



**REPORT  
OF THE EXPERT PANEL  
ON THE  
RE-ACCREDITATION OF  
THE POLYTECHNIC HRVATSKO ZAGORJE IN KRAPINA**

**Date of preliminary site visit: 16 March 2021  
Date of on-line re-accreditation: 17 – 19 March 2021**

May 2021

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## INTRODUCTION

The Agency for Science and Higher Education (the Agency) is an independent legal entity with public authority, registered in the court register, and a full member of the European Quality Assurance Register for Higher Education (EQAR) and European Association for Quality Assurance in Higher Education (ENQA).

All public and private higher education institutions are subject to re-accreditation, which is conducted in five-year cycles by the Agency, in accordance with the Act on Quality Assurance in Science and Higher Education (Official Gazette 45/09) and subordinate regulations, and by following *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (ESG) and good international practice in quality assurance of higher education and science.

The Agency's Accreditation Council appointed an independent Expert Panel for the evaluation of the Polytechnic Hrvatsko zagorje in Krapina.

Members of the Expert Panel:

- Asst. prof. Marina Gregorić, Ph.D., senior lecturer, University North, Republic of Croatia, Panel chair,
- Assoc. prof. Alen Jakupović, Ph.D., college professor, Polytechnic of Rijeka, Republic of Croatia,
- Nataša Trojak, Ph.D. senior lecturer, Algebra University College, Republic of Croatia,
- Prof. Dr. Gerd Wintermeyer, SRH University of Applied Sciences in North Rhine-Westphalia, Federal Republic of Germany,
- Mislav Kapulica, VERN' University, Republic of Croatia, student.

During the on-line re-accreditation, the Expert Panel held meetings with the following stakeholders:

- Management,
- Quality Department,
- Students,
- Heads of study programmes,
- Full-time teaching staff,
- External lecturers,
- Alumni,

- ECTS coordinator, Practical work officer, Head of Department for Publishing Activity, Professional Development and Lifelong Learning,
- Representatives of the business sector, potential employers.

Croatian Expert Panel members went to a preliminary site visit on 16 March 2021 and had a tour of the laboratories, reading room, IT classrooms, student administration office and classrooms, and attended sample lectures, where they held a brief Q&A session with students.

During the preliminary site visit, the Expert Panel examined the available additional documents and study programme descriptions (learning outcomes).

The Expert Panel drafted this Report on the re-accreditation of the Polytechnic Hrvatsko zagorje in Krapina on the basis of the Polytechnic Hrvatsko zagorje in Krapina self-evaluation report, other relevant documents, preliminary site visit and online meetings.

The Report contains the following elements:

- Short description of the evaluated higher education institution,
- Brief analysis of the institutional advantages and disadvantages,
- List of institutional good practices,
- Analysis of each assessment area, recommendations for improvement and quality grade for each assessment area,
- Detailed analysis of each standard, recommendations for improvement and quality grade for each standard,
- Appendices (quality assessment summary by each assessment area and standard, and protocol),
- Summary.

In the analysis of the documentation, preliminary site visit to the Polytechnic Hrvatsko zagorje in Krapina, online meetings and writing of the Report, the Expert Panel was supported by:

- Maja Šegvić, coordinator, ASHE,
- Iva Žabarović, assistant coordinator, ASHE,
- Vladivoj Lisica, interpreter at the preliminary site visit and during online meetings,
- Ivana Rončević, translator of the Report, ASHE.

On the basis of the re-accreditation procedure conducted, and with the prior opinion of the Accreditation Council, the Agency issues a following accreditation recommendation to the Minister for Higher Education and Science:

1. **issuance of a confirmation on compliance with the requirements** for performing the activities, or parts of the activities
2. **denial of license** for performing the activities, or parts of the activities
3. **issuance of a letter of expectation** with the deadline for resolving deficiencies of up to three years. A letter of expectation can include the suspension of student enrolment within a set period.

The accreditation recommendation also includes a quality grade of a higher education institution, and recommendations for quality improvement.

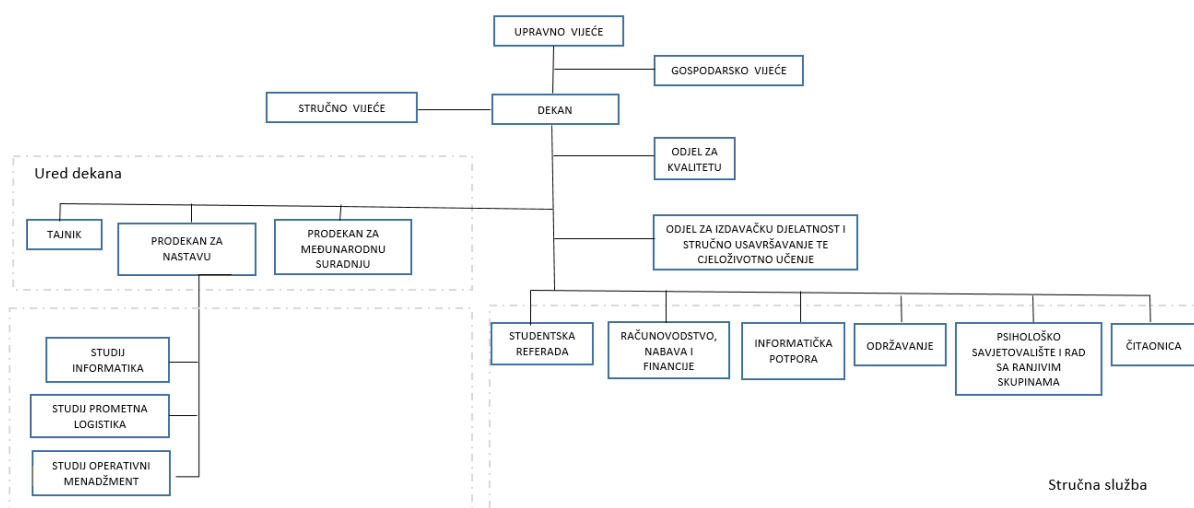
# SHORT DESCRIPTION OF THE EVALUATED HIGHER EDUCATION INSTITUTION

**NAME OF HIGHER EDUCATION INSTITUTION:** Polytechnic Hrvatsko zagorje in Krapina

**ADDRESS:** Šetalište hrvatskog narodnog preporoda 6, 49000 Krapina

**DEAN:** Nenad Sikirica, senior lecturer

## ORGANISATIONAL STRUCTURE:



## STUDY PROGRAMMES:

### Undergraduate professional study programmes

- Informatics
- Transport logistics
- Operational Management

## NUMBER OF STUDENTS:

**Full-time students – 176**

**Part-time students – 62**

## NUMBER OF TEACHERS:

**Full-time staff – 7**

**Cumulative employment - 3**

## **SHORT DESCRIPTION OF THE EVALUATED HIGHER EDUCATION INSTITUTION**

The Polytechnic Hrvatsko zagorje in Krapina was founded in 2007. as a private higher education institution and the only HEI in Krapinsko – zagorska County. Its founders were Krapinsko – zagorska County, City of Krapina, Municipalities Radoboj, Đurmanec, Petrovsko, Hum na Sutli, Public Open University “Kotka” Krapina, companies OMCO d.d. Hum na Sutli, Presečki grupa d.o.o. Krapina, Strahinjčica trgovina d.o.o. Krapina, Krakom d.o.o. Krapina and Pekom d.o.o. Krapina. In 2019 the Government of the Republic of Croatia decided on the transfer of founding rights over the institution from its founders to the Republic of Croatia, where the rights and duties of the founder shall be executed by the Ministry of Science and Education.

The institution performs its activity by organising and conducting three undergraduate professional studies in the scientific area of technical sciences and social sciences. Polytechnic Hrvatsko zagorje in Krapina operates in the premises of Krapina secondary school with which it has concluded a lease contract.

## **BRIEF ANALYSIS OF THE INSTITUTIONAL ADVANTAGES AND DISADVANTAGES**

### **ADVANTAGES OF THE INSTITUTION**

1. Personal commitment and motivation of management;
2. External lecturers;
3. Local community support;
4. Overall student satisfaction.

### **DISADVANTAGES OF THE INSTITUTION**

1. Lack of implementation of internal quality procedures;
2. Lack of permanently employed staff and their competences;
3. Unclear aspects of the overall financial situation;
4. Consistency and quality of study programmes;
5. International mobility of students and staff.

## **LIST OF INSTITUTIONAL GOOD PRACTICES**

### **EXAMPLES OF GOOD PRACTICE**

1. Research activities with international institutions (UK, Bulgaria);
2. Lectures from representatives from international research partners (UK, Bulgaria);
3. Taken initiative in improving local entrepreneurship.



## **ANALYSIS OF EACH ASSESSMENT AREA, RECOMMENDATIONS FOR IMPROVEMENT AND QUALITY GRADE FOR EACH ASSESSMENT AREA**

### **I. Internal quality assurance and the social role of the higher education institution**

#### **Analysis**

The internal quality system has been formally created, but its implementation has not yet been commenced. Documentation and procedures were prepared, but not implemented in practice, and not all stakeholders participated in their preparation and implementation. It is also necessary to ensure the continuity of data collection from relevant stakeholders and to base decisions on quality improvement at the institution on this data. There is no evidence that a human resources development policy has been implemented. Recommendations from previous evaluations have been partially implemented, but improvement processes are sporadic and not fully documented. No internal evaluation was conducted. A major shortcoming is the website, which contains information only in Croatian (except for a small part related to international cooperation and written in English). But the information available is relevant and satisfactory. The institution has established cooperation with high schools in the Krapina-Zagorje County, and students who have just enrolled in the study programs can get most information from the brochure prepared for them and through introductory lectures. But there is a need for better information concerning international exchange and information about study plans (e.g., subjects per study year and semester). The social role of the institution is recognized in the area in which the institution operates, but is very limited by the number of employees operating in the area. There are no lifelong learning programs.

