Final report on the implementation of Polytechnic of Rijeka strategy for 2013-2020 in a shorten period of execution

INTRODUCTION

The Strategy of the Polytechnic of Rijeka for the period 2013 – 2020 was adopted at the meeting of the Academic Council of the Polytechnic of Rijeka on 22nd March 2013. The creation of the Strategy became necessary due to:

- the process of accession to the EU;
- the need to take part in the European Higher Education Area and European Research Area;
- the implementation of the Bologna Process;
- the need to improve mobility programmes;
- the need to align with the European Qualifications Framework;
- the need for orientation towards lifelong learning;
- the need to build an integrated quality assurance system;
- the need to better connect with the economic sector;
- changes in the manner higher education and research are funded.

The strategy defines the following:

- mission and vision of the Polytechnic of Rijeka;
- strategic goals and tasks of the Polytechnic along with measurable indicators of achievement;
- measures for monitoring and advancing in the implementation of the Strategy;
- persons and bodies needed to implement the Strategy, and to monitor the indicators of achievement of the defined tasks in given time-limits;
- documents to be adopted by the Polytechnic of Rijeka for the purpose of implementation of the Strategy;
- flowchart of the activities defined by the Strategy.

The starting point for the development of the Strategy of the Polytechnic for the period from 2013 to 2020 was the current state and level reached in the development of the

Polytechnic in the previous period. The possibility of achieving the foreseen goals was significantly influenced by changes in the circumstances in which the Polytechnic of Rijeka operates, whereby the following are distinguished:

- the letter of expectations in the reaccreditation process (eliminating shortcomings in terms of the ratio of students to full-time teachers);
- policy on employment and advancement into higher professional ranks of the Ministry of Science and Education;
- adverse demographic trends;
- changed financing conditions.

This has caused the need to develop a new development strategy, on which a Decision of the Academic Council of the Polytechnic of Rijeka, Class: 003-08/18-04/01 File no.: 2170-57-01-18-21/DĐ was adopted, and this report is the final report on the implementation of the Strategy of the Polytechnic of Rijeka for the period 2013 – 2020 analysing the period 2013-2018, namely a part of the existing indicators for the period 2013-2019.

In conclusion, all the activities carried out or the achieved goals of the Strategy have led to significant improvements in almost all aspects of life and work at the Polytechnic of Rijeka. The realization of the set goals with the indicators of achievement by key areas is shown below:

- Studies and students;
- Professional and scientific work;
- Resources human, material and financial resources;
- Connection to the environment and adjustment to the needs of the community;
- Integration into the European Union, openness and mobility.

STUDIES AND STUDENTS

Strategic Goal 1: By conducting professional and specialist professional graduate studies, the Polytechnic of Rijeka provides high quality and efficient education based on learning outcomes and highly professional flexible profiles. Education at the Polytechnic of Rijeka is oriented towards flexible ways of learning and lifelong learning, in line with the needs of the economy and the development of society.

Reform of the study programmes and flexible development of highly professional profiles

- Task 1.1: Maintain a practicable number and ratio of professional and specialist professional graduate studies.
- Indicator 1.1: The number of accredited study programmes of professional and specialist professional graduate studies at the Polytechnic.
- Task 1.2: Reconcile the ratio between the number of students enrolled in specialist professional graduate studies with the demand on the labour market.
- Indicator 1.2: The number of students in respective professional and specialist professional graduate studies enrolling in the first year of studies.
- Task 1.3: Organize the specialist professional graduate study of Olive Growing and Oil Production by the end of June 2014.
- Indicator 1.3: Specialist professional graduate study of Olive Growing and Oil Production is organized by the end of June 2014.
- Task 1.4: Organize a two-year specialist professional graduate study of Winemaking by the end of June 2014.
- Indicator 1.4: The two-year specialist professional graduate study of Winemaking is organized by the end of June 2014.
- Task 1.5: Organize the specialist professional graduate study of Apiculture by the end of June 2015.
- Indicator 1.5: The specialist professional graduate study of Apiculture is organized by the end of June 2015.

Currently, 10 professional undergraduate studies and 5 specialist professional graduate studies are being performed at the Polytechnic of Rijeka, indicating that the practicable ratio of undergraduate and specialist studies has been maintained in the analysed strategic period (Indicator 1.1.). At the same time, strategic tasks were revised in order to maintain the practicable ratio of the number of programmes, but also in accordance with the needs of the labour market and the local community. Instead of organizing specialist

studies of Olive Growing and Oil Production and Apiculture (Tasks 1.3 and 1.4), a new professional undergraduate study Sustainable Agritourism has been accredited. The justifiability of the above is confirmed by the Indicator 1.2 of Task 1.2. - the number of students in respective professional and specialist professional graduate studies enrolling in the first year of study, i.e., the achieved ratio of the total number of students enrolled in the first year of undergraduate and specialist studies of 70:30% (Table 1.). Likewise, in the previous period, a one-year specialist study of Winemaking was also innovated so that it is harmonized with the Bologna Declaration, i.e. the 3 + 2 model, and is now being performed in the duration of two years (Task 1.4).

Table 1.: The number of students in individual undergraduate and specialist professional graduate studies enrolling in the first year of studies

	2013	/2014	2017	/2018	Total	
Study name	Full time	Part- time	Full time	Part- time	2013/14	2017/18
PUS Road Transport, Rijeka	54	45	58	33	99	91
PUS Information Science, Rijeka	69	67	50	50	136	100
PUS Mediterranean Agriculture, Poreč	23	8	8	5	31	13
PUS Entrepreneurship, Rijeka	59	95	45	41	154	86
PUS Entrepreneurship, Pazin	30	14	17	17	44	34
PUS Postal Services, Rijeka	24	4	/	/	28	/
PUS Occupational Safety, Rijeka	49	39	45	30	88	75
PUS Telematics, Rijeka	30	25	30	19	55	49
PUS Winemaking, Poreč	27	9	12	2	36	14
PUS Railroad Transport, Rijeka	20	0	20	4	20	24
PUS Road Transport, Ogulin	0	17	/	/	17	/
PUS Railroad Transport, Ogulin	0	3	/	/	3	/
Total PUS	385	326	285	201	711	486
SPGS Transport	24	20	15	20	44	35
SPGS Information Technology in Business Systems	20	20	16	16	40	32
SPGS Entrepreneurship	41	58	15	19	99	34
SPGS Occupational Safety	21	11	15	18	32	33
Total SPGS	106	109	61	73	215	134
TOTAL	491	435	346	274	926	620

Task 1.6: Work on increased flexibility of individual study programmes. Indicator 1.6: Number of programmes with increased flexibility.

