



**RTU**  
**OLAINES TEHNOLOĢIJU**  
**KOLEDŽA**  
**RTU**

# **OLAINE TECHNOLOGY COLLEGE**



## **DEVELOPMENT AND INVESTMENT STRATEGY**

**2021 - 2027**

**Olaine**  
**2021**

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# 1. OTC overarching goals, development vision and strategic direction

## 1.1. Summary about vocational education institution

### **Title:**

Riga Technical University agency “Riga Technical University Olaine Technology College” (further in the text – OTC)

**Address:** Zeiferta Street 2, Olaine, Olaine County, LV-2114

**Level:** Professional higher education institution with a unit of vocational secondary school

### **Offered educational programs:**

#### 1st level professional higher education study programs:

- Biotechnology;
- Environmental protection technology;
- Food quality control.

#### Vocational secondary school education programs:

- Analytical chemistry technician;
- Biotechnological processes technician;
- Chemical and biotechnological equipment technician;
- Perfumery and cosmetics processes technician;
- Food quality controller.

**Number of lecturers and teachers:** 25 (variable, affected by the number of groups and semesters)

**Number of learners:** on 05.01.2021. number of students 27; number of secondary school students 107

## 1.2. OTC mission, vision, values, SWOT analysis and uniqueness

### **Mission:**

To prepare professional, high level specialists of chemistry, pharmacy, biotechnology, environment, food and their related industries in sustainable and qualitative educational process in modern technology environment education programs with high added value.

### **Vision:**

Excellence of the educational institution by targeted institutional development until reached a level appropriate to the center of excellence, implementing a sustainable supply of educational services.

### **Values:**

- excellent quality
- targeted growth
- professional responsibility
- common trust
- pleasant working environment

## SWOT analysis

STRENGTHS	WEAKNESSES
<ol style="list-style-type: none"> <li>1. OTC successfully implements both 1st level professional higher education (college) study programs and professional secondary education programs;</li> <li>2. Close acquisition of knowledge, skills and practical competencies is ensured in the study / study process of OTC;</li> <li>3. In cooperation with industry partners, OTC students are provided with appropriate internships;</li> <li>4. Geographical location of OTC - easily accessible by public transport, close to the location of leading companies;</li> <li>5. OTC is a resource-efficient and modern educational institution;</li> <li>6. Modern training laboratories meeting the highest requirements have been established and the total level of infrastructure of OTC has been purposefully developed in the direction of the most modern technological achievements;</li> <li>7. OTC ancient traditions - OTC has been operating as a vocational education institution in the territory of Olaine since 1964. OTC, as a vocational education institution in Latvia, has accumulated extensive and versatile experience in teaching natural sciences and engineering subjects;</li> <li>8. The close connection with the industry, which is ensured in the implementation of OTC training and valorisation processes, contributes to the development of the national economy;</li> <li>9. The educational process is concentrated in a unified, professionally developed environment in the OTC infrastructure in Olaine.</li> </ol>	<ol style="list-style-type: none"> <li>1. The number of graduates of educational programs implemented by OTC does not sufficiently meet the needs of economic development and the demand of the labor market;</li> <li>2. Meaningful and interdisciplinary application of new, modern infrastructure and technologies;</li> <li>3. Insufficient contribution of OTC to scientific research and practical work, creation of applied and innovative developments;</li> <li>4. The infrastructure of the service hotel and gym has been maintained but is technically and morally outdated;</li> <li>5. Cooperation with vocational education institutions and companies abroad has decreased, especially as a result of the influence of external factors;</li> <li>6. Insufficient international cooperation of academic staff and little use of mobility opportunities;</li> <li>7. Insufficient and incomplete project management skills for the staff of the educational institution.</li> </ol>
OPPORTUNITIES	THREATS
<ol style="list-style-type: none"> <li>1. Develops and implements study/training programs for the current needs of the national economy, creates demand in the labor market;</li> <li>2. Establishment of a center of excellence within the educational service implemented by OTC;</li> <li>3. The importance of lifelong learning is growing throughout a person's life, based on the need to acquire new knowledge, skills, experience in order to improve or change their qualifications in accordance with the requirements of the labor market.</li> <li>4. Mutually interested cooperation with OTC social partners (other educational institutions, sectors and their companies, regions) significantly increases the quality of the study/learning process;</li> <li>5. To improve the image of OTC as publicly recognizable in vocational education, chemistry and its related branches;</li> <li>6. To deepen and expand cooperation with related</li> </ol>	<ol style="list-style-type: none"> <li>1. The demographic situation, as well as the migration process, may significantly reduce the number of people potentially involved in vocational training and further training;</li> <li>2. The economic development of a country may stagnate or even regress due to global crises or internal factors;</li> <li>3. Due to global competition or economic development of the country, unforeseen changes in the structure of economic sectors and the corresponding demand for qualified specialists in the labor market may occur;</li> <li>4. OTC may not receive the state budget financing necessary for the provision and development of the study/learning process, co-financing for EU projects, as well as may not attract financial resources from other sources;</li> <li>5. Due to insufficient remuneration, qualified teaching staff may transfer to another sector or</li> </ol>

<p>foreign vocational education institutions and industry companies, organizations;</p> <ol style="list-style-type: none"> <li>7. Purposefully develop educational programs, taking over the most successful experience in the development and implementation of programs in initial vocational education, first-level professional higher education, further education, lifelong learning, retraining;</li> <li>8. Increase in demand for interdisciplinary educational programs, where OTC has been able to show good results;</li> <li>9. Medium and long-term labor market forecasts show that the demand for specialists in chemistry and other technological sciences will increase.</li> </ol>	<p>profession, incl. go to work abroad;</p> <ol style="list-style-type: none"> <li>6. Compared to other European Union countries, low income level, low gross domestic product per capita;</li> <li>7. Unstable policy of the state and the Ministry of Education and Science in the field of college education, lack of succession;</li> <li>8. Low popularity of chemistry and its related industries in society and insufficient understanding of their importance and necessity for ensuring public benefit;</li> <li>9. Decrease in the level of knowledge of natural sciences and mathematics for primary and secondary school graduates;</li> <li>10. Increasing competitiveness of colleges and other educational institutions in the field of chemistry and related fields in the neighboring countries and the Member States of the European Union.</li> </ol>
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### **Uniqueness:**

1. The supply of educational programs demanded by the industry and rare in Latvia.
2. OTC implement short-cycle educational programs which ensure rapid entry of specialists into a labour market, state budget funds are used effectively.
3. In autumn 2020 were opened 11 new, modern laboratories with equipment appropriate for the implementation of educational programs.
4. OTC teachers are the patriots of their workplaces and industry enthusiasts with high readiness professionally to improve and retrain, expanding its scope.
5. In cooperation with industry is being developed and built study material base for the corresponding qualification.

### **1.3. Strategical priorities for 2021 - 2027**

OTC raised priorities:

1. Development of a new offer of educational programs
2. Provision of human resources
3. Provision of practice places
4. Increase in the number of learners
5. Application of infrastructure and Technologies
6. High efficiency of economic activity

### **1.4. Strategical goals for 2021 - 2027**

OTC strategical goals and tasks are a basis for further development and preparation of investment projects, attracting state of Latvia, European Union structural funds or other financial instruments.

1st priority:

#### **Development of a new offer of educational programs.**

Goals:

1. Update and modernize existing educational programs promoting closer

- involvement of companies in the sector;
- 2. Develop new, modular educational programs that meet the requirements of the labor market;
- 3. Motivate self-education for life.

2nd priority:

#### **Provision of human resources.**

Goals:

1. Attract highly qualified human resources;
2. Implement a common personnel policy;
3. Motivate and ensure staff growth opportunities;
4. Targetfully assess qualification and competences of employees by planning of their professional growth.