#### **Recommendations for improvement**

1. Implement existing documents in the field of quality management system.
2. Periodically evaluate the current situation and plan and implement system improvements.
3. Regularly collect information from relevant stakeholders and base possible improvements on them.
4. Make additional efforts in human resources management strategy and policy.
5. In addition to external evaluations, it is necessary to introduce regular internal evaluations of the quality system and systematically record the recommendations and the course and progress of their implementation (and support everything with documentation).

6. Make the plagiarism check system mandatory for all student papers.
7. Ensure the continuity of the work of the student body.
8. Translate a website into at least one foreign language in its entirety.
9. Strengthen your social role by involving more employees in more socially relevant projects.
10. Activate existing plans for lifelong learning programs.

### Quality grade

Minimum level of quality

## II. Study programmes

### Analysis

The study programs conducted by the HEI are in line with its mission and strategic goals. According to the content of learning outcomes, the studies are at level 6 of the CROQF, and according to the Dublin descriptors, learning outcomes cover all categories. A review of learning outcomes needs to be made at the level of study programs and at the level of courses, in order to ensure their appropriate number, good coverage, generality, simplicity and measurability. In the methods of checking the learning outcomes, it should be clearly stated which part refers to which learning outcome. Re-checking the learning outcomes already passed by the student should also be avoided.

All study programs include student practice. The number of hours provided for student practice needs to be increased since this was the recommendation of the last re-accreditation, but also the proposal of various stakeholders in this re-accreditation.

The HEI also submitted some syllabi of the courses that are not delivered at all in study programs, which indicates a superficial concern about syllabi, which should definitely be changed.

Various stakeholders participate in the development of study programs, but only in an informal way. In order to ensure the continuity and quality of the process of developing new and harmonizing existing study programs with the needs of the labour market, it is necessary to define and implement appropriate formal procedures.

Participation in the EU project "Implementation of the CROQF in professional studies of computer science" should be used for the adoption of the CROQF methodology and its application to other study programs.

The HEI collects data using surveys. From the presented examples it can be concluded that the questions are too general and it is questionable whether concrete conclusions

can be drawn from answers. Students are not familiar with the results of the surveys and the measures taken.

### Recommendations for improvement

1. Revise the learning outcomes of study programs and courses. They need to be simplified, generalized, measurable and their number should be adequate. Also, coverage of study program outcomes with course outcomes should be sufficient.
2. Some syllabi refer to courses that are not related at all to the study program. This indicates a lack of care for the syllabus. All interested stakeholders must be aware of the need to take care of the syllabi.
3. In all examination methods, it is necessary to clearly determine which part of it covers which learning outcome. If the student has acquired the conditions for taking the exam, it is desirable that the student is not re-examined of the passed learning outcomes.
4. Increase the number of hours of student practice and significantly increase the number of agreements with employers that would be the basis for student practice.
5. Establish and implement formal procedures related to: ensuring the harmonization of the general objectives of the study program with the strategic objectives, collection and analysis of data on the needs of the labour market and analysis of the capacities required for the implementation of study programs.
6. Use the participation in the EU project "Implementation of the CROQF in professional computer studies" to apply CROQF methodology in other study programs.
7. Surveys should have well-defined questions whose answers will be the basis for making decisions. Ensure that students are informed about the results of the conducted surveys and the measures taken or changes that have been implemented.

### Quality grade

Minimum level of quality

### III. Teaching process and student support

#### Analysis

It is clear that the HEI maintains a very high satisfaction of its students. Student support is formalized and appropriate, their satisfaction is tracked using surveys and their problems are usually quickly resolved through formalized channels. The teaching process uses various teaching methods and encourages student's independence in their work. Admission criteria and criteria for continuation of studies are clearly defined, published and consistently applied. There are established procedures for providing support for students from vulnerable and underrepresented groups, but students are mostly unfamiliar with them. The HEI allows their students to gain international experience, but so far there hasn't been almost any activity in that field. Students were not properly introduced to such possibilities and the information for foreign students is not complete, nor easy to find. Teachers in the introductory lecture present ways to check learning outcomes. The students stated that some teachers do not adhere to that. The higher education institution collects data related to: course passing, passing from one year of study to another, number of graduates and number of dropouts and quality of the teaching process. It is not clear how this data is further used or what actions were taken based on the data collected.

#### Recommendations for improvement

1. Properly inform students of their rights and possibilities for support and gaining international experience.
2. Encourage students to be more involved in the projects and foreign exchange.
3. Establish a career centre for students' guidance and counselling.
4. Update the website to support at least one foreign language to insure adequate information for foreign students.
5. Include students' input on study programmes and its subjects to select appropriate student workloads and further improve learning outcomes.
6. Ensure that teachers adhere to the assessment methods described in the syllabi of the course.
7. Establish and implement a procedure that will enable the recording of actions taken on the basis of collected and analysed information on pass rate, the number of graduates, the number of dropouts and the quality of teaching process.

#### Quality grade

Minimum level of quality

#### **IV. Teaching and institutional capacities**

##### **Analysis**

The overall teaching and institutional capacities of the HEI are currently low and at the minimum level of quality. The reasons for that are different, but mainly caused by few major factors; instable and not sustainable financial situation, and small number of internal teachers. As a consequence of this, many other problems can't be solved quickly because the lack of funds for employing more internal teachers and lack of financial sources to support development of infrastructure and other resources cause the struggle in implementation of the overall quality of teaching. The teachers' workload in terms of number of hours teaching is good, but they do have other institutional duties and the HEI can't afford to hire more staff who would take over some of the administrative functions such as Erasmus coordination, practical training, lifelong learning, library, research, professional and scientific development, improvement of study programs and syllabi, revision of learning outcomes and examinations, students office, etc. The management is also highly involved in teaching process as well as managerial duties. The staff employed on the 50% are not able to commit fully to HEI's needs and development. Majority of the staff is recruited recently and there is a lack of competencies and experience in other tasks (which were not yet implemented at HEI). There is a strong motivation from management to solve the financial situation and to improve teaching and institutional activities but they depend on the others (previous and current owner). The institution is also dependant on external teachers in realisation of study programs (35% is delivered by internals and 65% by externals). The international cooperation is in the initial stage while Erasmus+ is not implemented (only formally, but no incoming and outgoing mobility). The space and infrastructure are leased from Krapina secondary school and additional space is in the process of preparation. However, the new space will help to improve overall quality of HEI but there are still limitations (no restaurant for students and no own building or one building and space where HEI would be independent of secondary school).

##### **Recommendations for improvement**

1. Continue to enforce the collection of debt by previous owners and ensure financial stability of the HEI.
2. Hire more internal teachers and distribute overall workload according to competencies and other duties/functions.

3. Implement Erasmus+ and motivate students, staff and international partners to participate in mobility.
4. Set up sufficient library and hire a full-time librarian.
5. Fund more library resources and ensure resources and facilities to teachers' and students' research activity as well as professional and scientific development.
6. Intensify cooperation with local, national and international stakeholders.
7. Develop and implement lifelong learning programs in order to increase revenue from self-funding.
8. Create entrepreneurial environment and engage in incubator of Krapina - Zagorje County more (start-ups, university/high school entrepreneurship development).

### Quality grade

Minimum level of quality

## V. Professional and/or scientific activity

### Analysis

Members of the HEI are active and visible in various scientific and professional activities on a national and international stage. Most of the international activities are performed in collaboration with international partners. Two of these partner institutions, one from the UK and one from Bulgaria, participated in the expert panel discussions carried out in March 2021. The international activities include research projects as well as participation in international conferences and presentation of papers. Staff members are holders of board and office positions in scientific and professional organisations.

Professional activities are focussed on the region. They mainly include a participation in the Technological incubator in Krapina. Informal and in some cases formal collaborations with regional enterprises in the region exist as well. Recommendations from local businesses which act as potential employers for graduates to update and develop the existing study programs are received and processed in an informal way.

The major part of the scientific research activities is undertaken in the area of navigation and localisation systems and mainly serves the need of the study programs informatics/transport logistics. The research activities are not distributed equally between the members of the staff of the HEI. The bulk is performed by a small group of people who all belong to the senior part of the staff. There is no formal procedure

implemented which encourages staff members to participate in scientific or professional activities.

Papers are continuously published at a rather stable rate over the last 5 years. The authors are as well concentrated mainly on a small group of senior staff members.

Lecture room equipment to carry out research activities exists and is again mainly dedicated to research activities relevant to informatics or related fields.

### Recommendations for improvement

1. Continue with the existing international collaborations and intensify the already exiting approaches to include students into those research activities.
2. Develop a program of professional research activities focussing deliberately on transport logistics or logistics in general and supply chain management. Try to find local business partners to support these research activities.
3. Develop a research program focussing on the requirements of the study program operational management and try to find local partners for that.
4. Identify research areas where competencies in the existing different study programs can be combined to create unique strengths in selected areas of research which are peculiar to the HEI – e.g., usage of informatics in the area of transportations logistics.
5. Align an extended student practice for interested students with professional research activities in collaboration with local business partners.
6. Activate and live an incentive system for all staff members which encourages participation in research activities and publications.
7. Develop a career path for junior lectures to attract new staff members who are interested to pursue an academic, research-oriented career to the HEI.

### Quality grade

Minimum level of quality

## **DETAILED ANALYSIS OF EACH STANDARD, RECOMMENDATIONS FOR IMPROVEMENT AND QUALITY GRADE FOR EACH STANDARD**

### **I. Internal quality assurance and the social role of the higher education institution**

#### **1.1. The higher education institution has established a functional internal quality assurance system.**

##### **Analysis**

The HEI has all formal documents needed for establishing the solid and functional internal quality assurance system. Quality assurance policy is published on web pages, strategy for 2019-24 is written as well as Quality manual. The Quality Department has been established. However, the quality and implementation of quality assurance documents is not on satisfying level, therefore these documents are only formally written, but not implemented. It is not evident if different stakeholders participated in creating and implementing above mentioned documents, and during the meetings present stakeholders said they did not participate in drafting the documents. The collection of data is not systematic and most surveys were recently conducted. There is no evidence that human resource management policies are implemented, which is partly due to the fact that the number of employees is not sufficient, but despite the objective difficulties of the HEI, human resources have to be an important part of quality assurance system. During the meetings with different stakeholders, the members of the panel got the impression that there is a strong will to develop the quality system to a satisfactory, or even high level, but the current limitations in the number of employees and financial resources do not allow it.

