

SWOT ANALYSIS OF THE POLYTECHNIC OF RIJEKA

STRENGTHS

The Polytechnic of Rijeka (hereinafter referred to as the Polytechnic) is a higher education institution where professional studies from the field of technical, biotechnical and social sciences are carried out, and this diversity is precisely where our strength lies. A part of the study programmes has been recognized at the level of the Republic of Croatia as unique: professional undergraduate studies of Telematics and Sustainable Agritourism and specialist professional graduate study of Transport. Similar applies to the undergraduate and specialist professional graduate study of Occupational Safety, the professional undergraduate study of Mediterranean Agriculture, and the undergraduate and specialist professional graduate study of Winemaking, because there are very few equal or similar study programmes.

The variety of study programmes, most of which are from the STEM field, has also resulted in qualified own teachers from various professional and scientific fields, and their involvement in professional associations. In addition, a significant number of practitioners are involved in our teaching processes (in the role of teachers - external associates who hold regular classes, but also participate in the work of some committees or as guest lecturers for certain professional topics). Since the workload of our students also includes a high proportion of professional student practice, all of the above affects the quality of professional competences acquired during their studies at the Polytechnic.

Recently, there has been a growing number of foreign professors who come to our institution through mobility programmes to give lectures from the fields in which they are experts.

At the institution level, significant investments are made in the professional development of teachers (annual funding for the publication of papers, attending conferences, professional development, participation in the costs of doctoral studies, etc.) and the development of andragogical competencies (workshops in the field of methodological-didactic skills, use of ICT technology in education etc.). Non-teaching staff also have the opportunity of professional development. The international mobility of all employees, which has been steadily increasing in recent years, is being encouraged.

In addition to teachers, the Polytechnic continuously invests in the equipment available to students; the laboratories are being renovated and new computer equipment and computer programmes are procured; care is taken to organize classes and adapt support processes to student needs, especially to part-time students and students with disabilities (library, student administration office, legal support, information on mobility opportunities, etc.). In addition, student organizations at the Polytechnic are extremely active and are provided with professional, organizational and financial support.

The above strengths are probably an important factor in the very high student satisfaction with classes (student survey results) and studying at the Polytechnic of Rijeka (graduates survey results). We also develop a partnership with students; they are involved in all

polytechnic bodies and decision-making processes, and their suggestions and opinions are particularly important to us and form the basis for further actions.

In general, at the institutional level, we can emphasize a large number of cooperation agreements with business entities (more than 60), a large number of bilateral agreements with foreign higher education institutions (about 40), active cooperation with the Primorje-Gorski Kotar County; the focus of the management on the development of a quality culture and quality certificates that confirm the engagement of the Polytechnic on continuous improvement; own publishing activity and the Journal of the Polytechnic indexed in recognized journal databases; significant engagement of our teachers and students in socially responsible activities; lifelong learning programme certified by the competent ministry (as part of the development of additional activities of the Polytechnic), experience gained through completed projects, etc.

WEAKNESSES

Although the Polytechnic of Rijeka has qualified employees, rapid changes in the environment impose the need for continuous additional training of teachers in various fields. It is necessary to further intensify such trainings and to expand the fields in relation to which they are conducted. In addition, it is difficult to find new employees (primarily teachers) from the STEM field (which is related to the current state of the labour market). We also encounter difficulties in recruiting external associates because experts of such profiles are already significantly engaged in the private sector or leave to work abroad. In addition, the salaries of employees in state higher education institutions are defined by law (and far below market salaries), and opportunities for motivational rewards are limited. This also influences the resistance (unmotivation) of a part of employees to changes and adjustments to the *market orientation* of the Polytechnic, which is necessary for us to be recognized and survive in today's highly competitive conditions and financing manners, as well as regulatory requirements in the field of higher education. Although we try to fully inform the employees about each change, to provide them with additional training if necessary, and to facilitate the acceptance and implementation of changes in all available ways, a part of employees has a desire to maintain the status quo, which slows down the process. All of the above occasionally results in a lack of motivation of a part of the employees to engage in additional activities that could contribute to the institution in various ways.