3rd priority:

#### **Provision of practice places.**

Goals:

1. Cooperate with representatives of employers by coordinating traineeships;
2. In cooperation with food, chemistry and their related industries, metalworking, machine building and mechanical engineering industry and leading companies to provide internships for learners and high quality of practical training;
3. Encourage international exchange of experience within projects (Erasmus+, PoVE-Water etc.).

4th priority:

#### **Increase in the number of learners.**

Goals:

1. Create a positive image of institution, field of natural sciences and industry;
2. Improve the implemented OTC educational offer in modern infrastructure;
3. Popularize graduate success stories by giving an idea of future opportunities in the industry;
4. Individual approach to each learner for minimization of early school and studies leaving of learners;
5. Encourage parental responsibility in the process of obtaining education in a vocational secondary school.

5th priority:

#### **Application of infrastructure and technologies.**

Goals:

1. Make meaningful use of new, modern infrastructure and technologies and develop their interdisciplinary application;
2. Promote the improvement of practical scientific activity;
3. Identify potential growth opportunities and future perspectives by taking into account basic principles of “green course”;
4. Improve IT applications and work on digitalization.

6th priority:

#### **High efficiency of economic activity.**

Goals:

1. Resource effectively and sustainable optimize economic functions performed by the institution;

2. Improve the management of financial and administrative activities;
3. In cooperation with founder organize procurement of services necessary for ensuring operation of institution.

Table Nr. 2

Area of strategic development of the organization	Common quality parameters of the education system				Development indicators and results
	Quality: evaluation of the study process and result (labor market data, measurement of PII reputation, evaluation of graduates)	Digitalizācija un inovācijas: tehnoloģiju, inovāciju un kompetenču attīstība mācīšanās procesā un mācīšanās pieredze	Inclusion: the availability of schools and different learning needs	“Green course”: sustainability, efficiency, accountability of resources, infrastructure and processes	
Development of a new offer of educational programs	We update and modernize the existing educational programs,	When developing a new IP offering, make the most of your IT capabilities.	We offer new competitive educational programs for all age groups.	We are developing new modular, labor market-friendly educational programs that are sustainable and	6 (prof. sch. - 4, 1st level - 2) educational programs have been developed.



	<p>promoting closer involveme nt of companies in the sector;  We develop new, modular educationa l programs that meet the requiremen ts of the labor market.</p>			<p>environmentally friendly.</p>	
<p><b>Provisio n of human resources</b></p>	<p>We attract highly qualified human resources, motivating and</p>	<p>We perform personnel policy and evaluation in the e- environment.</p>	<p>A flexible approach to the employment of human resources, adapting to</p>	<p>We encourage employees to respect and be co- responsible in implementing environmentally friendly solutions.</p>	<p>A common personnel policy has been implemented;  The qualification and competencies of employees are purposefully</p>

	providing staff growth opportunities.		the needs and desires of the job.		assessed when planning their professional development.
<b>Provision of practice places</b>	In cooperation with the food, chemical and allied industries, metal processing, mechanical engineering and mechanical engineering industry and leading companies, we provide students with high	We introduce digital practice diaries, trainee profile, practice portfolio.	We encourage students to participate in evaluating the availability of internships and providing the necessary support measures.	We promote international exchange of experience in the framework of environmentally friendly projects (Erasmus +, PoVE-Water, etc.).	Coordinated internship programs (with employers and industry); The project's recommendations have been analyzed and suggestions have been taken into account.

	quality internships and practical training.				
<b>Increase in the number of learners</b>	We create a positive image of the institution, the field of science and the industry.	We popularize graduates' success stories in the e-environment, creating an idea of future opportunities in the industry using active marketing methods.	We reduce the risks of students' studies and early termination of studies by approaching each student individually; We encourage parental co-responsibility in the process of obtaining education in a vocational	Develop an understanding of the nature of the natural sciences in everyday life (eg environment, composition, processes, sustainability); We are improving the educational offer implemented by OTC in a modern infrastructure, within the framework of the "Green Course".	The number of students has been increased by 50%.

			secondary school.		
<b>Application of infrastructure and technologies</b>	We make meaningful use of new, modern infrastructure and technologies and develop their interdisciplinary primary application; We promote the improvement of practical scientific activity.	We improve IT applications and work on digitization; Use of digital teaching aids in the educational process.	We ensure the availability of the environment and the use of technology according to the needs of the learner.	We identify potential growth opportunities and future prospects following the basic principles of the "green course".	Scientific and practical conferences (1 time in 2 years); Up to 100% meaningful use of infrastructure.

<b>High efficiency of economic activity</b>	We ensure	In cooperation	Observance	We optimize the	Improved financial
	high	with the	of the	economic functions	and administrative
	efficiency	founder, we	principles of	implemented by the	management.
	of	organize the	equality in	institution in a	
	economic	procurement	an inclusive	resource-efficient	
	activity.	of services	work	and sustainable	
	necessary to	environment	manner, using		
	ensure the	.	renewable resources.		
	operation.				

## 2. Description of the current situation

### 2.1. Description of OTC vocational education programs

#### 2.1.1. 1st level professional higher (college) education programs

In OTC after obtaining of general secondary and secondary vocational education is possible to obtain 1st level professional higher education (4th professional qualification level or 5th LQF) in 3 study programs:

*Table Nr. 3*

#### 1st level professional higher education programs

Study program	Obtainable qualification	Implementation duration in years
Biotechnology	Biotechnologist	2,5
Environmental protection technology	Environmental technologist	2,5
Food quality control	Food quality specialist	2

Study directions “Environmental protection” and “Biotechnology” are accredited till the 31st of December 2023 and study direction “Production and processing” is accredited till 30th of June 2022.

All offered 1st level professional higher education programs are with high competitiveness because they are unique in Latvian scale. No other Latvian higher education institution implements such kind of accredited 1st level professional higher education programs.

Work is currently underway on development of the following new study programs in OTC:

- chemical process specialist;
- chemistry specialist;
- pharmaceutical process specialist.

Will be updated and improved existing study programs:

- Biotechnology will be updated according to the biotechnological process specialist standart developed in 2021;
- Environmental protection technology will be updated according to the environmental specialist standart developed in 2021.

### 2.1.2. Secondary vocational education programs

OTC implements 3 secondary vocational education programs with 5 qualifications (3rd professional qualification level), in which learners are admitted after completing basic education.

Table Nr. 4

#### Secondary vocational education programs

Secondary vocational education programs	Obtainable qualification	Implementation duration in years
Chemical technologies	Biotechnological process technician Analytical chemistry technician Perfumery and cosmetics process technician	4
Engineering mechanics	Chemical and biotechnological equipment mechanic	4
Food quality control	Food quality controller	4

All secondary vocational education programs are licensed and accredited till 22nd December 2026. Since September 2016 in OTC modular education programs are being implemented and work has begun on development of all education programs transition to modular training.

The work has begun on development and licensing of new four-year vocational secondary education programs and 1,5 year education programs.

Table Nr. 5

#### Planned secondary vocational education programs

Profession name	Qualification level	Profession specializations	Related professions, level
Biotechnological process technician	4th LQF	-	Biotechnological process operator, 3rd LQF
Chemical process technician	4th LQF	Pharmaceutical process technician Perfumery and cosmetics process technician	Chemical production operator, 3rd LQF
Chemical technician	4th LQF	Analytical chemistry technician	Chemistry laboratory assistant, 3rd LQF

Chemical production operator	3rd LQF	Fiberglass production operator	Chemical process technician, 4th LQF
Industrial equipment mechanic	4th LQF	Chemical and biotechnological equipment mechanic	Locksmith, 3rd LQF
Environmental technician	4th LQF		

All secondary vocational education programs are being implemented in Olaine.

OTC offers continuing professional education programs for young people and adults. It is planned to update the existing professional continuing education programs Biotechnological Process Technician (number of hours - 960, previous education - secondary education), Analytical Chemistry Technician (number of hours - 960, previous education - secondary education).