##### **Recommendations for improvement**

1. All existing documents related to the quality management system have to be implemented.
2. In accordance with the prescribed processes and procedures, it is necessary to define a periodic assessment of the quality system on which the results of the analysis and the necessary improvements will be recorded in writing.
3. Planned improvements need to be implemented in a timely manner.
4. It is necessary to formally involve all relevant stakeholders (students, alumni, employers, civil society, etc.) in the quality management process, either as



collaborators in creating documents, or as collaborators in the implementation of prescribed processes, or as members of boards and bodies responsible for the quality system.

5. It is suggested that the documents contain information about the persons who participated in the drafting of the documents, in order to record all stakeholders that participated in their creation.
6. Data collection needs to be formalized and conducted regularly through surveys or otherwise. Based on the results of the analysis of this data, it is necessary to introduce improvements in all areas of HEI.
7. Significantly more effort needs to be put into human resource management policies, from recruitment planning, through employee professional development, to retention mechanisms for existing employees, while respecting constraints that HEI cannot influence.

### Quality grade

Minimum level of quality

## **1.2. The higher education institution implements recommendations for quality improvement from previous evaluations.**

### Analysis

Members of the panel analysed results of previous accreditation processes and the reports of implemented recommendations that the HEI conducted. The reports contain a summary of the recommendations from the accreditation processes and information on the degree of implementation of the recommendations (done or partially done), and the information is partially confirmed by the submitted documentation. It is evident that the HEI is using recommendations as basis for development and that certain number of activities was introduced as a reaction on accreditation results and recommendations. However, like the previously described processes on which the quality management system is based, the improvement processes are sporadic and not fully documented. Formally, this element of the quality management standard can be assessed as positive, but significant efforts need to be made to systematize these processes and to implement them on a regular basis.

Internal evaluations are not available in written format, and during the meetings members of the panel didn't receive the information that different stakeholders have the information that such evaluation is conducted.

### Recommendations for improvement

1. Recommendations of reaccreditation processes need to be implemented in the quality management system.
2. Quality assessment should be carried out on a regular basis by periodically reviewing what activities have been planned and what has been done.
3. The results of the implemented recommendations need to be supported by documents.
4. If the recommendation has been partially implemented, it is necessary to state what is and what has not been implemented and how and when the recommendation is planned to be fully implemented.
5. It is necessary to regularly implement internal evaluations, and the holder of this activity should be the Quality Department.

### Quality grade

Minimum level of quality

## **1.3. The higher education institution supports academic integrity and freedom, prevents all types of unethical behaviour, intolerance and discrimination.**

### Analysis

The institution has a written and published code of ethics that regulates the field of academic integrity and defines unethical behaviour. In a conversation with various stakeholders, the members of the panel received information and proof that only one case of unethical behaviour was processed, which refers to the physical confrontation of two students in the premises of the institution, in which the police also intervened. There were no other cases, neither related to copying on tests or plagiarism of seminar or final papers. The institution has the possibility to check the originality of student papers through PlagScan software (for which the committee received several examples of verification) and Turnitin program. Currently, checks are carried out only for final thesis. At the moment, students do not have an elected student ombudsman, and according to information obtained from interviews with various stakeholders, they resolve their complaints through the student office.

### Recommendations for improvement

1. The Code of Ethics needs to be fully implemented, which includes continuous monitoring of whether the behaviour of all stakeholders meets ethical standards.

2. Plagiarism detection programs should be introduced as mandatory, not only for final thesis, but also for seminar papers, and potentially for shorter essays, assignments and the like.
3. Student representatives should select a student ombudsman to represent student rights, and students should be notified about this person.
4. It is necessary to ensure the continuity of the work of the student body.
5. Make the Code of Ethics publicly available on the HEI's website.

### Quality grade

Minimum level of quality

#### **1.4. The higher education institution ensures the availability of information on important aspects of its activities (teaching, professional and/or scientific and social role).**

#### Analysis

Information on study programs and other activities on web page is available only in Croatian, which is a major drawback. Only one part of the information, the one related to the possibility of international exchange, is available in English. Information is available on the activities of the institution, programs, enrolment conditions, enrolment fees, learning outcomes at the subject level, teaching calendar, etc. The information available can be assessed as satisfactory, but important information about study programs and subjects per year and per semester are not available. Also, there is no publicly available information about number of subjects per semester, or which subjects are mandatory and which subjects are optional. A brochure with basic information about the study is available for newly enrolled students, which is distributed to students in the first week of classes. In that week, an introductory lecture is organized where the Dean and his associates present the most important information to the students. The institution cooperates with high schools in its area, where they present their programs and the opportunities they offer, and they are regularly advertised in the yearbook of Zagorje high school graduates, which was presented to the commission.

Within the publications related to the activities of the institution, activities indicating participation in public activities (co-organization of scientific conferences, participation in projects, working groups, etc.) were also published. From discussions with external stakeholders, members of the panel received information on the active participation of the institution and its representatives in various county and city bodies. However, it was

not possible to obtain detailed information on students' pass rates, their employability and the like.

#### Recommendations for improvement

1. One of the priorities should be the translation of the website into at least one foreign language.
2. It is recommended to publish learning outcomes at the level of study programs.

#### Quality grade

Minimum level of quality

### **1.5. The higher education institution understands and encourages the development of its social role.**

#### Analysis

Given the insufficient number of employees and lack of space, the panel understands that this is a major constraint on a more active social role. Most activities in this area take place through a sports association and sports program, which includes student volunteering in various projects.

Research-related and teaching-related activities are present to a satisfactory extent, however only a few employees represent the bearers of these activities.

There is no evidence of community teaching. The social role of the HEI is recognized, but very limited. There is potential for strengthening the social role through cooperation with the Business Technology Incubator.

#### Recommendations for improvement

1. It is necessary to continue with the existing activities while maintaining the existing intensity of the same.
2. In accordance with the possibilities of the activities, it is necessary to expand through the inclusion of a larger number of employees in the existing activities and the design of new ones.
3. Organize, in collaboration with the Business-Technology Incubator, workshops for start-up entrepreneurs from the area covered by the HEI's study programs.
4. We suggest trying to establish cooperation with civil society organizations through which the social role of the HEI can be strengthened.

#### Quality grade

Minimum level of quality

**1.6. Lifelong learning programmes delivered by the higher education institution are aligned with the strategic goals and the mission of the higher education institution, and social needs.**

#### Analysis

The institution currently does not have registered and does not implement lifelong learning programs. The panel received plans for the activation of lifelong learning program, the implementation of which was stopped by the Covid-19 crisis. However, the possibilities of activating the lifelong learning program are also limited by spatial possibilities, because the institution shares the space with the high school. The panel visited the new space, which is still in the renovation phase, and which should have a positive impact on this element of quality. Activating lifelong learning programs can have a positive impact on financial performance.

#### Recommendations for improvement

1. Activate existing plans and already created lifelong learning program as soon as possible.

#### Quality grade

Unsatisfactory level of quality

## II. Study programmes

**2.1. The general objectives of all study programmes are in line with the mission and strategic goals of the higher education institution and the demands of the labour market.**

#### Analysis

The strategy of the HEI states the mission "To educate experts in areas relevant to the region and society while respecting business ethics and setting high value criteria.". The strategic goals that can be related to the general goals of the study programs are: "Increasing interest in all study programs through promotional activities.", "Analysis of market feedback on the employment of graduates with the aim of increasing their employment", "Revisions of existing study programs", "Initiating graduate professional studies in line with labour market needs."

At the meeting with the management, the Quality Department and the heads of the study programs, it was determined that the revision of all study programs and syllabi of the course was done. The changes were based on teachers' suggestions as well as informally collected data obtained from various stakeholders (e.g., alumni, representatives of the Ministry of the Interior, local and regional business community and local and regional authorities).

At the meeting with students and external stakeholders, it was determined that there is a need for graduate professional studies.

All of the above speaks in favour of trying to keep the general goals of the study programs in line with the mission and strategic goals of the strategy. However, the lack of formal procedures for harmonizing the general objectives of study programs that would ensure the continuity of the process may call into question the final result of their compliance with the strategy.

At the meeting with the Quality Department, it was clearly emphasized that the person who should be responsible for the development of the study program is the head of the study program. The heads of study programs should be aware of this fact.

At a meeting with the management, the Quality Department and the vice dean for teaching, it was established that information on labour market needs is obtained through informal communication with local and regional business community and alumni.

At a meeting with external stakeholders, it was established that local and regional authorities were involved in setting enrolment quotas.

All of the above shows that the HEI had at its disposal informal data on the needs of the labour market, which it could include in the revision of its study programs. The lack of formal procedures for collecting data on labour market needs can have a strong impact on the quality of data collected and the continuity of their collection.

At the meeting, external stakeholders and alumni confirmed the justification of conducting study programs, and the need to launch appropriate graduate professional studies was emphasized.

At the meeting with the administration and the vice dean for teaching, it was determined that there is a concern about the capacities that the HEI needs in order to carry out the study programs. There is also an awareness of a shortage of teaching staff.

However, the lack of formal procedures can affect the continuity of the process of checking the justification of study programs as well as the analysis of the necessary capacities for their implementation.

The HEI does not conduct study programs that lead to regulated professions.

### **Recommendations for improvement**

1. Establish and implement formal procedures related to: ensuring the harmonization of the general objectives of the study program with the strategic

objectives, collection and analysis of data on the needs of the labour market and analysis of the capacities required for the implementation of study programs.