Most of the study programmes of the Polytechnic have differentiated themselves and become recognizable in the market, but part of the study programmes is very similar to the programmes from the region, and it is necessary to work on their recognition. The complete revision of such study programmes and their accreditation could contribute to their attractiveness. The dynamics of complete revisions are not satisfactory and need to be accelerated (although the processes have begun and the initial part of the work has already been completed). In addition, there are unused capacities for inter-institutional cooperation at national and international levels (despite the large number of bilateral agreements) that could contribute to an even better-quality development of our curricula. This is further compounded by the problem of the downward trend in the number of enrolled students, which is expected in future enrolment periods. Although this has not yet reflected on the

financial situation of the Polytechnic, if this trend continues in the future, it will certainly be visible in the possibilities of investing in various aspects of the Polytechnic's development. The Management Board is focused on quality and recognizable study programmes that will ensure the enrolment of a sufficient number of students, but concrete activities at operational levels do not follow the required dynamics of change.

The Polytechnic does not have its own space, but uses a leased space at all locations, which impedes sufficient flexibility and could potentially be a constraint on further development and in obtaining funds from European funds for the purpose of equipping its premises. Recently, the Polytechnic has developed its presence in the media and on social networks, but we believe that the Polytechnic's visibility is still insufficient. A complete targeted marketing approach that would allow us greater visibility and recognizability has not yet been conceived, nor has a systematic monitoring of the careers of our graduates (contacts with the aim of promotion, but also feedback to improve study programmes).

OPPORTUNITIES

Business entities in the region, as well as higher education institutions in the Republic of Croatia and the European Union, are becoming increasingly interested in cooperation. Business entities today are primarily motivated by discovering students with potential while they are still studying, and this allows students to find the future employer while studying. In addition, this type of cooperation also enables the transfer of knowledge in both directions (between educational and business institutions), the promotion of all stakeholders, the development of potential to work on joint projects and other potential benefits. In this context, the orientation toward developing cooperation with our graduates who have built respectable (entrepreneurial) careers may be additionally useful.

At the level of strategic orientation of most higher education institutions, the importance of cooperation with the ultimate goal of enhancing quality, competitiveness and education that will be globally recognized and valued is emphasized. Joint projects, networking and cooperation stand out as a key part of Europe's strategic orientation in the field of higher education.

Local government and self-government units can support the work of the Polytechnic in various ways: by cooperating on the innovation/ creation of study programmes, i.e. lifelong learning programmes according to their needs; launching joint projects at different levels; providing a teaching base for specific areas; providing support in securing spatial conditions and many others (an example of good practice is cooperation with the Centre for Agriculture and Rural Development of Primorje-Gorski Kotar County in the field of the professional study programme of Sustainable Agritourism).

Given the rapid changes in the labour market in terms of sought competencies, there is a growing demand for short, targeted education programmes in specific areas (lifelong learning). Since the Polytechnic of Rijeka is a multidisciplinary institution, the possibilities for creating such programmes in different fields and interdisciplinarily are open.

European funds are a source of possible funding for the development projects of the Polytechnic of Rijeka (education programmes, education internationalization, etc.). In areas of complex projects at the local, regional and national level, the Polytechnic, with its professional staff from various fields, can certainly represent a desirable stakeholder.

Given the dynamics on the market, business entities need adaptable employees who will quickly master work challenges and acquire the necessary competencies. In this context, professional higher education should be a training ground for the education of highly qualified personnel who will, with their specific professional knowledge, meet the needs of today's employers. This is an opportunity for the Polytechnic of Rijeka which has, through its 20 years of operation, already proven itself to be a higher education institution whose graduates build remarkable careers. There is room for continuous review of the content of study programmes and courses for faster transfer of new demands of the labour market to educational contents. The rapid implementation of new technological trends in the teaching process can make the teaching process even more accessible and attractive.

For young people in the region, from countries that are not part of the European Union, obtaining a diploma in the Republic of Croatia provides employment opportunities in a wider area. Given the lack of a language barrier and the attractive location of the Polytechnic of Rijeka, this is a potential opportunity to attract more foreign students from the region or students from the Croatian diaspora. Immigration of young people from the region in search of jobs in the Republic of Croatia also contributes to this. Expanding the base of the Polytechnic's students to a wider regional area could mitigate the effects of negative enrolment trends.

THREATS

The perception of professional studies as inferior to the university studies (especially at a time when the base of potential students is shrinking) has a significant negative impact on our attractiveness. Although we have been a part of the higher education system for 20 years, our qualifications are still not sufficiently recognized in the labour market nor in legislation (e.g. the State Inspectorate Act that does not recognize the qualification of our specialist engineer of safety and security in the work of the labour inspectorate), and the constitutionality review of the draft of the Croatian Qualification Framework Act certainly had a negative impact on the public perception of the Polytechnic.