It is planned to develop new continuing education programs (number of hours - 960, previous education - secondary education): Chemical Technician (with one of the specializations), Environmental Technician, Industrial Equipment Mechanic, Cook and Confectioner. Continuing education programs Cook and Confectioner are planned to be implemented in the form of WEB (work environment based) training.

OTC offers non-formal education programs, i. e. a module or several modules of a modular vocational education program of an accredited program, which are recognizable in the labor market and identifiable as a set of assessable knowledge, skills and competences, but do not certify the acquisition of a professional qualification, OTC shall issue a certificate on the acquisition of the relevant module or modules.

Outside formal education, OTC provides professional qualifications for individuals who have acquired their knowledge, skills and abilities outside the formal education system, i. e. professional competencies acquired through work or personal experience. A person's professional competence is assessed in a professional qualification exam, which can be taken individually or by joining a group.

## **2.2. Availability, characterization and development of human resources**

### **2.2.1. Characterization of human resources**

In 2020/2021 OTC operation was ensured by 63 employees, from which 28 pedagogical staff, including administration and academical staff.

In attracting human resources OTC successfully cooperate with RTU, LU and LLU, to provide highly qualified academic staff.

The position of laboratory manager has been introduced, in order to organize efficient operation of laboratories. To ensure the development of teachers` IT user skills, it is planned to introduce a post – information technology operations and user support specialist.

Attraction and provision of human resources in OTC is a variable factor, affected by a number of learners and/or groups and the technical staff required to ensure the operation.

In cooperation with a founder work has begun on development and implementation of OTC collective agreement.

### **2.2.2. Human resources capacity building measures**

Compiling a summary of teachers` self-assessments, in order to enhance the quality of their work and operation of OTC, is necessary:

1. To improve foreign language skills;
2. To foster creativity, business communication and etiquette;
3. To develop intercultural communication;
4. To foster cooperation and teamwork skills, to improve presentation skills;
5. To improve IT user skills;
6. To actualize “green” thinking;
7. To improve physical and mental health.

Wishes and needs of OTC employees are heard and implemented as far as possible, in order to make every employee feel good and be motivated for a high performance.

#### **Institutional excellence – Human resources development**

Attracting highly qualified staff. Creation of a career path map for academic staff. Promoting employee growth and motivation. Introduction of modern and efficient personnel management solutions. Improvement of the payroll system, reducing the fragmentation of posts and contracts, perfecting motivation system, as well as promoting employees` understanding of the principles of remuneration determination.

#### **Tasks for the implementation of the strategy:**

1. To attract highly qualified human resources and to improve image of the employer. To improve the selection process, by making it more transparent and offering potential employees clearer career and pay development conditions. To supplement the career path map of the academic staff. To promote the growth and development of employees.
2. To attract OTK graduates or anyone interested as a young specialist to the pedagogical work, inviting and offering an individual approach, combining work with studies, scientific activities, involvement in projects. To motivate new specialists to gain international experience within the framework of mobilities implemented by OTK. Provide mentoring.
3. To promote the development of leadership and resource management skills in the OTC administration. To develop and implement a management evaluation system, according to the level of managerial position (the specifics of the work of senior, middle and academic/administrative structural units managers). To motivate managers actively promote professional development and career growth of their employees.



4. To improve the remuneration system, making it transparent, understandable, internally fair and predictable. To develop unified remuneration calculation methodology for all academic and teaching staff, in order to facilitate staff retention, motivation and sense of stability. To develop and introduce collective agreement, the basket of benefits it contains, offering it the most appropriate for the motivation needs of employees.
5. To improve and introduce modern digital personnel management solutions, which relieves academic staff from administrative activities and enables management to make data-based decisions.

### **3. OTC action plan**

#### **3.1. Development of education programs**

##### **Expanding the range of educational programs**

Referring to the LAKIFA strategy, the lack of human resources is the most serious obstacle for chemical industry development in all its segments. Chemical industry needs qualified specialists already now, as well as in the medium term. This is indicated by both Ministry of Economics report on labor market trends and industry assessment itself. Without action on the long-term availability of skilled labor, the situation in the sector can only worsen. The availability of high-quality labor is a precondition for the development of both the chemical industry and other high-tech industries in Latvia.

OTC study program development plan has been prepared in accordance with LAKIFA recommendations and, besides the existing study programs, intends to specialize in pharmacy, biotechnologies and cosmetic technologies.

In cooperation with LAKIFA and industry merchants OTC is defined following main tasks:

- to create such a model of vocational education, which ensure in the future sustainable and attractive vocational education in chemical, pharmacy and biotechnology, environmental protection sectors;
- to develop professional standards and education programs for basic professions of the sector with full methodological support;
- to ensure the quality of teaching practice according to the requirements of modern companies (for 100 % OTC learners);
- to improve the qualification of teachers (performance in accordance with external regulatory enactments (100%) and supporting the offer of other services, in accordance with the qualification of the teaching staff and the field of activity (up to 80%));
- to organize industry-specific training and distance learning courses (according to the demand of employers and the offer of OTC – 6 programs);
- organization of training seminars, practice exchange trips to the related companies and/or training institutions in the industry in other countries (12 activities);
- to cooperate with the similar training centers in EU countries (4 centers (institutions, organizations));
- implementation of e-resources and e-learning environment system both in learning and examination process (up to 5 tools).

For the implementation of these tasks, the material, technical and human resources are at the basic level, additional capacity will be required for capacity building in each of the tasks.

In addition, provision is provided for laboratory work (reagents, materials, equipment maintenance, etc. maintenance costs), attraction of teaching staff and administrative staff (public relations, project coordination, marketing), training of teaching staff, exchange of experience, implementation and maintenance of OTC e-environment.

### 3.2. Methodological work and its development

OTC the 1st level professional higher education methodological work is done by program directors and in vocational secondary school three methodological commissions are working: methodological commission of general education subjects, methodological commission of professional subjects and methodological commission of upbringing work.

#### Work goals of methodological commissions are:

1. To rise the quality and effectiveness of learning process;
2. To provide the necessary support to teaching staff for education process implementation;
3. To promote comprehensive development of learners and formation of a creative personality;
4. To promote learners creative work, research, motivation, participation in the implementation of the educational process.

#### Work tasks of methodological commissions are:

1. To implement the achievable results specified in the professional standard;
2. To ensure interdisciplinary connection between general and professional education subjects;
3. To promote and support creative activity and professional development of teachers;
4. To analyse achievements of OTC students in learning/study work, causes of underachievement, as well as the results of the work of the teaching staff;
5. To motivate learners to improve by developing skills to learn/study and inquire about processes in OTC, society and world;
6. By cooperating with industry members evaluate each qualification and determine the optimal scope of practice and duration of the acquisition of qualification.

Table Nr. 6

**Tasks of methodological commissions**

Tasks	Implementation date	Responsible	Performance indicators
To improve the content of the existing educational programs	2021 - 2027	Methodological commissions	<ul style="list-style-type: none"> <li>• Content improved OTC educational programs (prof. sch. – 4, 1<sup>st</sup> level – 3)</li> <li>• Approved in accordance with the requirements of the educational standard and professional standards (prof. sch. – 8, 1<sup>st</sup> level – 5)</li> </ul>