2. Make the heads of study programs clearly aware of the fact that it is their responsibility to develop study programs and accordingly establish and implement formal procedures for carrying out the development process.

### Quality grade

Minimum level of quality

## **2.2. The intended learning outcomes at the level of study programmes delivered by the higher education institution are aligned with the level and profile of qualifications gained.**

### Analysis

The HEI conducts three undergraduate professional study programs: Informatics, Transport Logistics and Operational Management. All study programs have defined learning outcomes (visible from the document submitted to the Self –evaluation Report "TOPIC 2 - STUDY PROGRAMMES") whose contents are in line with the mission and goals of the HEI stated in the strategy.

The study programs Transport Logistics and Operational Management have 22 and 25 learning outcomes, which is more than the desired number from 15 to 20. Also, the stated learning outcomes are in some cases too complex (e.g., "Define the software required for (office) business, and master the skill of gathering the necessary business information by the methods of Business Intelligence (BI), and implement security measures to protect the information and communication system."). The learning outcomes of the study program should be general enough but also specific and clear so that students can understand what competencies they will have when they complete the study program.

The HEI conducted a review of learning outcomes at the course level and at the level of study programs. One of the results is the matrix of learning outcomes visible in the document submitted to the Self –evaluation Report "TOPIC 2 - STUDY PROGRAMMES".

In this matrix it is evident that there are learning outcomes at the level of the study program to which only one course contributes - Informatics: 2 learning outcomes out of 18, Transport logistics: 9 learning outcomes out of 22, Operational management: 11 learning outcomes out of 25. It is unlikely that a student will achieve a learning outcome at the program level that is covered with only one course.

The syllabi of some courses (e.g., the document Silabusi\_INF) defines learning outcomes that are not measurable (e.g., the course Databases I and the outcome "Learn Data Description Language (DLL) and use on examples"). Also defined learning outcomes are

too complex (e.g., course Organization and economics of enterprise and learning outcome "to apply the organization of business functions and compare the economics of business, resources, work process and functions and examine on simpler examples the economics of means of work and objects of work as basic indicators of business efficiency"). Defined outcomes should show students clearly and precisely what competencies they will acquire by the course. In defining learning outcomes, the fact that learning outcomes at a higher level of Bloom's taxonomy imply achieving learning outcomes at a lower level should certainly be used. Therefore, as a learning outcome, it is sufficient to list the one at the highest level, which can significantly simplify them.

Some syllabi refer to courses that are not related at all to the study programs of a HEI (e.g., Informatics I where the study program Aircraft Maintenance is listed). This suggests a superficial care for the syllabi.

The HEI conducts three undergraduate professional studies. From the content of learning outcomes at the level of the study program, it can be concluded that they correspond to level 6 of the Croatian Qualifications Framework.

Since 2019, the higher education institution has been participating in the EU project "Implementation of the CROQF in professional computer studies". It is desirable that they apply the CROQF methodology to their other study programs.

In the context of Dublin descriptors, the learning outcomes of study programs cover all categories.

However, it is necessary to revise the number of learning outcomes at the level of the study program, their level of generality and complexity.

At the meetings with the Department of Quality, the Vice Dean for Teaching, external lecturers and external stakeholders, it was found that the HEI informally collects data on the professional requirements which it then includes in reviewing learning outcomes. An economic council has been recently established.

There is lack of formal procedures and their implementation related to the defining learning outcomes. These procedures would ensure the continuity of the process of adapting learning outcomes to the professional requirement. The further work of the Economic Council should also be strongly encouraged.

The contents of learning outcomes are the basis for the acquisition of competencies necessary for employment, continuing education or for other needs. The clarity of learning outcomes is low as some are too complex and their generality is questionable.

### Recommendations for improvement

1. Revise the learning outcomes of study programs so that their number is between 15 and 20.



2. Some learning outcomes at the study program level are too complex. They need to be simplified, generalized, but kept specific enough for students to understand the competencies they acquire based on them.
3. Some learning outcomes at the course level are not measurable. Also, some are too complex. Learning outcomes at the course level need to be revised to be measurable, and to simplify them, it is necessary to use the fact that higher-level learning outcomes in Bloom's taxonomy imply achieving lower-level learning outcomes.
4. Some syllabi refer to courses that are not related at all to the study program. This indicates a lack of care for the syllabus. All interested stakeholders must be aware of the need to take care of the syllabi.
5. Prepare and implement formal procedures to ensure syllabus management process and harmonization process of learning outcomes of courses and study programs.
6. Use the participation in the EU project "Implementation of the CROQF in professional computer studies" to apply CROQF methodology in other study programs.
7. In order to ensure a continuous process of adapting learning outcomes to the profession requirements, it is necessary to establish and implement appropriate procedures that will formalize the collection of professional requirements and their use in reviewing learning outcomes.
8. Continue to strongly encourage the further work of the Economic Council.

### Quality grade

Minimum level of quality

## **2.3. The higher education institution provides evidence of the achievement of intended learning outcomes of the study programmes it delivers.**

### Analysis

The syllabi courses listed examination methods. It is also stated which group of learning outcomes is checked in which way. However, it is not clear from the presented examples of exams which learning outcome is checked by which part of the exam.

The syllabi also state that attendance at classes is used in student scoring, and thus this scoring is included in the formation of the final grade. It is not clear which learning outcome can be assessed by attendance. At the meeting with students and alumni, it was

determined that their mandatory attendance at classes as a condition for taking the exam and including attendance in the final course assessment is a major shortcoming of the study program. They also noted that some teachers strongly resent their absence from classes. Students also expressed dissatisfaction with the fact that some teachers do not adhere to the method of assessing learning outcomes that they presented to students in the introductory lecture.

The SER does not clearly state the procedure for taking the course, and the Rulebook on Grading is not publicly available through the official website of the HEI. Therefore, it cannot be determined with certainty whether a student should retake all the learning outcomes during the exam, even though he/she passed some during the classes.

From the example of the final thesis, a disproportion can be noticed in relation to its theoretical and practical-professional part. In conversations with teachers, it was found that they strive to ratio 50:50. Since these are professional studies, this scale should be higher in favour of the practical-professional part of the final thesis.

The SER provides an example of the results of a survey conducted among alumni. One general question is presented, from the answer of which it is difficult to draw conclusions that can be the basis for improving the teaching process.

In a meeting with teachers and external lecturers, it was found that they improve the teaching process but based on informal information received from students.

There is no formal procedure and its implementation that will ensure continuity in improving the teaching process based on achieving learning outcomes.

### Recommendations for improvement

1. In all examination methods, it is necessary to clearly determine which part of it checks which learning outcome.
2. Inclusion of class attendance in the course final grade (even in the condition of taking the exam) is not a good practice, and this was expressed by the students themselves. It is suggested that instead of attending classes, students be given certain activities (e.g., assignments, etc.) that would also check the achievement of learning outcomes.
3. If the student has acquired the conditions for taking the exam, it is desirable that the student is not re-examined of the passed learning outcomes.
4. Ensure that teachers adhere to the methods of checking the learning outcomes presented to students in the introductory lecture.
5. Final thesis should contain more practical-professional part and less theoretical part. Some faculties have a prescribed ratio of practical-professional part and theoretical part to 60:40. It is definitely recommended that this ratio be even

higher. It is proposed to the HEI to formally prescribe the ratio of practical-professional and theoretical part of the final thesis.

6. Conduct surveys that will have well-defined questions whose answers will be the basis for improving the teaching process
7. Define and implement a formal procedure that will ensure continuity in improving the teaching process based on achieving learning outcomes.

### Quality grade

Unsatisfactory level of quality

## **2.4. The HEI uses feedback from students, employers, professional organisations and alumni in the procedures of planning, proposing and approving new programmes, and revising or closing the existing programmes.**

### Analysis

From the meetings with the management, the quality committee, the vice dean for teaching, external lecturers, alumni and external stakeholders, it can be concluded that different stakeholders participate in the development of study programs. An economic council has also recently been established.

Yet this participation is based on informal channels of communication. In order to ensure quality and continuous collection of information necessary for the development of study programs, it is necessary to establish and implement a formal procedure.

During the meetings, some improvements were proposed, such as increasing the number of hours for internships, maintaining internships throughout all years of study, assistance in finding internships, application of modern technologies in the study of Informatics, introduction of courses on basic economics and methodology of scientific and professional work, more online classes, exclusion of compulsory attendance, organization of a student restaurant and conducting graduate professional studies.

From the meetings with the management and external stakeholders, it is evident that the HEI in its development uses information obtained from the county and the city, but also from business community. All representatives of external stakeholders expressed their readiness to participate in the Economic Council.

During the meeting, the participants expressed their interest in new study programs as well as graduate professional studies as a continuation of existing undergraduate studies.

The HEI has the latest versions of its study programs published on its website, but it is not clearly stated in which semester which course is being delivered.

The syllabi of the course also state the history of their update with a brief description of the change. From the meetings with the Quality Committee and the Vice Dean for Teaching, it was determined that the teachers themselves propose changes, but in an informal way. It is desirable to have a formal procedure that would allow recording the reasons for the change, the proposal of the change and the analysis of the expediency of the change.

### Recommendations for improvement

1. Define and implement a formal procedure for collecting information necessary for the development of study programs.
2. Strengthen the further work of the Economic Council.
3. Consider and adopt the proposals made during meetings with various stakeholders such as: increasing the number of hours for internships, maintaining internships throughout all years of study, assistance in finding internships, application of modern technologies in the study of Informatics, introduction of courses on basic economics and methodology scientific and professional work, more online teaching, analyse exclusion of compulsory attendance, where appropriate.
4. Analyse the possibility of conducting graduate professional studies as a continuation of existing undergraduate studies.
5. In the description of the study program on the website clearly show in which semester which course is delivered (with a display of basic information about the course such as the number of ECTS, type of teaching, etc.)
6. Establish a formal procedure that will enable the recording of the reasons for the changes, the proposal of the change and the analysis of the expediency of the change of both the study program and the courses themselves.