The adaptation of study programmes to changes and requirements is determined by legislation and associated procedures. The flexibility of the study programmes at the Polytechnic of Rijeka is reflected in the elective courses provided in individual study programmes, which enable the content to be adapted to the interests of students. This has been enabled in 13 of the 15 study programmes, i.e. in 87% of the programmes. In addition, the performance of the programme in part-time studies is flexibly adapted to the employed students in the form of teaching 50% of the schedule, a modular form of teaching and classes being held in the afternoon, after 4.30 PM.

Task 1.7: Adopt the Rule Book on Systematic Review and Monitoring of Study Programme Content Relevance before commencement of the academic year 2013/2014. Indicator 1.7: Rule Book on Systematic Review and Monitoring of Study Programme Content Relevance is adopted before commencement of the academic year 2013/2014.

The Rule Book on Systematic Review and Monitoring of Study Programme Content Relevance of the Polytechnic of Rijeka was adopted on 3rd March 2014 (Class: 003-05/14-01/04, File no.: 2170-57-01-14-2)

Quality

Task 1.8: Strive to establish a student – academic staff ratio of 15:1. Indicator 1.8: The student – academic staff ratio at the Polytechnic of Rijeka.

Number of Part-time Acad. year Full time Part-time academic Ratio Total *0.5 staff 2013/2014 58 1,422 1,647 823.5 2,246 38.7 2016/2017 1,009 1,143 571.5 1,581 62 25.5 2018/2019 889 907 62 (57*) 453.5 1,343 21.7

Table 2.: The student – academic staff ratio

*At the time of writing the report, the number of full-time teachers and associates has been temporarily reduced due to retirement or termination of employment contracts. The application, i.e. the procedure for obtaining approval for the announcement of vacancies in order to fill these job positions is in progress.

Table 2 shows that in recent years, a very good ratio of teachers and students has been established at the Polytechnic of Rijeka, significantly more favourable than the required minimum of 1:30. In this context, it should be emphasized that due to the orientation towards professional work, a large number of experts from practice, selected to teaching positions, are participating in teaching, but they have not been included in the above ratio, which is therefore even more favourable in this regard.

Task 1.9: Maintain the share of teaching hours performed by teachers and associates working under an employment contract with the Polytechnic at a level of at least 75% of the total number of teaching hours.

Indicator 1.9: Share of teaching hours performed by teachers and associates working under an employment contract with the Polytechnic in the total number of teaching hours.

Table 3.: Share of the number	er of teaching	hours performed	by teachers and	associates
-------------------------------	----------------	-----------------	-----------------	------------

Academic	Share of the number of teaching hours (%)					
year	Employees	Associate faculty members				
2013/2014	76.5	23.5				
2016/2017	81	19				
2018/2019	80	20				

The share of teaching hours performed by teachers and associates working under employment contract with the Polytechnic in the total number of teaching hours has not only been maintained at the required level, but it was further increased in the observed period.

Quality Assurance System

Task 1.10: Perform internal evaluation of the QAS at the Polytechnic of Rijeka every year. Indicator 1.10a: Commission Report on the Performed Internal QAS Evaluation prepared by the end of March of every year.

Indicator 1.10b: Final Report on the Performed Internal QAS Evaluation prepared and published by the end of September of each year.

In accordance with the Rule Book on Internal Periodical Evaluation of the Quality Assurance System, the evaluations of the internal quality assurance system were performed in two-year cycles. A total of two procedures were completed (final report of September 2015 and September 2017), and in May 2018, the third cycle of internal evaluation began. The objectives of the cycles carried out were to describe the quality

assurance model of the Polytechnic of Rijeka, to analyse and evaluate the current state of affairs, to evaluate the level of the system and its efficiency, and to propose further improvements that will serve the administration to take the necessary measures. The cycle initiated in 2018 has been changed in such a way that the requirements of the ESG standard and the ISO 9001:2015 standard have been integrated into the evaluation cycle itself. All the activities carried out were aimed at continuous improvement of the polytechnic processes, and the progress of the QAS in formal and substantive aspect is evident.

Task 1.11: Prepare documents for the execution of the external periodic evaluation of the QAS at the Polytechnic of Rijeka, in line with the plan of the Agency for Science and Higher Education.

Indicator 1.11a: Documents for the execution of the external periodic evaluation of the QAS at the Polytechnic of Rijeka prepared in due time.

Indicator 1.11b: Activities related to the Commission Report for external periodic evaluation of the Polytechnic's QAS performed in due time.

During the analysed strategic period, no external periodic evaluation process in accordance with the ESG requirements was conducted. In May 2016, the certification process according to the ISO 22301:2012 standard (Business Continuity Management) was successfully implemented, and during September 2016, the certification process of the Polytechnic of Rijeka according to the ISO 9001:2015 standard was successfully implemented. In order to meet the above standards, targeted improvements have been implemented in accordance with the requirements of the listed standards. In September 2017 and 2018, regular external supervisory audits were conducted; they were carried out by the Bureau Veritas certification company, and the procedures of internal audit and the application of the ISO 9001:2015 standard to the polytechnic processes were very positively evaluated.

Task 1.12: Carrying out preparations for reaccreditation of the Polytechnic of Rijeka in line with the plan of the Agency for Science and Higher Education.

Indicator 1.12: Reaccreditation of the Polytechnic of Rijeka put into effect in line with the plan of the Agency for Science and Higher Education.

According to the annual plan of reaccreditation of higher education institutions, the process of reaccreditation of the Polytechnic of Rijeka was conducted in the academic year 2013/2014. Following the reaccreditation process, the removal of the identified deficiencies was actively pursued, as well as the preparation of an Action Plan based on the analysis of the recommendations of the Expert Panel in the reaccreditation. Planned activities from the Action Plan and their measurable results have been regularly monitored. Preparations for a new reaccreditation cycle expected in the academic year 2019/2020 are underway.

Efficiency

Task 1.13: Increase the number of obtained ECTS credits during the first year of studies and reach an average level of at least 66% of the sum of intended ECTS credits.

Indicator 1.13: Ratio of obtained ECTS credits to the total possible number of credits during the first year of studies.

705 students were enrolled in the academic year 2017/2018, which amounts to 42,300 possible ECTS credits. The enrolled students obtained 25,537 ECTS credits, or 60.37% on average. However, if only the first enrolment is taken into account, then the goal has been reached because the 620 students that enrolled for the first time obtained 24,519 out of 37,200 possible ECTS credits (66%).

