation with different organisations from Latvia and abroad implemented within the study direction ensures the achievement of the aims of the study direction.	Fully compliant		39 Erasmus+ agreements with foreign HEI and 34 Cooperation agreements with private enterprises, government organizations, NGOs, HEIs, and scientific institutions serve as evidence of cooperation.
R3 - Compliance of scientific research and artistic creation with the development level thereof (if applicable).	Fully compliant		Evidence of 22 scientific research projects; 11 contract research activities and 387 scientific publications has been presented as evidence of scientific research activity of the academic staff.
R4 - Elimination of the shortcomings and deficiencies identified during the previous assessment of the study direction, if it has been conducted, or the implementation of the provided recommendations.	Fully compliant		Recommendations of both expert commissions were implemented according to the plans which were prepared after the accreditation process.

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

<b>No.</b>	<b>Study programme</b>	<b>R5</b>	<b>R6</b>	<b>R7</b>	<b>R8</b>	<b>Evaluation of the study programme (excellent, good, average, poor)</b>
1	Aviation Management	Fully compliant	Fully compliant	Fully compliant	Fully compliant	Good
2	Business and Management	Fully compliant	Fully compliant	Fully compliant	Fully compliant	Good
3	Business and Management	Fully compliant	Fully compliant	Fully compliant	Fully compliant	Good

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

The experts team closely cooperate during the accreditation process and preparation of the assessment report which gave them a clear impression and common opinion.