### Quality grade

Minimum level of quality

## **2.5. The higher education institution ensures that ECTS allocation is adequate.**

### Analysis

The HEI has developed an ECTS calculator to help teachers specify ECTS credits. The HEI also conducted a survey whose results are presented in a SER. However, the questions presented are too general for the answers to be used to draw conclusions about the

ECTS workload in individual courses. There is no prescribed procedure for conducting a survey on the ECTS workload of students, which will enable the continuity of the process of harmonizing ECTS credits with the actual student workload.

At the meeting with the students, it was determined that they were not familiar with the results of the conducted surveys and the measures taken.

From the syllabus of the course, it can be concluded that students have practical teaching. It is also evident that there are ways to check learning outcomes that test practical knowledge.

At the meeting, the students expressed the view that they wanted more practical teaching.

### Recommendations for improvement

1. Surveys for collecting information on ECTS workload should have well-defined questions whose answers will be the basis for making decisions on ECTS workload at the level of an individual course.
2. Establish and implement a formal procedure for harmonizing the ECTS workload with the actual student workload.
3. Ensure that students are informed about the results of the conducted surveys and the measures taken or changes that have been implemented.
4. Analyse the possibility of even greater involvement of practical teaching.

### Quality grade

Minimum level of quality

## 2.6. Student practice is an integral part of the study programmes.

### Analysis

All study programs include student practice with an ECTS load of 6 ECTS (Informatics and Transport Logistics) and 5 ECTS (Operational Management). The student practice lasting 160 working hours is required for all study programs, which is inconsistent and not in accordance with the value of ECTS credits (from 25 to 30 working hours) as prescribed by the Croatian Qualifications Framework Act.

The HEI from 2020/2021 began signing cooperation agreements with employers. Consequently, the number of signed contracts is extremely small.

The HEI has established a procedure according to which student practice is conducted. A survey of employers on student practice has begun from 2020/2021. The HEI presented the result of a survey completed by 38 students in the period from January 4th to

January 30th 2021. It is not clear how information collected from the surveys related to the practice will be used.

At meetings with alumni and external stakeholders the following proposals have been identified: increase the number of hours for student practice, organize student practice every year, and help students find practice. It should be emphasized that one of the recommendations of the previous re-accreditation was to increase the hours of student practice.

There is no student practice course in syllabi.

From the presented examples of student practice diaries, it is evident that students do not keep a day-to-day diary of work (students compile a summary). It is desirable that the student practice diary consists of a work description for each individual working day.

### Recommendations for improvement

1. Significantly increase the number of agreements with employers, which would be the basis for student practice.
2. Increase the number of hours of student practice (Take into account the specifics of part-time students.). Take care of how many ECTS credits the practice will have, given the value of one ECTS (25 to 30 working hours).
3. Try to organize student practice every year. Take into account the specifics of part-time students.
4. Provide assistance to students in finding student practice.
5. Establish and implement a formal procedure for surveying and applying the collected information in increasing the quality of student practice.
6. Define a syllabus for student practice.
7. Include in the student practice diary a work description for each individual working day.
8. Use contacts with alumni to provide new opportunities for student practice.

### Quality grade

Minimum level of quality

### III. Teaching process and student support

**3.1. Admission criteria or criteria for the continuation of studies are in line with the requirements of the study programme, clearly defined, published and consistently applied.**

#### Analysis

From the provided Rulebook on Studying, list of requirements published on the HEI's website and the conversations with the students it is evident that the criteria for admission of studies are publicly available and consistently applied. The HEI's criteria for admission of applicants who finished the State Matura exams are published on the [www.postani-student.hr](http://www.postani-student.hr) and, based on the tables 3.2 of the Analytic supplement, ensure the selection of candidates with appropriate prior knowledge. Applicants without the State Matura exams who completed their secondary education before the year 2010 or outside of Croatia are admitted based on their grades and the entrance exam results, examples of which are available on the HEI's website. The procedure for recognising prior learning is also regulated by the Rulebook on Studying and allows applicants recognition of passed exams from other study programme or other HEIs. The criteria for continuation of studies are based on the exam results and, consequently, on the number of ECTS points awarded so far.

#### Recommendations for improvement

1. Analysis of students' performance on the study programmes needs to take into account the results of State Matura exams and the grades from secondary education to support the selection of appropriate admission criteria.
2. Introduce a procedure for assessing students' motivation to gather information about student dropouts.
3. Make the Rulebook on Studying publicly available on the HEI's website.

#### Quality grade

Satisfactory level of quality

**3.2. The higher education institution gathers and analyses information on student progress and uses it to ensure the continuity and completion of study.**

#### Analysis

In the syllabus of the course, the ways in which students are assessed are described, and the teacher himself presents them in the introductory lecture. At the meeting with the

students, it was determined that some teachers did not adhere to the described methods of assessment.

Based on the SER, it can be concluded that data on student progress are collected regularly throughout the semester, and the presented examples of the report show that the collected data are analysed.

The SER shows examples of reports related to the pass rate of courses, pass rate from one year of study to another, the number of graduates and the number of dropouts. It is not clear how the collected data was further used or what actions were carried out on the basis of the collected data.

### Recommendations for improvement

1. Ensure that teachers adhere to the assessment methods described in the syllabi of the course.
2. Establish and implement a procedure that will enable the recording of actions taken on the basis of collected and analysed information on pass rate, the number of graduates and the number of dropouts.

### Quality grade

Minimum level of quality

## 3.3. The higher education institution ensures student-centred learning.

### Analysis

Based on the SER, meetings with teachers, external lecturers and students, visits to classes and laboratories, it was determined that the HEI supports various methods of teaching.

In meetings with teachers, external lecturers, and students, it was found that students are placed in situations where research-based learning, problem solving, and critical thinking are required.

The students stated that there are no group works in the first year of study.

From the SER and examples of documents, it is evident that there are formal procedures according to which: a student survey is conducted, the work of assistants is monitored and the work of fellow teachers is evaluated. However, it is not clear how the information gathered is used in adapting teaching methods. The question is also whether information is collected at all - for example, on the example of a document evaluating the work of a fellow teacher, no observations are made at all.

The HEI organizes classes in the afternoon and thus makes it available to part-time students. Consultation dates and exam deadlines are organized similarly. The teaching process is also adapted to students with disabilities.



In the teaching process, teachers use various technological solutions such as the e-learning platform Moodle, Office 365 and MS Teams. The SER also mentioned the possibility of using teaching materials for learning Oracle technologies within the Oracle Academy, but at the meeting with study heads, it was found that they are not familiar with this possibility.

In meetings with teachers, external lecturers and students, it was found that students work on group projects in which they are encouraged to engage. Student independence and responsibility is also supported by the Rulebook on the Disciplinary Liability of Students and the Code of Ethics.

### Recommendations for improvement

1. Introduce work on group projects from the first year of study.
2. Clearly connect the feedback collected through the student survey, monitoring the work of assistants and evaluating fellow teachers with the adjustment of teaching methods.
3. Determine the situation with the Oracle Academy and, if possible, continue further cooperation.

### Quality grade

Satisfactory level of quality

## **3.4. The higher education institution ensures adequate student support.**

### Analysis

The HEI has procedures for student support in student learning and progress, but they are not formalised and students are not informed of their existence. There is no career centre, but the head of practical work programme plays its role in keeping track of the career opportunities and students' interests. Students are offered psychological counselling and support in outgoing and incoming mobility, as well as proper support in student administration services. From the conversations with the students, it is evident that students are not informed of the possibility of psychological and career counselling and the possibilities of support for students with learning difficulties and disabilities, and are not familiar with the foreign exchange support and procedures, although the HEI provides such support. Despite the lack of permanently employed staff the HEI provides adequate student support mostly through their student office. Although, with the increasing number of new students the HEI may not be in a position to provide sufficient support to its students in the near future. The HEI provides new students with information packages which contain basic information about their

obligations, examination criteria and student support. Students are offered consultation hours with the teaching staff and they can contact their teachers using different means of online communication.

#### Recommendations for improvement

1. Properly inform students of the possibilities of student support.
2. Establish a career centre to provide students with necessary guidance and counselling.
3. Hire additional non-teaching staff to provide appropriate and higher quality student support in the near future.

#### Quality grade

Minimum level of quality

### **3.5. The higher education institution ensures support to students from vulnerable and under-represented groups.**

#### Analysis

Students with disabilities are offered various means of support, such as the adjustment of examination process and financial support, which is regulated by the Rulebook on Studying. From the official visit it is evident that the HEI's facilities are not adjusted for students with disabilities, but the management is aware of the problem and they make every possible adjustment for such students. Exams for such students are oral and are held at the ground floor of the building, which is accessible through the rear entrance that has a ramp. Students with learning disabilities such as dyslexia can have their written exam's font size and type adjusted and have the possibility of extended examination period. Although the system of support for students with disabilities is in place, students are not informed about the procedures and actions they need to take to use it.

#### Recommendations for improvement

1. Inform students about the possibilities of support for the students with disabilities.
2. Plan the adaptation of the new building to make all parts accessible to the students with disabilities.

#### Quality grade

Satisfactory level of quality

### **3.6. The higher education institution allows students to gain international experience.**

#### **Analysis**

According to the Self-evaluation report and Analytic supplement to Self-analysis, as well as per the meetings conducted with management, quality assurance committee and table 3.6 of the ASTS, it is evident that there were no students participating in international mobility. The total of incoming and outgoing mobility is zero (0) for the past 5 (five) years. In such circumstances it is clear that the management and other employees working in student's office as well as the quality assurance committee did not put enough effort to encourage students to international mobility. As evident from the SER of HEI as well as from the meetings with management, Erasmus mobility and other international cooperation in sending students abroad or receiving some from other HEI, was not one of the primary activities. The reason for that is found in HEI's many vital problems explained in other standards (such as lack of internal teachers, lack of internal staff, lack of financial and operational resources, transition of ownership, etc).