Demographic trends in Croatia (as well as across Europe) are driving a significant reduction in the number of new students. In addition, the trend of emigration of our young population to EU countries and the free movement in the EU higher education area, which enables our young people to study at European higher education institutions, further reduces the number of potential students. The interest for part-time studies has decreased, which is partly influenced by the saturation of the local market, but also by all of the above factors, including unemployment and emigration of the younger working age population. With increased competition from public and private higher education institutions conducting professional studies, faculties are also beginning to integrate professional student practice into their study programmes, and therefore we lose the initial competitive advantage in this field.

The globally unstable political situation and terrorism negatively affect the exploitation of the extensive student mobility opportunities that exist within the ERASMUS programme. Although we invest significant efforts to promote international mobility, we are seeing a decline in interest caused by a sense of insecurity.

As already mentioned, the Polytechnic does not have its own space, but uses a leased space at all its locations, which carries the risk of the lessor changing the lease terms, but also the dependence on their consent in case of need for additional investment.

In the financial sense, there are additional threats from our environment: increase in the cost of living, high cost and speed of obsolescence of information technology, changes in the manner of financing the core business by the competent Ministry, etc.

STRENGTHS	WEAKNESSES
<ul style="list-style-type: none"> • Diversity of study programmes in different scientific fields (technical, biotechnical and social fields) • Recognizability and uniqueness of most of the study programmes • Qualified teachers from various professional and scientific fields • Systematic care for the professional development of teaching and non-teaching staff • High grade of student satisfaction with the quality of teaching by courses • High grades given by graduates to study programmes quality • Employee involvement in professional organizations • Involvement of a large number of practitioners in the teaching process (external assistants and guest lecturers) • International staff mobility (incoming and outgoing) • Significant share of practical classes in student workload and fieldwork • Use of e-learning systems • Organization of teaching processes adapted to part-time students • Active development of student mobility opportunities • Active student organizations • Partnership relationship with students • Attractive location and transport connection • Continuous investment in equipment according to external and internal requirements (laboratories, computer equipment, software, etc.) • Cooperation with business entities, domestic and international higher education 	<ul style="list-style-type: none"> • Dynamics of additional training of teaching staff in different fields (new teaching and assessment methods, use of technologies e.g. e-learning, knowledge of foreign languages, etc.) in view of the speed of change in the region • Difficulty in recruiting new teachers from the STEM field • Employee motivation for additional engagement is linked with insufficient opportunity for appropriate stimulation (limited by existing regulations) • Resistance of a part of employees to the introduction of changes and adjustment to the <i>market orientation</i> of the Polytechnic • Dynamics of study programmes revision • Insufficient differentiation of a part of the study programmes with respect to similar studies in the region • Decrease in the number of enrolled students • Systematic monitoring of employability and careers of our graduates • Space constraints - lack of own space • Insufficient publicity (insufficient media presence) • Utilization of capacities for inter-institutional cooperation at national and international level

<p>institutions</p> <ul style="list-style-type: none"> • Cooperation with the local community • Quality culture and quality certificates • Promotion on social networks • Own publishing activity • Indexed Journal of the Polytechnic of Rijeka • Development of lifelong learning programmes • Socially responsible engagement of our employees and students 	
<p>OPPORTUNITIES</p>	<p>THREATS</p>
<ul style="list-style-type: none"> • Willingness of business entities to cooperate with higher education institutions in the implementation of professional student practice and other forms of cooperation • General orientation of higher education institutions (domestic and international) to cooperation (mobility programmes, various projects, joint study programmes, etc.) • Willingness of local government and self-government units to cooperate in different fields of interest • Demand for short, targeted, specialized education programmes (courses, lifelong learning programmes, distance learning, etc.) • Availability of EU funds for higher education (for the financing of equipment, study programmes development, employee education, internationalization and other areas of development) • Availability of various local, regional and national projects • Development of modern technology in order to modernize or support the teaching process • Demand for employee profiles with specific professional/specialist knowledge on the labour market • Expansion of the student base to a wider regional area • Cooperation with graduates who have built respectable careers 	<ul style="list-style-type: none"> • Lack of a specific profile of potential employees (teachers) in the labour market (STEM field) • Perception of professional studies as inferior to university studies • Slow adjustment of legislation to the binary education system • Globally unstable political situation and terrorism • Demographic trends and emigration • Increasing competition in higher education (in Croatia and the EU) • Reduced demand for part-time studying • Change of the terms of business premises lease (e.g. rent increase, contract termination, etc.) • Increase of the cost of living • Rapid obsolescence of technology (resource and competency challenges) • Changes in the public higher education financing system