Task 1.14: Increase the number of students who complete their degree within the foreseen period to 40%, and achieve that 70% of enrolled students complete their degree.

Indicator 1.14a: Percentage of students by generation who completed their degree within the foreseen period.

Indicator 1.14b: Average duration of studies at the Polytechnic of Rijeka.

If the data presented in Tables 4 and 5 are analysed, it can be concluded that the task has been successfully achieved. It is justified to take into account the students who enrolled but also studied, i.e., exclude students who enrolled and dropped out. However, it must be borne in mind that the achievement of the planned percentages has been significantly influenced by the performance of students in graduate studies, which can objectively be considered expected. The achieved percentages of completion of studies, i.e. completion of studies within the foreseen period for undergraduate studies, are not completely satisfactory, although progress is noticeable here and the average duration of studies has decreased by almost six months.

Table 4.: Percentage of graduates

	Number of students		within the n period	Graduated within the prescribed duration		
	enrolled in 2012/2013*	3 + 1 year	2 + 1 year	6 years	4 years	
Professional undergraduate study	779	242 (31.1%)	/	351 (45.1%)	/	
Specialist professional graduate study	233	/	142 (61%)	/	171 (73.4%)	
Total	1,012	384 (37.94%)		522 (51.58		
Total without drop-outs**	719	38 (53.		522 (72.6		

^{*}In regard to the maximum possible deadline for the completion of studies of 6 years (twice the duration of the programme), the generation enrolled in the academic year 2012/2013 was taken into account as the base generation.

Table 5.: Average duration of studies at the Polytechnic of Rijeka

	2013/2014	2014/2015	2015/2016	2016/2017	2017/2018
PUS	4y 6m 2d	4y 10m	4y 4m 29d	4y 1m 2d	4y 1m 27d
SPGS	2y 4m 26d	2y 4m 18d	2y 4m 26d	2y 5m 23d	2y 5m 23d

PUS - Professional undergraduate study

SPGS - Specialist professional graduate study

Openness

Task 1.15: Increase the number of students of the Polytechnic of Rijeka outside its catchment area to 25%.

Indicator 1.15: The percentage of students of the Polytechnic of Rijeka coming from counties other than the County of Primorje and Gorski Kotar, the County of Istria and the County of Lika and Senj, to which the Polytechnic is primarily directed.

Since the percentage of students coming from counties other than the County of Primorje and Gorski Kotar, the County of Istria and the County of Lika and Senj has significantly exceeded the planned one-quarter, and it even approached one-third in the observed period, this task was very successfully achieved (Table 6).

^{**}Of the total number of students enrolled in the acad. year 2012/2013 in the undergraduate and specialist professional graduate studies, 293 students have dropped out (PUS - 258, SPGS - 35).

Table 6.: The percentage of students coming from counties other than the County of Primorje and Gorski Kotar, the County of Istria and the County of Lika and Senj

	20	13	20:	14	20	15	20	016	20	17	20)18	Aver	age
	nu		nu		nu		nu		nu		nu		nu	
	mb		mb		mb		mb		mb		mb		mb	
	er	%	er	%	er	%	er	%	er	%	er	%	er	%
PRIMORJE- GORSKI KOTAR	470	50.2	373	50.5	259	46.5	328	46.5	292	46.5	277	47.9	333.2	48.3
ISTRIA	156	16.7	132	17.9	106	19.0	130	18.4	133	21.2	112	19.4	128.2	18.6
LIKA-SENJ	39	4.2	29	3.9	22	3.9	28	4.0	28	4.5	24	4.2	28.3	4.1
Total (1 - 3)	665	71.0	534	72.3	387	69.5	486	68.9	453	72.1	413	71.5	489.7	70.9
CITY OF ZAGREB	21	2.2	19	2.6	13	2.3	18	2.6	3	0.5	6	1.0	13.3	1.9
ZAGREB COUNTY	14	1.5	13	1.8	10	1.8	11	1.6	7	1.1	8	1.4	10.5	1.5
DUBROVNIK- NERETVA	3	0.3	1	0.1	4	0.7	6	0.9	1	0.2	2	0.3	2.8	0.4
SPLIT- DALMATIA	8	0.9	1	0.1	5	0.9	8	1.1	4	0.6	4	0.7	5.0	0.7
ŠIBENIK-KNIN	1	0.1	4	0.5	2	0.4	3	0.4	3	0.5	4	0.7	2.8	0.4
ZADAR	24	2.6	13	1.8	15	2.7	21	3.0	17	2.7	18	3.1	18.0	2.6
OSIJEK- BARANJA	13	1.4	7	0.9	8	1.4	5	0.7	5	0.8	8	1.4	7.7	1.1
VUKOVAR- SRIJEM	13	1.4	7	0.9	7	1.3	9	1.3	11	1.8	7	1.2	9.0	1.3
VIROVITICA- PODRAVINA	8	0.9	4	0.5	2	0.4	8	1.1	4	0.6	6	1.0	5.3	0.8
POŽEGA- SLAVONIA	18	1.9	11	1.5	4	0.7	10	1.4	6	1.0	11	1.9	10.0	1.4
BROD- POSAVINA	19	2.0	11	1.5	14	2.5	19	2.7	13	2.1	14	2.4	15.0	2.2
MEÐIMURJE	6	0.6	5	0.7	9	1.6	4	0.6	6	1.0	11	1.9	6.8	1.0
VARAŽDIN	13	1.4	14	1.9	11	2.0	23	3.3	17	2.7	11	1.9	14.8	2.1
BJELOVAR- BILOGORA	17	1.8	16	2.2	12	2.2	12	1.7	9	1.4	7	1.2	12.2	1.8
SISAK- MOSLAVINA	9	1.0	15	2.0	18	3.2	14	2.0	15	2.4	16	2.8	14.5	2.1
KARLOVAC	62	6.6	48	6.5	17	3.1	30	4.3	29	4.6	20	3.5	34.3	5.0
KOPRIVNICA- KRIŽEVCI	12	1.3	9	1.2	8	1.4	16	2.3	15	2.4	7	1.2	11.2	1.6
KRAPINA- ZAGORJE	9	1.0	7	0.9	8	1.4	1	0.1	10	1.6	3	0.5	6.3	0.9
BOSNIA AND HERZEGOVINA	1	0.1	0	0.0	3	0.5	1	0.1	0	0.0	2	0.3	1.2	0.2
Total - other counties and nationals	271	29.0	205	27.7	170	30.5	219	31.1	175	27.9	165	28.5	201	29.1
Total	936	100	739	100	557	100	705	100	628	100	578	100	691	100
lotai	330	100	, 3,	100	<i></i>	100	,03	100	020	100	370	100	031	100

Task 1.16: Establish at the Polytechnic of Rijeka at least one education programme where at least one semester will be held in one of the world's most widely used languages. Indicator 1.16: Number of education programmes/semesters of the Polytechnic of Rijeka held in one of the world's most widely used languages.