Update educational programs in cooperation with NEP and employers	2021 - 2027	Methodological commissions	<ul style="list-style-type: none"> <li>• Updated educational programs (prof. sch. – 4, 1<sup>st</sup> level – 3)</li> </ul>
To ensure the educational process in two streams	2021 - 2027	Director Methodological commissions Head of the structural unit Study division	<ul style="list-style-type: none"> <li>• The organization of the educational process has changed (two flows)</li> </ul>
Develop sample programs in accordance with the new vocational education standard	2021 - 2023	Methodological commissions Head of the structural unit Pedagogues	<ul style="list-style-type: none"> <li>• A program for chemical process technicians with specializations has been developed (1 program)</li> <li>• Biotechnological process technician program developed (1 program)</li> <li>• A chemical technician program with specialization has been developed (1 program)</li> <li>• A chemical production operator program with specialization has been developed (1 program)</li> </ul>
Introduce a motivation program for teachers	2021 - 2023	Head of the structural unit Deputy director for studies and research Director	<ul style="list-style-type: none"> <li>• Various measures have been introduced to motivate teachers (2 activities per year)</li> <li>• New teachers of vocational subjects and general education subjects are attracted (on request)</li> <li>• A motivation program for teachers has been created (1 program)</li> </ul>
To develop methodological materials for the implementation of educational programs	2021 - 2023	Methodological commissions	<ul style="list-style-type: none"> <li>• Methodological materials developed (according to the number of EP modules)</li> <li>• Digital teaching aids have been developed (3 teaching aids)</li> <li>• The availability of study materials in the OTC e-environment is ensured (provided 50 % of EP, prof. comp. modules)</li> </ul>

Maintain, restore and supplement the existing material and technical equipment and environment	2021 - 2024  2021 - 2022	Methodological commissions Head of laboratory Economic manager Director	<ul style="list-style-type: none"> <li>• The existing material and technical support of OTC was maintained and renewed (80 %)</li> <li>• Upgraded teaching equipment (20 %)</li> <li>• Renovation of premises and improvement of the environment (green class, sports block)</li> </ul>
To create an offer of education in the interests of natural sciences for OTC students and other interested parties, for the acquisition of more in-depth natural science skills	2021 - 2024	Methodological commissions Head of the structural unit Deputy director for studies and research	<ul style="list-style-type: none"> <li>• An offer of education in the interests of natural sciences has been created (5 interest EP)</li> <li>• SRWs developed in cooperation with other educational institutions (5 SRWs)</li> </ul>
Improving the IT user skills of the teaching staff	2021 - 2023	Methodological commissions Teaching staff	<ul style="list-style-type: none"> <li>• Developed recommendations and explanations on how to work with the platforms selected by OTC (3 manuals)</li> <li>• Explanations of virtual laboratory works in Latvian have been translated and tested (7 explanations)</li> <li>• Improved user skills of teachers (3 lessons)</li> <li>• Introduced job unit IT operations and user support specialist (1 job unit)</li> </ul>
Development and implementation of a lifelong learning and continuing education offer	2021 - 2023	Methodological commissions Head of the structural unit Deputy head of unit in teaching and vocational education Deputy director for studies and research Study division	<ul style="list-style-type: none"> <li>• Research of necessary and required qualifications in the labor market has been carried out (1 analysis of research data)</li> <li>• Lifelong learning programs developed and implemented (5)</li> <li>• Continuing education programs developed and implemented (5)</li> <li>• Other necessary professional development has been implemented (at the request of employers)</li> </ul>

Upbringing work within the educational process	2021-2027	Methodological commissions Teaching staff	<ul style="list-style-type: none"> <li>• Implemented annual work plan (90 %)</li> <li>• Promotion of cultural education and patriotism in the OTC (1 activity per month)</li> </ul>
Projects	2021 - 2027	Head of the structural unit Deputy director for studies and research Director	<ul style="list-style-type: none"> <li>• Existing projects implemented (10 projects)</li> <li>• Get involved and attract new projects (according to the planning period 2021 – 2027)</li> </ul>

### 3.3. Career development support in OTC

The situation in the world, in the study and work environment, is constantly changing, because with the development of technology, the requirements for the quality of the workforce and professional growth are rapidly increasing. New requirements have been set for vocational education in the development of learners' knowledge and skills, the transition to competence-based education, the development of a modular and digital approach in the educational process, as well as the introduction of an effective, sustainable career development support system. In order for a modern person to be active and active in the work environment, it is necessary to constantly improve their skills and acquire new competencies.

Career development support can no longer be seen as a mere useful support for an individual in the transition from one level of education to another and from training to work.

Career development support in OTC is organized according to the legislation of the Republic of Latvia and OTC internal regulatory enactments. The priority is to develop the learner into an educated, creative, purposeful, motivated, well-qualified and comprehensively developed personality.

A stand "Career" has been created to inform students about current career development support issues.

Information on the professional work of graduates after the completion of the educational program has been collected.

#### Overarching goal of career guidance:

Provide effective, qualified and systematic career guidance to all through short- and long-term career guidance activities that include access to career information, career education and counseling for learners to set and plan career goals for education and employment.

To promote and develop individual career management skills by providing planned activities, courses and programs to help learners develop skills in matching their interests, abilities and opportunities, setting their career goals, career management, providing knowledge and understanding of the world of work, its connection with education, on career planning and further education opportunities, as well as on ensuring effective participation in working life.

### The purpose of career education:

To organize the content of education and the process of acquiring education, ensuring the acquisition of basic knowledge and basic skills necessary for the learner's self-examination, career research and career planning and management, to create a basis for timely, informed and balanced decision-making on further education. Career education must be integrated into the whole educational process.

## 3.4. Planned own revenues

### Types of existing own revenues

1. Revenues for dormitory services
2. Revenues for rental of non-residential premises
3. Revenues for educational services (paid studies, continuing education courses)
4. Revenues for office services
5. European funds raised (ESF, ERAF, ERASMUS+).

### Target audience:

1. Internal – students, college staff
2. External – other individuals, companies.

### Involved resources:

Assets of the institution – real estate, equipment, staff.

### Types of planned own revenues:

1. To develop paid studies
2. To develop non-formal education
3. To attract financial resources of cooperation partners to support certain target programs and employers to create new educational programs
4. To develop range of laboratory services.

Table Nr. 7

### Improvement opportunities for the next 7 years

Measures	Measurable indicative/achievable indicators (number, EUR)	Implementation time	Influencing factors
Update of existing paid services surcharges	EUR	2021 - 2027	1. Recovering the costs of the fixed assets involved, taking into account the life cycle of the equipment, updating the maintenance cost

Existing paid service types of volume increase/decrease	Number, EUR	2021 - 2027	<ol style="list-style-type: none"> <li>1. Number of service recipients;</li> <li>2. Learners – affected by the execution of the admission plan;</li> <li>3. Individuals, companies - affected by the economic situation in the country (for example, the emergency situation due to the Covid-19 pandemic, competition, availability of equivalent services in the immediate vicinity).</li> </ol>
Generation of new types of revenue	EUR	2021 - 2027	<ol style="list-style-type: none"> <li>1. To develop paid studies;</li> <li>2. To develop formal and non-formal education;</li> <li>3. To attract financial resources of cooperation partners to support specific target programs and employers to create new educational programs;</li> <li>4. To develop range of laboratory services.</li> </ol>

Table Nr. 8

### Sensitivity analysis of planned budgetary growth

Indicators	Data for 2021	Planned growth in 2023 against 2021	Planned growth in 2024 against 2021	Planned growth in 2027 against 2021
Optimistic estimate	30 000	+10 000 increase for implementation of measures 1 and 2	+15,000 increase based on the implementation of Group 3 measures, to open 1 paid group	+ 40,000 increase for the implementation of Group 3 activities, to open 2 paid groups.
Pesimistic estimate	30 000	Maintain the level of own revenue in 2021 in the event of delays in the implementation of improvement measures due to external factors.		

## 3.5. Detailed description of the strategic goals

### OTC strategic objectives and priorities, their achieving indicators

Latvia's Sustainable Development Strategy until 2030 ("Latvia 2030") (approved by the Saeima on June 10, 2010) in accordance with the European Union's growth strategy for the next decade "Europe 2020" has outlined the main goals of sustainable development and the main directions of action to achieve them. **High-quality, lifelong and creativity-oriented education** is a necessity of this century that responds to the challenges of global competition and demography. As the population shrinks and society ages, it is important to increase the productivity of human capital and it requires high-quality education. Latvia's Sustainable

Development Strategy to 2030 ("Latvia 2030") has set three main priorities that are interlinked: smart, sustainable and inclusive growth.