The HEI has reported in SER their understanding of importance of globalisation and internationalisation of education and accordingly only recently established the Erasmus coordination by assigning one part-time (50%) teacher as a head of Erasmus. During the meeting with Erasmus coordinator, it was found that it is all new to the HEI and the process of implementation will be done in the near future, but so far it was not in function. Although the institution signed contracts with 4 institutions (SER; Bulgaria, Turkey, Slovenia), there is no activity or evidence of implementation, but only the contracts signed.

The management of the institution is highly motivated to implement Erasmus+ mobility and has offered the possibility to students, but not in a systematic and supportive way. But it was said that one of the goals of the future development will be directed towards its implementation.

Since there was no student's mobility in the past 5(five) years, there is no evidence of the support to students in application process and the realisation of exchange programs regarding collection of data or acquired competencies for work in an international environment.

#### **Recommendations for improvement**

1. Implement and monitor implementation of Erasmus and Erasmus+ international exchange.
2. Train and support Erasmus coordinator in order to be competent in the given role, together with other staff (teachers and administration).

3. Promote Erasmus possibilities to students on a regular basis.
4. Create receiving mobility environment and promote the possibilities to other HEI abroad.
5. Sign more contracts with international HEIs, establish cooperation and promote the Erasmus possibilities to students regularly in various forms and using various media and promotional tools.
6. To increase the number of foreign guest lectures which can contribute to students' competences to work in the international environment.

### Quality grade

Unsatisfactory level of quality

### **3.7. The higher education institution ensures adequate study conditions for foreign students.**

#### Analysis

The HEI is currently not able to ensure the favourable conditions for studying of foreign students and the result of the incoming mobility shows the lack of students and non-existence of incoming mobility in the past 5 (five) years. Formally, the HEI would assist students in the application process if there was any interest, but due to its inactivity in the past period, lack of strategic orientation to Erasmus exchange and lack of internal resources, there is no evidence of implementation of any incoming mobility program. Since there were no students involved in incoming mobility there is no evidence on the feedback information on satisfaction and the needs of the foreign entities. Consequently, most of the courses are not provided in English or foreign language and the curriculum can't be adequately followed in foreign language (some courses are published on the website as being available in English, but the realisation of such activity has not been noticed or evident).

The data published on the website of the HEI is outdated, there is an Erasmus call from the year 2017 and no other recent data is published. The HEI has realised the importance of redesigning the website and promoting Erasmus mobility more and continuously, but it needs to be updated with activities once taken. The Erasmus coordinator is completely new with no experience in such activity, and did not yet fully start the implementation and operation of the Erasmus activity, although there is a strong motivation of management to support its role and operations in the future. According to the previous reaccreditation recommendation, this was one of the recommendations which is not yet fulfilled and reasons for that could be the same as in

the standard 3.6 where the lack of internal staff and financial issues are evident, teachers and administration workload as well as ownership transition, change of internal staff due to their retirement age, etc. Amongst other reasons for not being able to attract incoming students for Erasmus, management considers Croatia as the expensive country for students. This may be a reason if compared to some eastern European countries, but not compared to western and northern European Erasmus members and other that are part of Erasmus+. In conclusion, the effort and activities of HEI in regards to Erasmus were not sufficient and not enough attention is given in the period from the last reaccreditation to it.

### Recommendations for improvement

1. Strong recommendation to approach to the Erasmus+ mobility seriously by enforcing implementation of the programs.
2. Support the development of Erasmus coordinator role and her competencies.
3. Enlarge the number of contracts with international HEIs.
4. Create syllabi in English language and publish them on the website, link them to the study programs and continuously invite foreign students to incoming mobility.
5. Promote Erasmus on the website by redesigning the website to be more updated with Erasmus opportunities, attractive to students, but also by using other modes of promotion and different media.
6. Get involved in social media marketing in order to attract more international students.
7. Prepare syllabi in foreign language for all study programs and revise the previous ones to be in line with learning outcomes, its testing and evaluation.
8. Encourage internal and external teachers to teach in English and provide courses for them to improve their teaching in English language.
9. To promote Erasmus during their classes and cooperation with other international institutions as well to improve their teaching skills and foreign language knowledge to empower the courses.
10. Encourage the students Council to promote the incoming and outgoing mobility on all levels of their activities (internally and externally, using official HEIs network but also their Council network and social networks).

### Quality grade

Unsatisfactory level of quality

### **3.8. The higher education institution ensures an objective and consistent evaluation and assessment of student achievements.**

#### Analysis

The criteria for evaluation and grading are available in the syllabi, and from the conversations with the students we can conclude they are aware of them. Students were introduced to them on their first lecture, and they are published in their internal Eduneta and Merlin platforms. However, before we requested the syllabi, they were not available on the HEI's website, even though it was mentioned in the SER.

Some of the subjects also included student's attendance as a part of the final grade, which in no way evaluates subject's learning outcomes. We were assured it is actually the assessment of student's activity during lectures, but that is not mentioned in some of the syllabi and doesn't provide clear grading criteria.

Students are able to get insights into their exams, but in most cases the process is initiated by the students and there is no set schedule for it. Students do not get individual feedback on the evaluation results and guidelines for learning unless they request it. There are established procedures for accommodating students with disabilities during the evaluation procedures, but students were unaware of them.

The HEI conducts peer-review lecture visitations, which shows their initiative in improving the learning process, but there is no evidence of notes made during such visits, which was confirmed by the management. The peer-review lecture visitations are formalized and are used to monitor the quality of lectures. Although, there is no evidence of any improvements made based on them and the reports don't contain any useful information.

#### Recommendations for improvement

1. Re-evaluate the grading criteria of the subjects.
2. Encourage teachers to provide guidelines for learning to students with poor grades.
3. Make notes of observations during the peer-review lecture visitations on which improvements of the learning process can be based.

### Quality grade

Minimum level of quality

### **3.9. The higher education institution issues diplomas and Diploma Supplements in accordance with the relevant regulations.**

#### **Analysis**

Upon the graduation, students are issued Diploma and Diploma supplements. Both documents contain obligatory information. Diploma is issued in Croatian language. Diploma supplement is available in Croatian and English language, and is supplied free of charge.

#### **Recommendations for improvement**

1. The diploma supplement can be extended with additional information, such as learning outcomes at the individual subject level, or at the study level.

#### **Quality grade**

Satisfactory level of quality

### **3.10. The higher education institution is committed to the employability of graduates.**

#### **Analysis**

Student employability analysis is conducted informally, through personal interviews with students and their employers. Previously available analysis of the Employment Service, with the introduction of the GDPR provision is no longer possible and it is necessary to keep in mind this limitation. In the conversation with external stakeholders, we have received information that the employees of the institution participate in the work of the county and city bodies that analyse the situation and needs of the labour market, and that the information is the basis for planning enrolment quotas. Contacts with alumni are based on personal contacts, and feedback from alumni students was collected once. The new space, which is currently being renovated, should enable more intensive cooperation with alumni students, about which the management of the institution informed the members of the panel. Processes related to the student practice mainly deal with administrative processes and lack of career counselling for students.

#### **Recommendations for improvement**

1. Formalize the process of gathering information about alumni students and their careers in order to propose changes to existing processes and programs based on information about their employability.

2. Regularly collect feedback from alumni students.
3. Continue good cooperation with county and city authorities in the field of labour market.
4. Establish a procedure or department that will provide better connections with employers and career counselling for students and that will connect students with employers based on their aspirations.

### Quality grade

Satisfactory level of quality

## IV. Teaching and institutional capacities

### 4.1. The higher education institution ensures adequate teaching capacities.

#### Analysis

The number and qualification of teachers are at the very minimum when it comes to adequate realisation of the study programs and acquiring the foreseen learning outcomes as well as their professional and scientific performance/activity. The number of fully employed teachers is 10 in total, but not all in 100% employment status. There are 3 of them on 50% of the employment which makes the total of 8,5 of teachers fully employed. At the same time, most of them have other duties and responsibilities at the HEI. Amongst fully employed teachers there is a dean, vice dean for teaching and vice dean for international cooperation and projects, Erasmus coordinator (50%), practical training officer (50%) and physical education teacher (50%). One teaching assistant is also fully employed. Only 35% of the teaching process is covered and carried out by internal teachers while 65% by external associates. The vice dean for teaching is recently appointed and most of the teaching staff is new, since the previous group of teachers retired. According to their norm hours of teaching and other duties they are responsible for, there is a lot of effort to manage the institutional goals and fulfil all teaching requirements. It is obvious that there is a strong commitment, but realistically it is not sufficient to achieve excellence and all strategic goals of the HEI in such limited teaching capacities. Therefore, the HEI heavily depends on the external teachers.

The elections to teaching grades is done according to Croatian laws and regulations; there are 2 college professors, 3 senior lecturers, 5 lecturers and 1 assistant. The ratio of students and permanently employed teachers at HEI is adequate and amounts 21,79. The teaching workload is harmonised with the rules and laws, acts and competent bodies, collective bargaining agreements, but the major problem is detected in the fact



that most of the fully employed teachers are not fully committed to teaching but also in the management, coordination and student's office work. The management is aware of the situation and emphasised their main obstacles and weaknesses as not being able to employ enough teachers. The reasons are; primarily no sufficient financial sources and secondary no motivation for teachers to come and work in Krapina as it is a small city and community but also the facilities and work environment is very modest and not offering enough incentives to growth and development. On the other hand, fully employed teachers are motivated and there is a strong enthusiasm in their work attitude and willingness to develop the HEI. Therefore, the expert panel strongly recommends to grant HEI the resources and work on self-funding projects in order to recruit more internal teachers and to divide duties and workload appropriately. The teachers are qualified for the subjects they teach and they do participate in professional development, but their publishing activity is very low due to above-described overall load issues. The commitment of management and their personal effort help in maintaining positive and promising working environment and it is also evident from the role of dean who is active and committed, but unfortunately the sources available to dean are very limited and modest.