The above task has not yet been fulfilled, however, the EU project "Development of an international educational programme 'Veleri-OI IoT School" is currently being implemented, for which a grant in the amount of HRK 1,769,698.00 has been provided. The project encompasses the development of a new international educational programme in the area of "Internet of Things" (IoT) that would be conducted in English, and the implementation of a pilot project for the education of the first generation of students. Considering the planned three-year project duration, the education of the first-generation of students is expected within the originally planned duration of the Strategy of the Polytechnic.

Curriculum reform based on learning outcomes

Task 1.17: Structure all study programmes at the Polytechnic of Rijeka in such a manner that at least 20% of learning outcomes in the study programme will develop general competencies.

Indicator 1.17: Average percentage of learning outcomes which develop general competencies in the study programmes of the Polytechnic of Rijeka.

Task 1.18: Prepare and publish learning outcomes on programme level, in line with learning outcomes on course level and competencies for all programmes by the end of November 2013.

Indicator 1.18: Number of programmes with prepared and published reconciled learning outcomes on programme level, for all programmes by the end of November 2013.

Learning outcomes on the programme level were created and published on the Polytechnic's website in 2013.

In the academic year 2017/2018, the process of revisement of the learning outcomes at the programme level for all study programmes of the Polytechnic of Rijeka has been initiated. The process continued with a revision of the learning outcomes at the course level. The outcomes were revised according to the Croatian Qualifications Framework (CROQF) methodology, based on existing study programmes. In view of the above, on average, 17% of the learning outcomes at the study programme level develop generic competences, which generally relate to teamwork, use of foreign language, application of mathematical and statistical methods, presentation skills, etc.

Flexible ways of learning and lifelong education

Task 1.19: A total of at least 300 ECTS credits for students and participants awarded through lifelong learning programmes.

Indicator 1.19: The sum of ECTS credits awarded through lifelong learning programmes.

The goal set in this task has been significantly exceeded due to the large number of students who have acquired qualifications to continue their education in accordance with the 3+2 model through bridging programmes.

Table 7.: The number of ECTS credits awarded through lifelong learning programmes

Academic year	ECTS credits
2013/2014	639
2014/2015	316
2015/2016	115
2016/2017	78
2017/2018	182
Total	1,330

Enhancing cooperation with the economy and public sectors

Task 1.20: On the level of the Institution, intensify cooperation with former students of the Polytechnic (Alumni), and intensify institutional partnership contracts with enterprises and public institutions in the planning, establishing and conducting study programmes. Indicator 1.20a: Alumni Club of the Polytechnic of Rijeka established by the end of June 2013.

Indicator 1.20b: Number of institutional contracts of the Polytechnic on partnerships with enterprises and public institutions.

Indicator 1.20c: Number of former students of the Polytechnic actively involved in institutional partnerships with the Polytechnic.

The Association of Graduate Students of the Polytechnic of Rijeka "ALUMNI VELERI" has been entered in the Register of Associations of the Republic of Croatia on the basis of the decision of the Office of State Administration of the Primorje-Gorski Kotar County, Department for General Administration, under ref.: Class: UP/1230-02/12-01/127, File no.: 270-06-02/1-12-2. The registration was made on 19th November 2012 under the registration number of the association 08003720, and on that day the association acquired the status of a legal entity.

The Polytechnic has institutional partnership agreements with about seventy companies and public institutions. Cooperation with companies and public institutions is in the focus of interest and its formalization is continuously carried out. For example, during 2018, agreements were concluded with the following institutions: Dječji vrtići Rijeka, Bina Istra održavanje i upravljanje d. o. o., British American Tobacco Adria (BAT Adria), Infobip, Energo d. o. o., TRI M d. o. o., Faculty of Transport and Traffic Sciences Zagreb and others. The former students are very actively involved in institutional partnerships with the Polytechnic, either as initiators of establishing partnerships or through the implementation of activities based on concluded agreements.

Students' standard

Task 1.21: Encourage the engagement of students of the Polytechnic of Rijeka in organized extracurricular activities: cultural, sports and humanitarian.

Indicator 1.21: Percentage of students of the Polytechnic of Rijeka engaged in organized extracurricular activities.

A significant number of students participate in organized extracurricular activities at the Polytechnic of Rijeka, so, for example, in the last academic year, students participated in the following activities:

- Sports competitions (Turizmijada Budva), UniSport league (local and national championships) and the Sports Day of the Polytechnic about 210 students;
- Humanitarian activities (voluntary blood donation, collecting food for social supermarkets, etc.) about 100 students;
- Cultural and educational trips (visiting Interliber, American Corner, etc.) about 110 students.

In addition, students are also active in other smaller, unmentioned activities and in the work of student associations at the Polytechnic, therefore the total percentage of students that participate in extracurricular activities amounts to 25-30% of the total number of students.

e-Learning

Task 1.22: Use e-Learning tools in a minimum of 75% of each study programme of the Polytechnic of Rijeka.

Indicator 1.22: Average share of study programmes of the Polytechnic of Rijeka where e-Learning tools are used.

Currently, at the Polytechnic, basic ICT tools are being used as e-Learning tools through the "course materials" module located on the Polytechnic's website within each course, as well as the Moodle/Merlin system used to perform a mixed (hybrid) e-Learning

format. The use of these forms of e-Learning has increased every year, and out of about 53% of courses that had course material published at the beginning of the period, the share of the courses with published content on the "course materials" module has increased to about 60%. About 30% of all courses held at the Polytechnic are active in the Moodle system. In order to further intensify the use of e-Learning opportunities, workshops such as "Using Google Drive", "Open Educational Content" have been held for teachers and a Decision on on-line teaching regulating this issue has been adopted.

Task: 1.23: Adopt the e-Learning Implementation Strategy of the Polytechnic of Rijeka by the end of 2013.

Indicator 1.23: e-Learning Strategy of the Polytechnic of Rijeka is adopted.