### **3.5.1. Development of a new offer of educational programs**

#### **Update and modernize existing education programs, promoting closer involvement of companies in the sector**

- To update and modernize the existing educational programs on the basis of the map of professions of the chemical industry and its related industries, in cooperation with the NEP and in accordance with the demand of the industry;
- To update educational programs in accordance with the new guidelines of the Ministry of Education and Science
- To make changes in short-cycle educational programs in accordance with the newly developed professional standards.

#### **To develop new, modular educational programs that meet the requirements of the labor market**

- To develop new educational programs in accordance with the developed module maps, professional standards and other MES guidelines;
- Adapt educational programs in accordance with the requirements of the labor market and the capacity of the OTC;
- To teach learners to search, critically perceive and process information, to think analytically, to work professionally and creatively, to develop entrepreneurial skills.

#### **Motivate for lifelong learning**

- To promote the availability of education by using the experience, knowledge and resources accumulated in the institution;
- To support the implementation of educational programs and separate courses and modules in foreign languages to attract foreign stakeholders;
- To implement the concept of lifelong learning and career education development, further education offer;
- To organize seminars, conferences and lecture cycles.

**Achievable indicator 3.5.1:** By 2027, develop and implement 7 new vocational education programs that meet the requirements of the labor market.

### **3.5.2. Provision of human resources**

#### **To attract highly qualified human resources**

- To provide modern work environment with appropriate equipment;
- In cooperation with the founder and other educational institutions, attract teachers to OTC;
- In cooperation with companies, attract highly qualified teachers by creating a flexible training/study schedule for them.



### **Implement a common personnel policy**

- To form a team with a common understanding of OTC's mission, values, ethical principles, culture and traditions;
- Provide qualified, positively motivated and loyal staff;
- Make effective use of the skills, abilities and talents of employees that are relevant to the labor market.

### **Motivate and provide personnel growth opportunities**

- To develop pedagogical capacity by organizing experience exchange events, courses, seminars, master classes, involving industry specialists and guest lecturers;
- To attract a social pedagogue and a psychologist by promoting the professional development of teachers;
- To support the student teaching staff by adapting a flexible work schedule

### **Targeted assessment of employees' qualifications and competencies when planning their professional development**

- To improve the system of assessment and stimulation of pedagogical and professional competence growth;
- In coordination with the OTC administration, plan the employee's professional development, OTC activities and professional development.

**Achievable indicator 3.5.2:** By 2027, attract 5 motivated, highly qualified teaching staff and industry professionals.

## **3.5.3. Provision of practice places**

### **To cooperate with employers' representatives in coordinating internship programs**

- In cooperation with the Latvian Association of Chemical and Pharmaceutical Entrepreneurs and company managers, identify internships;
- Improve internship programs and modules, adapting them to industry requirements and company specifics.

### **In cooperation with the food, chemical and allied industries, metal processing, machine building and mechanical engineering industry and leading companies to provide learners with high quality internships and practical training**

- To identify the companies as close as possible to the place of residence of the learners, corresponding to the industry;
- To provide learners with a high quality of internships and practical training, implementing internships in a real work environment, with labor market requirements and opportunities;
- Involve students in the LDDK project SAM 8.5.1. Work-based learning or in-company training.

### **To promote international exchange of experience in the framework of projects (Erasmus +, PoVE-Water, etc.)**

- To promote the international dimension by expanding cooperation with educational institutions of a similar profile abroad;
- To continue the started and start new projects to improve the quality of education.

**Achievable indicator 3.5.3:** With the increase in the number of vocational education programs, to expand the range of internship partners to 50% of the existing number of internship partners by 2027.

### **3.5.4. Increase in the number of learners**

#### **To create a positive image of the institution, field of natural sciences and industry**

- To promote closer involvement of companies in the sector in the improvement of educational programs - specialist lectures, company visits, demonstrations of the latest technologies, etc .;
- Participate in state and municipal level career events

#### **To improve the educational programs implemented by OTC in modern infrastructure**

- Provide access to training facilities and equipment, as well as modern material base and technologies;
- To create a learning environment corresponding to a modern infrastructure by offering innovative teaching materials and promoting the use of the developed teaching aids.

#### **To popularize graduates' success stories, creating an idea of future opportunities in the industry**

- To promote cooperation with OTC graduates in order to inform the public about educational opportunities in the institution and to promote OTC values;
- With the professional activity of OTC graduates working in the field, to create the recognition of the institution and the sector by organizing public activities that promote the attractiveness of the education implemented by OTC and popularize future opportunities in the field.

#### **Individual approach to each learner, reducing the risks of early learning, study leaving**

- Evaluation of records of learning outcomes and absences, their relation to the analysis of risks of early termination;
- To work preventively to reduce the risks of early school leaving by applying an individual approach to each learner;
- To continue working in the European Social Fund project no. 8.3.4.0/16/I/001 "Support for the reduction of early school leaving".

#### **Encourage parental co-responsibility in the educational process in a vocational secondary school**

- Involve parents in OTC educational processes by conducting surveys on the learning process, environment, daily life;
- Explain in depth to parents the uniqueness of educational programs and future opportunities in the labor market.

**Achievable indicator 3.5.4** .: In 2027, the number of students in professional secondary education programs is not less than 200, in the 1st level professional higher education study programs not less than 75.

In order to meet the achievable indicators in OTK, the following activities are performed:

*Table Nr. 9*

<b>Nr.</b>	<b>Activity</b>	<b>Time of event</b>	<b>Responsible for enforcement</b>
1	Meeting on the admission of the next school year, the programs to be implemented	september - october	Deputy director for studies and research; Head of the structural unit
2	Updating the admission procedure for students - in college; vocational high school	november/january	Deputy director for studies and research; Head of the structural unit
3	Meeting on the implementation of the reception plan; division of responsibilities	February	Director
4	Coordination of admission with the industry in all accredited programs, placement on the website <a href="https://otk.rtu.lv">https://otk.rtu.lv</a>	after receiving of information from the Ministry of Education and Science	Deputy director for studies and research; Head of the structural unit
5	Development, updating, approval and reproduction of information and advertising materials	as necessary and possible	Director; Deputy director for studies and research; Head of the structural unit

6	<p>Promotion of information materials:</p> <ul style="list-style-type: none"> <li>• on the website <a href="https://otk.rtu.lv">https://otk.rtu.lv</a></li> <li>• in advertising and newspapers</li> <li>• TV, regional televisions where possible</li> <li>• activities on social networks facebook; Instagram</li> <li>• participation in exhibitions</li> <li>• releases</li> </ul>	<p>continuously as far as possible as far as possible</p> <p>continuously as far as possible february, june</p>	<p>Director; Deputy director for studies and research; Head of the structural unit</p>
7	<p>Providing information on educational opportunities for employers in student/student placements, partnerships, associations and councils</p>	<p>continuously; according to offers and requests</p>	<p>Deputy director for studies and research; Head of the structural unit</p>
8	<p>Professional orientation in Latvian schools, career days, meetings with potential students and students online</p>	<p>continuously; according to offers and requests, and epidemiological situation in the country</p>	<p>Deputy director for studies and research; Head of the structural unit</p>
9	<p>Open days:</p> <ol style="list-style-type: none"> <li>1) Presentations of educational programs</li> <li>2) Meetings with lecturers, teachers, students</li> <li>3) Getting acquainted with the premises and laboratories of the educational institution</li> </ol>	<p>january, march, may <b>3</b> times</p>	<p>Deputy director for studies and research; Head of the structural unit</p>
10	<p>Meetings on the evaluation of the implementation of the admission plan, making changes</p>	<p>Once a semester</p>	<p>Deputy director for studies and research; Head of the structural unit</p>

11	Preparation of necessary materials for registration of documents submitted by applicants	June	Secretary (by order); Deputy director for studies and research; Head of the structural unit
12	Reception work - acceptance of documents, answers to questions in person, by e-mail, by telephone	june - september	Secretary (by order), and, if necessary, other employees of the educational institution
13	Meetings with applicants, their parents, young group tutors, program leaders and school administration	August	Deputy director for studies and research; Head of the structural unit
14	Survey of applicants, where they obtained information about RTU OTC, in order to determine the effectiveness of the information measures taken, as well as to discover new information channels	September	Study division; Head of the structural unit; Group educators

### 3.5.5. Application of infrastructure and technologies

#### **Make meaningful use of new, modern infrastructure and technologies and develop their interdisciplinary applications**

- To ensure cross-curricular links and transversal skills in the implementation of educational programs;
- Make meaningful use of laboratory infrastructure for practical research;
- Improve information technology infrastructure by increasing users' IT skills.