#### Recommendations for improvement

1. In order to ensure the quality of realisation of the study programs and the realisation of foreseen learning outcomes it is necessary and strongly recommended to hire more internal teachers.
2. To achieve the goal of recommendation number 1. it is compulsory to get financial resources from the owners (former owners' debts to be covered as well as from the Ministry as a current owner).
3. The management and internal teachers are advised to participate in projects in order to gain self-funding.
4. The source of self-funding could be also earned through development and delivery of lifelong learning programs. So far, that activity is not sufficient and currently not existing.
5. The HEI must find sources to employ more internal teachers and divide duties (teaching, administration, professional development, projects, etc.) in a sustainable and long-term way/perspective to ensure quality and success on the long run.

#### Quality grade

Minimum level of quality

## **4.2. The higher education institution ensures appropriate quality of external associates.**

### **Analysis**

External associates of HEI are of very high quality; both in their experience in teaching (teaching grades) and relevant work experience. There was more than 70 of them and now management confirmed the cooperation with 56 external associates. Majority of them are employed in reputable HEIs in Croatia and have a long-term cooperation and committed collaboration with the HEI. The majority of the expertise and subjects/courses are delivered and thought by external associates. The relationship and respect are very high, as well as student's satisfaction with external associates. External associates are also mentors and co-mentors in final papers of students. Due to the lack of internal teachers the HEI depends on external associates in the execution and delivery of the study programs. External associates include their newest research, trends and findings in the teaching process. The 65% of the teaching is covered by external associates.

### **Recommendations for improvement**

1. Continue to maintain good relationship with external associates and utilise their expertise in improvement of study programs, learning outcomes and quality of teaching.
2. Establish and maintain cooperation in projects with external associates and their HEIs in order to get more self-funding sources and involve externals in establishment and support of lifelong learning programs. Their expertise might be of a great benefit to internal employees and the HEI.
3. Establish an external lecturers' representative in order to unite external lecturers and have continuous cooperation, exchange of information, regular meetings, etc.
4. Expand the collaboration with external associates from the business sector in order to include them in the teaching process and to enhance the teaching process with newest trends and findings from the labour market.

### **Quality grade**

High level of quality

### **4.3. Teacher recruitment, advancement and re-appointment is based on objective and transparent procedures which include the evaluation of excellence.**

#### **Analysis**

The HEI is in line with all procedures of employing teachers in regards to legal framework and internal acts, but the number of internal teachers and their recent employment is limited in both perspective; it is not easy to select the best teachers since there is not competition in the area of Krapina and there are not many who apply for jobs and are willing to work there due to the size of the city and community. Many people tend to find jobs in Zagreb and not many are willing to come from Zagreb and live in Krapina. The selection process is in line with the laws and regulations but there is no competition and choice when it comes to employment of teachers. Consequently, it is not possible to select the best candidate for the position and the selection is limited to small number of applicants. The advancement of the teachers in the teaching grades is done according to law and regulations of HE in Croatia, but due to low number of internal teachers it is not applied often. The average age of employed internal teachers is from the age 45,5 to 54 which would be adequate considering experience and quality, but there are no younger teachers (except one assistant, age 36) who would grow and learn from senior and experienced ones. There are numerous external associates with average age from 55 to 79 age groups which indicates the seniority of external associates, their experience and competencies, but also a possible future threat in perspective of lack of younger teachers under mentorship of seniors. The future of the HEI should consist of continuous improvement of teachers and development of younger teachers who will be mentored by senior and experience teachers. The procedures of HEI do contain the evaluation and rewarding of excellence in teaching and other indicators such as projects involvements, mentorship, publishing activity etc., but due to many other problems in terms of the lack of staff, lack of teachers and financial funds, limited space, etc., those procedures are not implemented in practice. There is a stimulative bonus of 20% to be given to teachers based on their excellent performance, but it exists only formally as a formal act, it is not applicable in the practice yet. Management is aware of the situation and would like to be able to implement it as soon as the financial situation improves, as well as when the new employment opportunities will be realised. Considering the current situation at the HEI it is evident that the minimum standards are applied here and there is a room for improvement which can only happen when other terms and problems at HEI are resolved.

#### **Recommendations for improvement**

1. Continue creating motivating environment by empowering teachers to participate in more projects, more self-funding programs and activities in order to have sources to reward them for their excellent results.

2. Utilise good relationships with external associates and external stakeholders (domestic and international level) in order to create prosperous academic, project and professional society, with external funding possibilities (local community, business sector, EU funds, international relations).
3. Continue the effort to succeed in closing debts of the HEI, to solve the financial problems and get funds from the previous and current owners in order to pursue the strategic goals, improve the whole operation and stimulate academic excellence on all levels.

### Quality grade

Minimum level of quality

#### **4.4. The higher education institution provides support to teachers in their professional development.**

### Analysis

The HEI does support and offers possibility to advance the teachers' competence according to their financial capability and internal competencies, which are limited in both aspects; lack of financial resources due to financial problems and lack of internal teachers and internal staff who would systematically organise and provide trainings or outsource trainings and other forms of support for teachers in their professional development.

There is a budget of 6000 kn per teacher for participation in conferences or publishing activity. There is evidence of teachers applying and being granted the funds. However, it is not sufficient. Teachers do have opportunity to participate in mobility but none of them has participated in Erasmus mobility yet. The reason for that is not only in a limited number of teachers, their workload and other duties at HEI, but also in low involvement and lack of promotion of Erasmus mobility program. The management is aware of the problem and insists on the short-term mobility instead of long term, but there is no evidence of any mobility so far. With such infrastructure of small number of employees being involved in teaching process but also other functions at HEI it is impossible to replace them while on mobility exchange and networking.

### Recommendations for improvement

1. Continue to insist on finding funds and solve the financial issues in order to be capable of fulfilling the requirements of teachers' professional growth and development.

2. Implement and strengthen Erasmus mobility and other international mobility and networking in order to find sources to support teachers' professional development.
3. Participate in EU projects, other local and international projects.
4. Cooperate more with external stakeholders and create profitable relationships where all can benefit from the cooperation.
5. Research market and find out where the competencies of the internal teachers could be profitably utilised and bring prosperity to them and the HEI.
6. All above recommendations should focus on strong involvement and commitment to encourage the HEI to get more self-funding financial sources as well as free equipment, tools, labs, etc. This is the way to ensure long term sustainability and prosperity, beside financial funds and support from the owners (previous and current).

### Quality grade

Minimum level of quality

**4.5. The space, equipment and the entire infrastructure (laboratories, IT service, work facilities etc.) are adequate for the delivery of the study programmes and ensure the achievement of intended learning outcomes and the implementation of professional and/or scientific activity.**

### Analysis

The space, equipment and the overall infrastructure of the HEI satisfy the minimum requirements for implementation of the study programs. There are lease contracts with Krapina secondary school and the HEI conducts its operation within the same building /sharing the space and leasing it from Krapina secondary school. It would be much better for the purpose of achieving quality and excellence in education if there would be independent building and space available for HEI needs. The total space for HEI is 1.609 m<sup>2</sup>, divided in amphitheatric hall with 165 and 80 seats, 12 classrooms with 30-40 seats each, small cabinets for teachers connected to labs. There are 3 labs; industry lab 4.0, space intelligence lab and business analytics lab, totalling 81 m<sup>2</sup>. There are 23 new computers in labs while the total number of computers in classrooms available to 239 students is 121. The new lease contract is signed with Croatia insurance where there is 553 m<sup>2</sup> of space. This is adding value to the space and equipment capacity in terms of ensuring the space for non-teaching staff, library and reading room, as well as dean's office, student's council and alumni.

### Recommendations for improvement

1. Continue with improving space and equipment of the classrooms, teaching cabinets and labs.
2. Expand office and facilities space in the new building - as per the tour given by management where the expert panel was shown new office space, students' council space and conference room (meeting room).
3. Strong recommendation in the long term would be to look for a building where the HEI would be alone, independent and where there would be enough space, equipment and other facilities necessary for all staff and students.
4. Students' restaurant would be a priority as an additional investment in infrastructure because they complain on the lack of a nearby restaurant.
5. In the future projects with EU funds the HEI may consider building student facilities such as a dorm with accommodation, in order to attract more students but also to be able to accommodate Erasmus mobility students, teachers and international cooperation with other institutions.

### Quality grade

Minimum level of quality

**4.6. The library and library equipment, as well as access to additional resources ensure the literature necessary for ensuring high-quality of study and scientific and teaching activity.**

### Analysis

Until now, the library facilities were outsourced with contracts with Krapina secondary school and City library. The facilities of library were not sufficient in the past and currently, and the initiative to create own library resources was one of the requirements of previous reaccreditation. The HEI is now in the process of equipping the library sources and it will be implemented with the new building and new space allocated for it. This is the evidence of good practice which will soon be realised. The HEI signed the contract with external librarian but plans the full-time employment. The sources of online literature and online data bases will be managed and improved with the new head of the library. It is all in the process of implementation.

### Recommendations for improvement

1. Establish own Library with enough books, resources and literature sources.

2. Encourage students to use library resources and read books and other literature.
3. Create database and provide training for students on how to research different professional and scientific databases and publications.
4. Establish an online repository of students' final theses.