The "e-Learning Implementation Strategy of the Polytechnic of Rijeka for the period from 2014 to 2018" has been adopted (Class: 003-11/14-01/03, File no.: 2170-57-01-14-1 of 10th May 2014;

https://www.veleri.hr/files/datoteke/pravilnici_odluke/Strategija_uvodjenja_eUcenja_VeleRi.pdf

The final report on the said Strategy is being drafted and a "new" Strategy for the next period is being created.

PROFESSIONAL AND SCIENTIFIC WORK

Strategic Goal 2: The Polytechnic of Rijeka is developing a research profile in the area of professional and scientific activities in the field of technical, social and biotechnical sciences; the Polytechnic has also been recognized for supporting its teachers' research careers.

Research quality

Task 2.1: Increase the number of professional and scientific papers by 50% by the year 2020.

Indicator 2.1a: Number of professional and scientific papers published by teachers of the Polytechnic of Rijeka.

Indicator 2.1a: Number of papers published by teachers of the Polytechnic of Rijeka in the CC and SCI international publications.

According to the available data, it is evident that the number of published papers in publications represented in CC and SCI databases increased by about 40% compared to 2013.

In addition to scientific, teachers also published professional papers, so the total number of published professional and scientific papers increased by about 41% compared to 2013.

Systematic care for research careers development

Task 2.2: Increase the number of teachers and associates holding the Ph.D. degree.

Indicator 2.2: Number of teachers and associates holding the Ph.D. degree.

Task 2.3: Increase the number of teachers appointed to research positions by 50% by the year 2020.

Indicator 2.3: Number of teachers appointed to research positions.

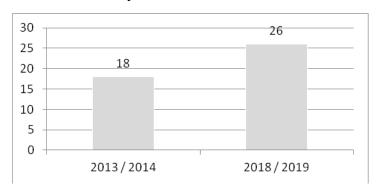


Table 8.: Number of teachers and associates with a Ph.D.

Table 9.: Number of teachers appointed to research positions

Academic year	Research associate	Senior research associate	Scientific adviser
2013/2014	3	0	2
2018/2019	10	1	1

The increases shown in Tables 8 and 9 undoubtedly confirm the fulfilment of these tasks, i.e. prove the systematic care for research careers of the employees of the Polytechnic of Rijeka.

Task 2.4: Meet the conditions and obtain entry of the Polytechnic of Rijeka into the Register of Scientific Institutions in at least one scientific field by the end of 2018.

Indicator 2.4: Entry into the Register of Scientific Institutions completed by the end of 2018 for at least one scientific field.

The task could not be fulfilled because the Polytechnic was in the process of subsequent monitoring by the Agency for Science and Higher Education in terms of scientific

activity. Despite the issuance of a <u>one-year</u> provisional permit for scientific activity in 2006 and repeated statements by the Polytechnic about not having a permit to perform this activity, the Polytechnic has not been erased from the Register of Scientific Organizations. Therefore, the procedure for obtaining a permit could not be initiated in the areas where the Polytechnic currently has the necessary human resources. The draft of the Scientific Research Strategy for the following period has been prepared.

The promotion of research and professional work, and thus the achievement of this strategic goal, was significantly influenced by the launch of the Journal of the Polytechnic of Rijeka, a peer-reviewed journal that contains papers relevant to the scientific and professional public in the fields of science within which the Polytechnic of Rijeka conducts its educational, research and development activities. In this way, teachers were provided with the opportunity to publish papers, and since the Journal was recognized by the community as a journal in which high quality papers are published, potential authors are forced to pay attention to the quality of their own papers they submit for publication. The fact that the papers, in order to prevent plagiarism, are tested by the Crossref Similarity Check (iThenticate) tool, and that all the works pass double-blind review, which guarantees objectivity in the evaluation, certainly contributes to the quality. However, the fact that the Journal of the Polytechnic of Rijeka has been indexed in the Emerging Sources Citation Index (ESCI) - Web of Science Core Collection, which further contributed to the quality of the papers, affecting the increasing number of submissions by external authors, which also encourages our teachers to improve their own scientific and professional work, should be especially emphasized. The papers published in journals included in the WoSCC (Web of Science Core Collection) databases are classified as category A scientific papers in the field of technical sciences, i.e., group one (a1) scientific papers in the field of biotechnical and social sciences, which is crucial for appointment to research positions.

RESOURCES — HUMAN, MATERIAL AND FINANCIAL RESOURCES

Strategic Goal 3: The Polytechnic of Rijeka is a higher education institution marked by a high level of organization and responsibility, giving expression to each individual's talent and capacity (of teachers, assistants, administrative staff and students), aiming thus to let the Polytechnic of Rijeka compete, on equal terms, on the European higher education scene.

Professional advancement system

Task 3.1: Increase the number of assistants and junior researchers employed by the Polytechnic of Rijeka to 50% by the year 2020.

Indicator 3.1 Share of assistants and junior researchers employed by the Polytechnic of Rijeka in relation to the total number of teaching associates.

Due to the change in the policy of employment and promotion to higher professional ranks of the Ministry of Science and Education, i.e. the need to retain the same amount of the salaries (wage bill) at the institution level (Ministry of Science and Education — Employment Plan for Public Polytechnics and Colleges, Class: 602-04/14-04/00307, File no.: 533-20-14-0001), despite the implementation of the Polytechnic's Decision to hire three assistants to be paid from its own resources, the task could not have been fulfilled.

Task 3.2: Strive to reduce the staff's average age in order to ensure continuity and quality. Indicator 3.2 Average age of teachers holding teaching positions who are employed by the Polytechnic of Rijeka.

Table 10.: Average age of teachers holding teaching positions at the Polytechnic of Rijeka

Academic year	Lecturer	Senior lecturer	Principal lecturer
2013 / 2014	40	49	54
2018 / 2019	43	48	54

Since it was not possible to "obtain" the planned new developmental places for promotion to higher rank in the observed period, regardless of the fulfilment of conditions for it, the multi-year limited planned rejuvenation of the teaching staff has not been realized. On the other hand, taking into account the above circumstances and the same number of employed teachers, keeping the average age in similar frames shows the systemic care and required continuity as a prerequisite for maintaining the existing quality of teaching and other processes.

Task 3.3: Increase the share of teachers appointed to the teaching positions of senior lecturer or principal lecturer who are employed by the Polytechnic of Rijeka.

Indicator 3.3: Share of teachers appointed to the teaching positions of senior lecturer or principal lecturer.