#### **To promote the improvement of practical scientific activity**

- To link education and research by improving the quality of studies;
- Carry out research on the development of new products and technologies;
- To create topical educational programs in the field of STEM;
- Carry out a feasibility study of commercialization opportunities for the planned research projects.

### **Identify potential growth opportunities and future prospects following the basic principles of the "green course"**

- To ensure the utilization of raw materials for practical research work, in accordance with the basic principles of the “green course”;
- To use the maximum benefit of the performed energy efficiency of buildings, reducing the consumption of heat energy and its impact on the environment;
- Continue sorting waste, including waste paper collection and transfer.

### **Improve IT applications and work on digitization**

- Improve information technology infrastructure and approbate DMM;
- Ensure day-to-day IT monitoring and user co-responsibility;
- To create a unified concept for further development and digitization of the IT field.

**Achievable indicator 3.5.5:** To increase the use of infrastructure and technology by 20% by 2027.

### **3.5.6. High efficiency of economic activity**

#### **Resource-efficiently and sustainably optimize the economic functions performed by the institution**

- To ensure high efficiency of economic activity by optimizing the economic functions implemented by the institution;
- To create an attractive territorial complex with modern infrastructure, creating a modern learning environment, including a gym, a dormitory service, as well as to ensure its accessibility for people with special needs.

#### **To improve financial and administrative management**

- To improve the financial planning and control system
- To increase resource efficiency.

#### **In cooperation with the founder, to organize the procurement of services necessary for the provision of the activity**

- Organize, participate in the founder's joint procurement in order to effectively use the allocated financial resources;
- Involve the founder's human resources in addressing OTC development issues.

**Achievable indicator 3.5.6:** To reduce the expenses for the maintenance of the existing (by 2021) infrastructure by 10% (excluding inflation and the increase in the price of services) by 2027.

## 3.6. Planned “Green” investments and activities in OTC

### Sustainable development

Integrating all UN Guiding Principles on Sustainable Development (SDGs) into teaching, learning, science, valorisation and governance processes. Sustainable and efficient use of resources, reduction of negative impact on the environment. OTC's corporate social responsibility has been promoted in cooperation with OTC's key stakeholders.

### Tasks for the implementation of the strategy

Strengthen the competence and understanding of teachers about the UN SDG. To develop a mapping of OTC training and study programs, determining the contribution of each training/study program to the implementation of SDG. To create and improve an inclusive learning and study environment that promotes sustainable development.

To promote the sustainable development and efficient use of OTC infrastructure. To create and promote Olaine as a smart city of the future, a place for the creation, demonstration and testing of green technologies. Involve OTC staff and learners in improving the OTC environment and infrastructure.

To promote the strengthening of inclusive values and the development of an inclusive environment. To promote the updating of the importance of the concepts of diversity and equality among the staff and the implementation of the OTC in everyday life. Organize activities aimed at different groups of the society in a planned way with the aim to create the image of a socially responsible and sustainable college.

Concentrate OTC training, study, science, valorisation and dormitory service infrastructure in the immediate vicinity of OTC. To create new and transform the existing premises according to the principle of common use. Centralize OTC infrastructure management. To promote more efficient use of premises. Reduce energy consumption.

Reduction of energy consumption: Target: 20% reduction (2025 to 2020). The target is a 25% reduction (2027 vs. 2020).

Implement the EFQM quality management model. Mapping and regular review of all OTC processes to reduce administrative burdens and resource consumption. Carry out an annual assessment of administrative processes to identify the most complex and resource-intensive ones.

## 3.7. Additional information to be included in the OTC strategy

### OTC cooperation with organizations and institutions in Latvia

From July 2019, OTC is an agency of Riga Technical University. RTU is the highest governing body and decision-making body in strategic, financial and economic matters.

Cooperation takes place for the continuity of the educational process, the institution's strategic vision for the future and current issues.

OTC is a member of the Latvian College Association. OTC also cooperates with LU, LLU, RSU, colleges and other vocational secondary education institutions, PIKC in matters of

educational content. OTC structural unit: professional secondary school, closely cooperates with PIKC Riga State Technical School in the field of chemistry.

OTC regularly cooperates in vocational education studies and training with the Ministry of Education and Science and its subordinate institutions - AIC, VICS, IKVD, VIAA.

In order to promote the development and improvement of educational programs, OTC cooperates with industries and their representative associations - LAĶIFA, MASOC, Latvian Biogas Association. These associations are represented in the relevant Sector Expert Councils of the LDDK, where educational issues are discussed and resolved.

OTC has close cooperation with various companies in the field, which provides internships, participates in professional qualification exams and is a potential employer of graduates. The most significant are Grindeks, Olainfarm, Latvijas Balzams, LVMI "Silava", Food UNION, etc.

OTC is located in Olaine and is the only vocational education institution in the region, so OTC has close cooperation with Olaine County Council and Olaine County Business Support Center, Popcorn Youth Center. OTC also cooperates with many other Latvian municipalities and their institutions.

### **OTC international strategy**

The OTC's international strategy is to develop the college as a whole in order to raise and improve the standards of education and training based on the latest developments in higher education in Europe, and to develop and strengthen international cooperation and the mobility of academic staff.

The study process at OTC is purposeful and based on the determinants of the labor market set by employers. Students, taking into account their experience and need, realize their inner potential. Active and successful participation in EU education programs and projects is considered one of the most important directions in the concept of the OTC strategy.

One of the strategic goals of OTC is to promote the international dimension of students' and staff's activities by supporting the internationalization and mobility of the study process. Therefore, regular planning and coordination of Erasmus activities in the short and long term is an important responsibility and task of the administration. To achieve this, is necessary:

- increase the number of outgoing and incoming Erasmus students;
- enable full-time students and OTC staff to participate in international mobility at least once every 3 years;
- to integrate the principles of international mobility into the daily activities of the OTC;



- to provide information support, communication with cooperation partners, preparation of mobility, problem solving and dissemination of good practice for the quality of Erasmus activities;
- work in the long term with other Erasmus activities that will be available in 2021-2027, such as Erasmus Intensive Programs, curriculum development projects, projects aimed at developing cooperation between higher education institutions and enterprises.

The aim of the OTC is to engage in ERASMUS + European and international mobility activities in order to promote Erasmus activities.

The main criteria for selecting partners from the EU and non-EU countries are the common interest in training new professionals who can compete in the labor market, be knowledgeable and competent in the technologies used, share experiences and share cultural interests.

International co-operation is successfully facilitated by geographical diversity, in order to understand the development of the latest technological trends and operating principles in co-operation with neighboring and further countries in Southern, Eastern and Central Europe through European and international mobility activities.

The most important goals of OTC international cooperation are to improve the quality of 1st level (short-cycle) professional higher education, to motivate students and teachers to be creative in studies and work process, to create and strengthen international cooperation between universities (HEI) and companies.

The target group for European and international mobility is short-cycle students and HEI academic staff to develop and improve cooperation between higher education institutions (HEIs) and industry to meet rapidly evolving technological requirements, leading to the development of existing study programs and to create new ones, to develop a more efficient system for the assessment of knowledge, skills and competences, as well as to improve the structure and management of the OTC.

OTC's general policy is to work with both students and lecturers on the basis of non-discrimination principles, such as the inclusion of the basics of integration and tolerance of vulnerable groups in study programs. To ensure effective student participation in mobility, the OTC will use a credit transfer system and academic recognition.

In accordance with OTC's development vision and mission, one of its activities is to develop a network of partners. OTC is interested in supporting the activities of the Erasmus program, using available resources to promote international mobility and participation in international cooperation projects, the development of each individual and OTC in a generally intercultural environment.

OTC monitors the opportunities for change in European higher education and provides activities that promote the growth and benefits of students and academic staff. The future policy plan focuses on the cooperation of new partners and the increase of the number of partners in European countries and the provision of mobility opportunities for all students and academic staff in all study programs, with an emphasis on quality.

The aspect of internationalization is important and it is important that the OTC is able to use the availability of European funds to achieve this goal. OTC has resources for providing mobility activities.

Communication is a key for success. In order for OTC to provide incoming and increase the number of outgoing students and academic staff, activities in curriculum development and

other international project activities, it is necessary to provide language courses for outgoing/incoming students and academic staff with language skills and abilities. Providing information in English to foreign students and partner institutions on the OTC website - both staff contacts and required documentation. In general, OTC's international cooperation strategy excludes any form of discrimination based on ethnic or geographical origin, age, gender and religion, political or psychological beliefs.

The support of the Erasmus program is particularly important for the introduction of new ideas, the acquisition of new professional experience, the improvement of language and communication skills, networking and overcoming geographical barriers in the European Learning Area, which generally contribute to improving the quality of OTC study programs. This improves the quality of the curriculum, the quality of cooperation between different European Member States, the quality of the development strategy, and expands the range of partners involved in joint projects.

OTC confirms that participation in the program is linked to OTC's development strategy, will promote student and staff mobility, participation in European and international cooperation projects, improve the quality of higher education programs and students' experience in implementing EC higher education modernization and internationalization plans, in line with five key priorities:

- Raise the quality of higher education, providing Europe with the researchers and graduates it needs;
- Strengthen the role of higher education;
- Raise the quality of higher education through mobility and international cooperation;
- To promote the connection between higher education, science and business;
- Improve the monitoring and funding of higher education.

Erasmus Higher Education Charter 2014-2020 awarded by the OTC The principles have been developed for the quality organization of international mobility and the selection of students, giving everyone the opportunity to study abroad in the form of an exchange.

It should be noted that on 26 May 2020, the OTC developed and submitted a new draft ERASMUS Charter for Higher Education in English for the period 2021-2027, which incorporates the same principles. The new Charter was approved by the European Commission on 22 December 2020.

OTC implements the following Erasmus + activities, agreements have been concluded:

- Erasmus + project “Internship opportunities for vocational education students as well as students from vulnerable groups” (25.10.2021-24.01.2023), which will promote students' professional development and acquisition of competencies in the specialty;
- “Qualification internships abroad - investment in the development of the industry” (01.06.2020.-28.02.2022)
- Erasmus + Key Activity 1 “Mobility of Persons for Learning Purposes” (01.09.2021-31.10.2023)

Currently, OTC teaching staff participates in the international project PoVE-Water, which aims to reflect water management and sewerage issues in curricula. OTC faculty and students will continue to participate in various international projects and competitions.

## 4. Necessary investments

### 4.1. E-environment and its development in the OTC context

**The overarching goal of the OTC e-environment and its development is the popularization of chemistry and its related branches, the expansion of the target audience and the increase of the OTC student contingent, as well as the maintenance and improvement of the e-environment in accordance with the new guidelines and requirements.**

In 2020 OTC was developed **new home page** - <https://otk.rtu.lv>. The website has been developed in accordance with the Cabinet of Ministers Regulations No. 445 “Procedures for Institutions to Post Information on the Internet”, data security and protection requirements. The website is used for the formal provision of the institution's functions. The information is supplemented and updated as necessary. New sections "Library" and "Laboratories" have been developed and are available on the website.

#### **Planned activities for improvement:**

- It is necessary to adapt the content of the website and make it more engaging and interactive for the youth audience;
- Create sections “virtual school museum” and “experience stories”, “virtual OTC tour”;
- Post a chatbot on the website so that anyone who visits the website can ask a question and get an answer.

#### **Social networks used to promote the educational institution: Facebook, Instagram.**

OTC has both the official Facebook account and the Instagram account, where the latest information is posted.

The target audience of social networks is 14+ i.e. potential students, school students, their parents, OTC cooperation partners. Both Facebook and Instagram have improved, become better and more attractive in the last 2 years.

Social networks contain information about current events, occasions, undertakings, including information on student admission, etc. Paid ads on Facebook and Instagram are a one-off event - more during the reception to promote the institution and attract a certain audience.

#### **Planned activities for improvement:**

- Regular, paid advertising would be needed to promote OTC's profile and increase the number of followers;

- Creation of new advertisements, video recordings, “live” interviews with students, lecturers, teachers, school students;
- To expand the audience and provide information to young people in a more attractive and relevant format - Tik tok, Snapchat.

### **E-environment.**

Information about OTC can also be found on the websites of several cooperation partners, for example, <https://www.rtu.lv/>, <https://www.lifescience.lv/>, <https://www.olaine.lv/lv#gsc.tab=0> etc. Through the websites of cooperation partners, OTC provides information about the educational institution and the professional education programs available here.

#### **Planned activities for improvement:**

- Carry out data evaluation audits in the e-environment;
- Create publications using targeted keywords;
- Analyze statistics on OTC in the e-environment.

### **Communication and learning platforms.**

Currently, OTC uses such basic communication and learning platforms as **mykoob** (<https://www.mykoob.lv>), **moodle** (<https://www.moodle.lv>), **uzdevumi.lv** (<https://www.uzdevumi.lv>) and **letonika.lv** (<https://www.letonika.lv>). In order to better ensure the distance learning and study process, teachers additionally use communication platforms such as **Zoom** (<https://zoom.us>) and **Microsoft Teams** (<https://teams.microsoft.com>), and for more convenient placement of materials by assigning the materials to be performed and more convenient Use **Google Classroom** (<https://classroom.google.com>) and **Google drive** (<https://drive.google.com>) to get feedback.

#### **Planned activities for improvement:**

- To create methodological repositories available to learners and teachers;
- To use and update the use of the site ortus.lv more for work and education.
- Start using a digital practice diary (edy365.com), the learning platform skolo.lv, as well as follow the development and availability of educational e-platforms for educational institutions, consider the possibility of using them.

The planned activities require:

- financial resources
- human resources
- material and technical resources.

## 4.2. Laboratories of the 1st and the 2nd floor of OTC

In 2020, the following new study laboratories were opened and are in use:

- Inorganic and organic chemistry study laboratory
- Analytical chemistry study laboratory
- Chemical process study laboratory
- Pharmaceutical form technology study laboratory
- Biotechnology and renewable energy process study laboratory
- Viscous mass preparation study laboratory
- Building materials and cement study laboratory
- Food technology study laboratory
- Mechanical workshops
- Water purification and treatment process study laboratory
- Microbiology study laboratory

Laboratories are used and planned to be used in the future in accordance with the project objectives:

1. the study environment of the 1st level professional higher education STEM study at OTC has been improved;
2. equipment has been installed so that students can fully acquire the skills needed in the labor market, as well as promote new innovations and technological progress in the future, thus strengthening Latvia's competitiveness at the regional, European and global levels;
3. Laboratories that meet the requirements of the labor market have been established and are directly contributing to the achievement of the goal of SAM, as students in innovative laboratories acquire professional competencies that meet the requirements of companies in the sector;
4. The aim of the project corresponds to the areas of smart specialization mentioned in the Latvian Smart Specialization Strategy - biopharmacy, biotechnology, information and communication technologies, smart materials and technologies and engineering systems.