Table 11.: Share of teachers appointed to the teaching positions of senior lecturer or principal lecturer in the total number of full-time teachers and associates

	Academic year		
	2013/2014	2018/2019	
Total number of full-time teachers and associates	58	57	
Number of senior lecturers	20	28	
Share of senior lecturers in the total number of			
employees	34.5%	49.1%	
Number of principal lecturers	10	9	
Share of principal lecturers in the total number			
of employees	17.2%	15.8%	
Total senior and principal lecturers	30	37	
Share of senior and principal lecturers in the total			
number of employees	51.7%	64.9%	

Table 11 shows, despite the aforementioned restrictions on advancement, the successful realization of this task, as the share of senior and principal lecturers has increased from 51.7% to 64.9%.

Lifelong learning of non-teaching staff

Task 3.4: Include a minimum of 50% of non-teaching staff into lifelong learning in five-year cycles.

Indicator 3.4: Percentage of non-teaching staff of the Polytechnic of Rijeka included in lifelong learning.

Task 3.5: Encourage employees to enrol in studies of the Polytechnic of Rijeka by further implementation of the decision that employees of the Polytechnic are exempt from paying tuition fees.

Indicator 3.5: Number of employees enrolled in a study-as-you-work-course (i.e. part time study) at the Polytechnic of Rijeka.

The structure of non-teaching staff by academic grade, shown in Table 12, indicates that these tasks have been fulfilled. With the exception of the janitors/stokers and cleaners, all non-teaching staff has minimally an undergraduate degree. Furthermore, a Decision on the professional training of non-teaching staff (Class: 003-08/17-04/01, File no.: 2170-57-01-17-75) was adopted, which continually encourages, facilitates and finances the professional training of non-teaching staff, For example, during 2018, 10 employees participated in some form of training.

Table 12.: Structure of non-teaching staff by academic grade

Ph.D.	M.Sc.	University degree	Advanced (vocational-school) specialist's training	Secondary school degree	Unqualified
2	-	13	10	3	3

Human resources for carrying out programmes

Task 3.6: Expansion of the teaching base of the Polytechnic of Rijeka by further engagement of acknowledged experts from economic and public sectors, in order to conduct new programmes.

Indicator 3.6: Number of teachers and associates who are not employed by the Polytechnic of Rijeka.

The number of external associates involved in teaching at the Polytechnic of Rijeka, as representatives of the economy and the public sector, has not changed significantly in the previous period. Their share in the total number of teaching staff over the entire observed period amounts to about 50%. Table 13 also shows that their structure has changed with regard to their teaching position, which indicates, among other things, their advancement and increased quality of teaching.

It should be emphasized that the engagement of external associates has been realized in accordance with the needs, which have been reduced due to the decrease in the number of students, but also as guest lecturers, internship mentors, etc. For example, during 2018, 26 guest lecturers participated in teaching, 18 of which were from the economy.

Table 13.: Number of external associates according to positions

	Number of external associates according to positions 2013/2014 2017/2018					
Scientific-teaching positions	6	4				
Full time professor	2	1				
Associate professor	3	2				
Assistant professor	1	1				
Teaching positions	38	36				

	Number of external associates according to positions	
	2013/2014	2017/2018
Principal lecturer	10	10
Senior lecturer	5	10
Lecturer	23	16
Associates - assistants	6	8
<u>Total</u>	50	48

Task 3.7: Increase the number of teaching bases for the performance of student internships. Indicator 3.7: Number of teaching bases for the performance of student internships.

In the observed period, the number of teaching bases for the performance of internships was increased by 5 and now there are 45 bases in total. 30 family run farms have to be added to this number, which are covered by the concluded Agreement with the Centre for Agriculture and Rural Development of Primorje-Gorski Kotar County. Furthermore, a number of newly concluded Agreements on cooperation with economic entities regulate the student internships, but without the formal determination of the teaching base status.

Creating personal employee portfolio

Task 3.8: Adopt a Rule Book defining the contents of personal employee portfolios and create it before the end of 2014.

Indicator 3.8: Portfolio for each employee of the Polytechnic created by the end of 2014.

The task has been partially completed by completing the personnel files of the HR department with additional documentation (election to scientific positions, certificates, etc.).

Financial resources

Task 3.9: Reach a 50% share of own revenue in the total revenue of the Polytechnic of Rijeka.

Indicator 3.9: Share of own revenue in the total revenue of the Polytechnic of Rijeka.

Task 3.10: Ensure adequate level of available financial resources.

Indicator 3.10a: Available funds of the Polytechnic of Rijeka (excl. capital investment) Euro/teacher.

Indicator 3.10b: Available funds of the Polytechnic of Rijeka (excl. capital investment)

Table 14.: Share of own revenue (HRK)

Voor	Total	Own	% of own
Year	revenue	revenue	revenue
2017	20,708.423	8,935.673	43.15
2018	21,714.521	8,679.504	39.97

Table 15.: Available funds per teacher (HRK)

Year	Available funds	Number of teachers	Funds/teacher
2017	2,722,453	61	44,630
2018	2,749,979	57	48,245

Table 16.: Available funds per student (HRK)

Year	Available funds	Number of students	Funds/student
2017	2,722,453	2,152	1,265
2018	2,749,979	1,944	1,415

Changes in the conditions of operation of the Polytechnic, in particular the reduction of enrolment quotas and, consequently, the number of students, all in accordance with the Letter of Expectations of the Ministry of Science and Education, i.e. the Agency for Science and Higher Education, recent demographic trends, changes in the manner of financing, etc., have made it impossible to complete this task. In such circumstances, retaining the share of own income above 40% shows success. Successful business operations and financial adjustments to the new circumstances should be emphasized, as evidenced by the total revenue and available funds per student and teacher. Namely, it is evident that, despite the decrease in the number of enrolled students of about 1500 compared to 2013, the funds available per teacher and student have been retained at a very high level.

Task 3.11: Reach a maximum of 35% of non-teaching staff in the total number of employees at the Polytechnic.

Indicator 3.11: Share of non-teaching staff in the total number of employees at the Polytechnic.

Table 17 shows the successful realization of this task. Moreover, the share of non-teaching staff in the total number of employees has been further reduced.

Table 17.: Share of non-teaching staff in the total number of employees

Academic year	Total number of employees	Number of non- teaching staff	Share of non-teaching staff in the total number of employees (%)
2013 / 2014	90	32	35.6
2017 / 2018	90	29	32.2

Premises

Task 3.12: Ensure additional teachers' offices and classrooms at the Rijeka location.