## 4.3. Planned investments in the OTC learning environment infrastructure

**Necessary investments in OTC learning environment infrastructure**

*Table Nr. 10*

Address of the real estate object 2 Zeiferta Street, Olaine	Necessary investments	Investments in EUR per student
Premises required to ensure the learning process	Operational Program "Growth and Employment" 8.1.4. Renovation works of the premises of the 3rd and 4th floors of the specific support objective "To improve the study environment in the colleges of the first level professional higher education STEM, including the medical and creative industries" total area 1679.50 m2 457 000 EUR Project no. 4.2.1.2/17/I/008 Roof waterproofing repair works within the framework of "Increasing the energy efficiency of RTU OTC buildings" 160,000 EUR  Renovation of the library and reading room 25,000 EUR, purchase of inventory 5,000 EUR	4 926,00  1468,00  275,00
Information and communication technologies	Equipping OTC premises with new IT equipment, facilities, etc. technologies EUR 30,000	275,00
Sports infrastructure	Renovation and repair of sports infrastructure 65,000 EUR, purchase of inventory - 5,000 EUR	642,00
Dormitory service	Develop a project for the renovation of a dormitory service and look for investment opportunities for its implementation	The costs will be specified after investigating the scope of work
Territory improvement	To perform repair works and improvement works in the territory of OTC, incl. in cooperation with Olaine municipality (repair of stops and footpath).	

## 5. Communication strategy

### 5.1. Key messages of communication

OTC has created a website (see <https://otk.rtu.lv/>) so that anyone who wants to get information about an educational institution can navigate it quickly and easily. The main information on the website is: History and traditions of the institution, mission and values, budget information, regulatory documents, paid services, vacancies, procurement, alerting, cooperation partners; Information about the college - admission conditions, study programs and their description, regulations, etc. information; Information about vocational secondary school - admission conditions, study programs and their description, further education, extracurricular activities, secondary school self-evaluation; Projects; Description of laboratories; Library; Contacts.

The most important information about OTC is placed in the "News" section of the website. The website is used for the formal provision of the institution's functions. The information is supplemented and updated as necessary.

OTC has created a social account facebook.com, which currently has more than 500 followers, as well as an Instagram profile. The social account contains the most up-to-date

information about the educational institution and the activities that have been or will be. Over time, the number of followers increases, which indicates a purposeful action in creating and promoting the image of the institution.

## **5.2. Communication goals**

Planned and structured improvement of internal and external communication. Positioning the image of OTC, defining and communicating competitive advantages using a modern, high-quality and targeted communication approach.

### **Tasks for the implementation of the strategy:**

Develop an external communication concept with a unified OTC message. Encourage students' and young people's interest in chemistry and related sciences, including by setting up collaborative platforms with schools and teachers in STEM. Raise the image and visibility of the OTC in society by proactively developing cooperation and a concrete message to the following important target audiences of the OTC - entrepreneurs and industry associations, state and municipal institutions, organizations and decision-makers, media, students and parents, educational institutions.

Improve the flow of internal information - both among OTC staff and learners. To promote the strengthening of the OTC as a unified organization with all its structural units and employees and the orientation towards the achievement of common goals.

To update respectful communication as a value in different levels and channels of communication. Implement the development of staff communication competencies and training, defining the minimum level of communication skills required for each staff group.

Make the most of digital solutions and tools in OTC's internal and external communication. Maintain and restore a wide range of communication channels according to different audiences. Take care of high-quality, modern and channel-appropriate visual communication and content.

To optimize and systematically coordinate international and local cooperation between external partners and OTC structural units and employees. To review and prioritize cooperation partners, to promote cooperation with strategically important partners, organizations, commercial enterprises and OTC graduates.

The following will be considered as successful achievement of communication goals:

- Increase in the number of OTK students
- Recognition of the institution in the media, including an increase in the number of followers of social networks
- Expansion of the circle of cooperation partners.

## **5.3 Communication target groups**

*Table Nr. 11*



### OTC communication target groups

Priority	Audience	Characteristics	Needs
<b>high (primary school)</b>	primary school student School student travel map (grades 8-9)	15-16 years, Latvia, basic education, industry - education; Interests: natural sciences, chemistry, physics, etc., sports	curiosity, experiments, research, interesting field and future job opportunities
<b>high (secondary school)</b>	people with secondary education	17+ years, Latvia, secondary or secondary professional education, industry - education; Interests: natural sciences, chemistry, physics, etc., sports	career development, salary, stable job, curiosity
<b>medium</b>	parents	specialists of a wide profile, with different levels of education, knowledge and skills	high-quality, prestigious education, perspective and a well-paid profession in demand in the national economy
<b>low</b>	adults (Olaine)	18+ years, Latvia - Olaine, different levels of education, industry - education; interests: various	place of work - Olaine, educational institution - Olaine; stable work and pay

*Table Nr. 12*

### Learner's travel card

	Information / Motivation	Choice	Submission of documents	Admission / Payment	Studies / Learning	Loyalty
<b>What is the goal of the learner (client)</b>	education	education market research	application to OTC	budget; previous preparedness	diploma	belong to an educational institution/industry
<b>What questions asking?</b>	duration of studies, content of programs, exam procedures	analogues of the offer	when, at what time, by what date, how to get, what documents?	how to fill in an application, who fills in this form, is there a competition, do I have to pay?	how long, what subjects, what teachers - young, old? Practice opportunities	will support be provided?
<b>What are the interactions points/communications channels?</b>	social networks, e-communication, telephone	i-net	electronically/ in person	electronically/ in person	face to face/remotely (theory)	according to the age / habits of the young people
<b>What are the barriers?</b>	self-generated and external (lack of information and/or abundance of information)	internet speed, technical barriers	digital skills, language skills	distance of residence, digital skills	success, practical skills	own personal attitude/ reluctance



<b>Barrier reduction options</b>	information filtering/ selection	development of digital skills	development of digital skills, language development	development of digital skills	consultations, development of knowledge and skills	interest in
<b>Someone has to be measurable result</b>	selection of professions and qualifications of interest	choice of a specific profession, qualification	submission to OTC	included in the number of pupils/students	success	diploma
<b>Emotional state, feelings</b>	obscurity	concreteness	enjoyment	stability	curiosity	excitement
<b>Which people or which department is responsible for it?</b>	administration	vocational subjects commission, teachers	secretary of the admission commission	admission commission	all teaching staff	administration, group educators

## 5.4. Communication channels/methods

OTC's marketing activities are carried out on social networks, as it is an effective and engaging environment for young people. Media activities are carried out: TV, radio, newspapers, exhibitions, booklets, etc. Respondents are purposefully surveyed about the sources of information about OTC, the answers show that further activities should be planned and carried out on social platforms.

OTK should introduce a new staff vacancy: a public relations and advertising manager, whose responsibilities would include evaluating and planning the necessary activities in the media, establishing cooperation with target groups.

The self-government of pupils and students is very actively involved in the promotion of the institution by creating video tapes and carrying out other activities that are posted on OTC social networks.

## 5.5. External and internal communication

*Table Nr. 13*

### OTC communication

	Strengths	Weaknesses	Threats	Opportunities
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<b>EXTERNAL COMMUNICATION</b>	Social networks (Facebook, Instagram), website. Path of friends (circle of acquaintances). RTU brand/image - strong image.	Limited funding. Targeting - segmentation. Lack of public relations specialist. There is no regular work on communication (planning).	Due to the pandemic, there is a lack of certain communication activities (career trips, exhibitions, etc.) Limited outreach of information communications, strictly controlled media market. Weak level of knowledge of natural sciences. Competitor analysis (promotion of other educational institutions).	Improving the use of social networks, supplementing them in communication with the target audience. Industry demand and support. Success stories (graduates).
<b>INTERNAL COMMUNICATION</b>	Written/electronic communication. Meetings (administrations, teachers, technicians, etc.).	Interaction and oral communication (during a pandemic).	Directive execution of instructions	Involve more colleagues in the execution of decisions.

### OTC structure diagram