Task 3.13: Resolve the issue of providing, on a long-term basis, premises required for studies in Poreč.

Task 3.14: Complete second phase of fitting up premises in the former barracks buildings in Pazin by the year 2018.

Given the large reduction in enrolment quotas based on the Letter of Expectations of the Ministry of Science and Education and the consequent reduction in the number of students, which currently amounts to 50% of the number of students enrolled at the time the Strategy was prepared, i.e. at the time these tasks were defined, it is necessary to reconsider their justification and effectiveness, especially given current trends of interest for individual studies. During the implementation of the strategy, investment in the premises continued in the form of the conversion and placement into operation of the existing premises. The second phase of fitting up premises in the former barracks buildings in Pazin has been completed.

Information-communication system

Task 3.15: Resolve the set-up of separate web pages for all courses and ensure that at least 75% of all courses in all studies have their own web pages by 30 September 2015.

Indicator 3.15: Number of web pages for courses set up by 30 September.

All courses have their own web page, which is located on the web site of the Polytechnic of Rijeka (www.veleri.hr). The page contains basic information about the course

(teacher, learning outcomes, course content). In addition, each course page has a module "course materials". The module allows teachers to publish course content related to a particular course, and published content is available to students by logging into the web site and selecting the desired course.

<u>Library system</u>

Task 3.16 Maintain available titles of professional literature, in line with those indicated in course syllabuses of all studies conducted at the Polytechnic of Rijeka.

Indicator 3.16: Percentage of available titles of literature in relation to the total number as required by all course syllabuses.

In the last five academic years, procurement has been especially thematically focused on extending the library stock in terms of more detailed equipment for the scientific fields and fields that cover the study programmes of the Polytechnic (the field of natural, technical, biotechnical, social and interdisciplinary sciences). The analysis applies to both purchased (including those in the Polytechnic's publication or co-publishing) and donated titles. Although indispensable in teaching and when writing seminars, titles that make up the library's reference collection, such as encyclopaedias, lexicons, manuals, spelling books, grammar books, etc., as well as the part of the stock relating to humanities, have not been included. The titles listed in the textbook group related to the courses' syllabuses include specific titles that are listed in the syllabuses (compulsory and supplementary literature), but also those that have been obtained at the recommendation of teachers, and serve as supplementary literature to smaller groups of students to use when writing seminar papers.

Table 18.: Number of newly acquired titles in the library stock

	Purchased/ own		
Period	publication	Donations	Total
From 1 Oct.	21		21
2013	21		21
2014	205	35	252
2015	97	99	219
2016	96	38	139
2017	66	27	110
To 30 Sep. 2018	196	114	316
Total	681	313	1057

Table 19.: Available titles of literature in relation to the number projected in course syllabuses

Department/study	Percentage
Entrepreneurship	95%
Information Science	85%
Transport	91%
Occupational Safety	91%
Telematics	87%
Sustainable	
Agritourism	95%
Agricultural	91%
Department	

LINK BETWEEN THE COMMUNITY AND ECONOMY, AND ADJUSTMENT TO THE NEEDS OF THE COMMUNITY

Strategic Goal 4: The Polytechnic of Rijeka is involved in the development of the economy and the community, and supports the transition to knowledge economy.

Research conducted for the needs of the economy and community

Task 4.1: Realize at least four research projects to be carried out jointly by the Polytechnic of Rijeka, the economy and the local community by the year 2020.

Indicator 4.1: Number of joint research projects of the Polytechnic of Rijeka, the economy and local community.

Task 4.2: Increase the number of highly professional studies and papers of the Polytechnic of Rijeka carried out for the needs of the economy and the local community.

Indicator 4.2: Number of realized highly professional studies and papers of the Polytechnic of Rijeka carried out for the needs of the economy and the local community.

Taking into account the focus of resources on the implementation of projects under the European Social Fund: "Development of the professional study Sustainable Agritourism through the Croatian Qualifications Framework" and "Adoption of the principles of the Croatian Qualifications Framework in professional study programmes of entrepreneurship", as well as the current "Development of an international educational programme Veleri OI IoT School", research projects with the economy and the local community have been realized to a

limited extent. Although essentially the projects mentioned above are realized in cooperation with the economy and the local community, the following realized projects are distinguished as partnerships: The biology and ecology of the American grapevine leafhopper (Scaphoideus titanus), which is the causative agent of the spread of Flavescence dorée on grapevine, Protection of olives from economic pests, Monitoring and suppression of the American grapevine leafhopper in Istrian vineyards, Introduction to the management of cover crops in vineyards, etc. On the other hand, one of the results of these projects are the final reports, i.e. studies (indicator 4.2), to which the study "Organization and operation programme of the Centre for Agriculture and Rural Development Stara Sušica" should be added.

Education for the needs of the community

Task 4.3: Encourage the development of extracurricular activities at the Polytechnic of Rijeka which will enable students to take advantage of experiential learning by volunteering.

Indicator 4.3: Number of extracurricular projects under the leadership of students of the Polytechnic of Rijeka who offer voluntary engagement in the community.

As a rule, volunteer engagements of students in the community refer to the organization of humanitarian and blood donation actions. Humanitarian actions are organized once or twice a year and are aimed at collecting supplies for the Social supermarket for the Children's Home "Ivana Brlić-Mažuranić" in Lovran. Blood donation actions are continuously organized twice a year. A project with Kindergartens Rijeka is being prepared, in whose realization the students from the Transport Department will participate. Furthermore, on the basis of the initiated cooperation within the activities of the course "Construction of multimedia systems", the conclusion of the Agreement with the Red Cross Society of Primorje-Gorski Kotar County is being finalized. The agreement will define the principles of long-term cooperation on joint projects under the activities of these two institutions, through work with especially young people and volunteers.

INTEGRATION INTO THE EUROPEAN UNION, OPENNESS AND MOBILITY

Strategic Goal 5: The Polytechnic of Rijeka is actively participating in the European Higher Education Area (EHEA) and the European Research Area (ERA), promoting, in a systematic and organized manner, the internal and external mobility of its teachers and students.

Entering the EHEA

Task 5.1: Promote at the Polytechnic of Rijeka the establishment of joint professional studies with foreign higher education institutions.

Indicator 5.1: Number and structure of joint professional studies at the Polytechnic of Rijeka.

Task 5.2: By the end of 2013, develop at the Polytechnic of Rijeka instruments for using programmes for mobility and cooperation with the European Union, via the National Agency for Mobility and EU Programmes.

Indicator 5.2a: Instruments of the Polytechnic of Rijeka for using programmes of the National Agency for Mobility and EU Programmes developed by the end of 2013.

Indicator 5.2b: Number of students who have participated in the exchange scheme within the framework of outgoing/incoming mobility.

Indicator 5.2c: Number of teachers who have participated in the exchange scheme within the framework of outgoing/incoming mobility.

Indicator 5.2d: Number of non-teaching staff who have participated in the exchange scheme within the framework of outgoing/incoming mobility.

Entering the ERA

Task 5.3: By the end of 2014, put in place instruments of the Polytechnic of Rijeka for registration and management of projects and programmes of EU structural funds.

Indicator 5.3: Instruments of the Polytechnic of Rijeka for participation in European programmes put in place by the end of 2014.

Indicator 5.4: Number of researchers of the Polytechnic of Rijeka who stayed in institutions abroad in the course of the year.

In the academic year 2013/2014, the Polytechnic of Rijeka seized the opportunities of European mobility programmes and realized a total of 12 outgoing and incoming student (8) and staff (4) mobilities. In the years that followed, it continued to develop and implement mechanisms to use mobility programmes. For the period 2014 to 2020, the Erasmus Charter for the new programming period (Erasmus+ program) was signed. Since then, the Polytechnic of Rijeka has been applying to and actively using programmes under Key Action 1 - Individual Mobility for Learning every year, primarily KA103 student and staff mobility programmes

within programme countries. Since 2017, we have been part of the KA107 mobility programmes between programme and partner countries (BiH). During the analysed strategic period, a continuous growth of activities with the aim of organized and systematic encouragement of student and staff mobility has been evident at the Polytechnic of Rijeka.

During 2017, the Polytechnic of Rijeka started activities to join the CEEPUS network (Central European Exchange Programme - Regional Academic Mobility Program), and the Polytechnic is a partner in 6 active CEEPUS networks. During 2018/2019, the first 9 incoming and 1 outgoing teacher mobilities within this programme were realized.

Table 20 shows the number of students per academic year who participated in the international exchange. In the observed period, a total of 31 students from the Polytechnic of Rijeka used some type of mobility (for the purpose of study or internship), and 20 foreign students attended the Polytechnic of Rijeka for the purpose of study. Current indicators (academic year 2018/2019) indicate a very positive trend in the current academic year (a total of 13 outgoing and 11 incoming student mobilities have been contracted).

Table 20.: Number of students who have participated in the exchange scheme within the framework of outgoing/incoming mobility

	Number of students at		
	international exchange		
Acad. year	Outgoing	Incoming	
	students	students	
2013/2014	7	1	
2014/2015	11	2	
2015/2016	1	12	
2016/2017	7	3	
2017/2018	5	2	

According to the indicators listed in Table 21, there is a positive trend of international activity in the framework of incoming/outgoing staff mobility (a total of 23 outgoing and 28 incoming mobilities has been realized). The mobility of non-teaching staff is much less represented than the mobility of teachers, and in this regard, continuous work is being done to encourage mobility. Current indicators (academic year 2018/2019) indicate a very positive trend in the current academic year (a total of 10 outgoing (of which 3 of non-teaching staff) and 13 incoming staff mobilities have been realized). The purpose of the realized mobility was either in the function of teaching or in the function of training. Exclusive research mobility has not been realized because it has not even been foreseen by current projects, but staying at foreign institutions certainly contributes to the development of research competences, i.e. developing contacts in terms of future joint research engagements.

It can be concluded that the Polytechnic of Rijeka has, in the observed period, continuously implemented and developed the available mobility programmes, and such a trend should be maintained in the future strategic period.

Table 21.: International activity of employees in the observed period

	Staff that left for international exchange	
Acad. year	Outgoing teaching (non-teaching) staff	Incoming teaching (non-teaching) staff
2013/2014	0	4
2014/2015	3	11 (3)
2015/2016	4	2
2016/2017	7 (1)	3
2017/2018	8	4 (1)

Preparing citizens to live in the EU

Task 5.5: Prepare lifelong learning programmes to educate citizens for life in the European Union.

Indicator 5.5: Number of prepared and implemented programmes providing education for the citizens' life in the European Union.

During 2018, a lifelong learning programme called "ICT-supported SME Business Operations Training Program" was developed, which has been classified into the education sector of economics, trade and administration with the level of complexity 2. After the professional and andragogical evaluation of the programme, the Agency for Vocational Education and Training and Adult Education issued a positive opinion, on the basis of which the Ministry of Science and Education approved its implementation with the right to be entered into the (e)employment booklet. The training programme consists of 7 units that are taught during 170 classes (40 hours of lectures + 130 hours of exercises). The attendant who successfully completes the final knowledge test is issued a Certificate of Training for ICT-supported SMEs Business Operations.

In addition to the above, lifelong education programmes are implemented within the framework of accredited study programmes, whereby students acquire the missing competencies for employment or acquire the necessary additional knowledge related to their employment.

CONCLUSIONS AND RECOMMENDATIONS

The Strategy of the Polytechnic for the period from 2013 to 2020 defined five areas of activity in which the planned development was expressed through five specific strategic goals, which included 56 tasks with performance indicators.

In the observed period, most tasks were successfully completed, while only a small number of them was partially completed. It should be noted that a revision of the strategy i.e. some of its tasks was carried out in order to adapt to the changed circumstances and requirements. The realization of the Strategy was significantly influenced by the reduction in the number of students caused by the reduction of enrolment quotas in accordance with the Letter of Expectations in the reaccreditation process, which was later built on by the decrease in the number of potential candidates (high school graduates) at the level of the Republic of Croatia. Adding the restriction on new hiring imposed by the competent ministry to the above, the realization of the elements of further growth in terms of new programmes, new work premises, increase of own revenues, etc., was made difficult. On the other hand, the realized goals and tasks prove that the quality of the overall system, activities and business operations of the Polytechnic of Rijeka has significantly increased in the observed period, guaranteeing the realization of the mission and vision of the institution.

During the implementation and analysis of the Strategy realization, possible improvements were identified, which should be an integral part of the future strategy document. Furthermore, it is necessary to integrate the existing strategies of certain segments of the Polytechnic's activities, such as the Quality Assurance Strategy, the E-Learning Development Strategy, etc., into the future strategy document. Particular attention should be paid to the implementation of the conclusions of careful consideration and analysis of objective circumstances, i.e., changes in the external environment and conditions of operation, which have conditioned the need to prepare a new Development Strategy of the Polytechnic of Rijeka.