### Quality grade

Minimum level of quality

## **4.7. The higher education institution rationally manages its financial resources.**

### Analysis

The HEI has gone through the process of ownership transition from private mixed ownership (Krapina Zagorje County, City of Krapina, Municipalities Radoboj, Đurmanec, Petrovsko, Hum na Sutli, Public open University Kotka, Krapina, companies OMCO d.d., Hum na Sutli, Presečki group d.o.o., Krapina, Strahinjčica trgovina d.o.o., Krapina, Krakom d.o.o., Krapina, Pekom d.o.o. Krapina) to public (Ministry of Science and Education) in 2019. Since then, the HEI is in a difficult financial situation because there is a debt to be paid to them in the amount of 2.5 mil. kunas, by previous owners. In terms of financial issue, it affected the HEI on many levels; not having enough resources to buy enough books, to support development of the HEI, to support professional and scientific activity and to hire enough internal lecturers and administrative staff. As a consequence, there is a strong financial pressure on the management, lack of resources and limited possibility to grow while at the same time the Covid-19 pandemic influenced the former owners in a way that they do not have sufficient funds to pay the debt. The financial situation of the HEI reflects on the overall quality of the operation of HEI. The Ministry of Science and Education, as a new owner, promised to support the HEI once the debt of previous owners is paid. Currently, there is a strong activity of management to solve the financial situation and there are negotiations with former founders and new founders and it seems that previous owners support the HEI and are willing to pay the due amount, but in the certain period of time.

The HEI does not have enough activity (due to lack of internal staff and resources) to secure self-funding through participation in bigger EU project and did not develop lifelong learning programs that could help secure funds from such internal activities. The financial situation is a serious problem. Once it is solved the HEI can invest in the future development of facilities, research and internal quality improvement.

### Recommendations for improvement

1. Strong recommendation to the management is to make all necessary steps and effort to ensure the payment of debt from previous owners by continuously dealing with previous owners and new owner. It is one of the vital elements of the future development and the basis of the institutional existence.
2. Take initiative in a search for additional funding through national and international projects.
3. Take initiative and work closely with industry/business sector in order to secure funds.
4. Participate in local community projects and secure funding additionally through common projects, trainings, workshops, lifelong learning, etc.
5. Utilise good relationship and networking with external teachers and their institutions in terms of proposing and participating in joint projects and other forms of cooperation.
6. Connect with external stakeholders in order to learn from their educational experience on how they managed and participated in the EU, national and other international projects and ensured the improvement of the infrastructure of their institutions (such as funds for students' dorm, restaurant, labs, equipment, computers, library resources, books, software, teachers' facilities, etc.).
7. Maintain good relationships with international partners such as University of Telecommunication and Post, Bulgaria and Royal Institute of Navigation, UK, with aim to propose, develop and participate in joint projects which can ensure additional funds and improve the financial situation of the HEI.
8. Motivate internal teachers and staff to develop trainings, courses and lifelong learning programs which will be commercialized in order to secure more funds for the HEI.
9. Continuously cooperate with Business and Technological Incubator of Krapina Zagorje County in order to establish new start-ups with students and work on the implementation of so-called University or High School Entrepreneurship. Recently it is a trend that HEIs become entrepreneurs and develop different prosperous businesses in order to reduce dependence on the Government or public funds and increase their own revenues.

### Quality grade

Minimum level of quality



## V. Professional and/or scientific activity

**5.1. Teachers and associates employed at the higher education institution are committed to the achievement of high quality and quantity of professional and/or scientific activity.**

### Analysis

The members of the expert panel had the opportunity to study the self-evaluation report and talk to the representatives of the HEI to get a comprehensive overview of the scientific and professional research activities of the institution. The analysis shows that members of the HEI have consistently published and participated in conferences over the last 5 years. The rate of activities is largely stable without a significant increase or decrease of the volume of scientific activities over the period of time taken into consideration.

The publications are a mixture of scientific and professional papers and partly national as well as partly international.

Some of the research activities were conducted by the members of the HEI alone, others were done in collaboration with partners in Croatia and the international community.

Looking at the thematical orientation of the scientific activities, one focal area is research in navigation or location systems on an international level in collaboration with institutions outside of Croatia.

The scientific activities have been conducted by several employees of the HEI with a strong focus on 2-3 members of staff and management.

Formal procedures to incentivize staff to publish or participate in research activities should be activated and lived.

The individual publications, conference participations and other research activities have been documented and can be made available.

Furthermore, the focus of the research activities as observed by the expert panel is very much technical oriented and as such in agreement with the requirements in the study course informatics.

Transport logistics as a study program is covering technical aspects as well as business aspects. Requirements in the study course transport logistics in terms of research are covered only if one looks at the technical aspects of logistics. Business requirements in transport logistics are not addressed by recent research activities as observed by the expert panel.

### Recommendations for improvement

1. Carry on with the existing research activities and intensify the existing international collaborations.

2. Establish procedures to encourage all and especially new and more junior members of the staff to become active in the fields of professional and scientific research. The recommendation includes considering to create career paths for young associates which encompass scientific achievements as well as further development in the field of teaching.
3. Deliberately focus on new research activities on subjects which serve the needs of the business aspects of transport logistics as well as the needs in the field of operational management.

### Quality grade

Minimum level of quality

## **5.2. The higher education institution proves the social relevance of its professional and/or scientific research and transfer of knowledge.**

### Analysis

The expert panel has been provided with an extensive overview of the participation of members of the staff on international conferences. Additional insight into this could be gained in the meetings with the management as well as with the external partners of the HEI.

Furthermore, the various activities of the HEI to participate in development activities of the county and the city of Krapina have been described in the self-evaluation report and could be discussed in various meetings with internal and external partners of the HEI.

Among others the HEI is participating in the business – Technological Incubator in Krapina.

Both international partners present at the online meetings – one from the Royal Institute of Navigation in the UK and one from the University of Telecommunication and Post in Bulgaria - expressed their appreciation of the collaboration with the HEI.

The various members of the local community including the representative from the city of Krapina as well as representatives from local businesses clearly expressed their recognition of the HEI as a crucial part of the further development of the region.

The exchange between the HEI and members of the local business community happens informally, driven by personal contacts.

During the assessment meetings with internal members of the HEI the expert panel members received the information that the existing contacts with the local business community, despite being not formalized, are representative of the overall local industry and cover the most important locally active companies.

Some of the contacts to the local business community are through the former founders of the HEI.

The expert panel members received oral evidence from the heads of the study programmes that recommendations for improvement of the syllabi from employers of graduates are taken into consideration and flow into the programs. A formal procedure for this process does not exist.

The participation in activities of scientific and professional organisations as well as the development of contacts into the business community is mainly carried out by a small group of members of staff and management.

### Recommendations for improvement

1. Continue with the collaboration within international scientific organisations. The recommendation in this area goes into creating structures to encourage the more junior members of the staff to share the burden and participate in the existing collaborations to guarantee a larger independence from the availability of individual staff members.
2. Intensify existing contacts and formalise the transfer of recommendations or business needs from local companies into the institution. The goal should be to constantly update the content of the study programs to the requirements of the employment market.
3. Investigate the possibility to establish professional-oriented research activities with local companies. Especially in transport logistics and operational management where opportunities for joint research exist. It could not only promote contact with local business but also help to address weaknesses in the overall level of research activities in the area of transport logistics and operational management. Carrying out final theses in conjunction with companies and working together more closely and with more formal requirements in the field of student practices can also be a tool to invigorate local professional research collaboration.
4. Intensify activities in the participation in the Krapina business incubator.

### Quality grade

Minimum level of quality

**5.3. Professional and/or scientific achievements of the higher education institution have been recognized in the regional, national and international context.**

### Analysis

The self-evaluation report and the discussions with the management and internal associates of the HEI gave the expert panel members an overview of the scientific achievements of the members of the institution. There is bilateral cooperation with an institution in Bulgaria and in the UK where representatives of those institutions attested the level and importance of the collaboration conducted.

Some members of the HEI are actively participating and holding offices and board positions in various local scientific organisations. Members of the HEI are consistently participating in national and international conferences.

The expert panel perceives the high level of commitment and participation of the staff members involved in the aforementioned activities. Nevertheless, the recommendation is to broaden the base of staff members being active in this area.

### Recommendations for improvement

1. Broaden the base of staff members being active in this area. The HEI should consider establishing an incentive scheme or a career development program which encourages junior members of staff to strive for academic excellence as well.
1. Pick out one (or two) field relevant to either of the study programmes to study courses and develop a strategy to achieve research excellence in a field of management or transport logistics, ideally an area which can be coupled with professional research activities in the region. Developing research capacities in the field of Transport, multimodal transport or the development of logistics hubs might be an area worthwhile considering.

### Quality grade

Satisfactory level of quality

## **5.4. Professional and/or scientific activities and achievements of the higher education institution improve teaching.**

### Analysis

The expert panel members could get an impression of the lecture room equipment and the research equipment available at the HEI during the onsite visit. The equipment is there and ready for use. Students get involved into several of the research projects. The representative from the UK partner organisation explicitly focused on the successful participation of undergraduate students in joint research projects.

Both partners from the UK and Bulgaria which participated at the online meeting with external associates commented on online lectures given to undergraduate students of the HEI.

The usage of business applications provided by the Oracle Academy does not take place. Although it is mentioned in the Self-evaluation Report that the HEI has become involved in the programme provided by the Oracle Academy the Expert Panel found out in the conversation with the HEI staff that the programme is not being carried out. There has been some mistake in this regard while preparing the self-evaluation report.

A formal procedure to encourage students to participate in research projects or to motivate all staff members to carry out research projects and to include students into those is not in place.

### Recommendations for improvement

1. Pursue the existing research activities with the existing international partners which were presented and discussed during the panel meetings. More students should be included and a more comprehensive transfer of methods and results of the research projects into the syllabus should be considered.
2. Evaluate the university programs of software companies like Oracle, SAP or Microsoft for potential usage in the study programs. This recommendation is not limited to the Informatics study program but encompasses Transport Logistics and Operational Management as well. Software packages from one of the big companies might open opportunities for professional activities with the local business community.
3. Establish a formal procedure to motivate internal associates to conduct research and integrate students into those research activities.

### Quality grade

Minimum level of quality

## **APPENDICES**

**1. Quality assessment summary - tables**

**2. Site visit protocol**

### *Quality grade by assessment area*

<i>Assessment area</i>	Unsatisfactory level of quality	Minimum level of quality	Satisfactory level of quality	High level of quality
<i>I. Internal quality assurance and the social role of the higher education institution</i>		<b>X</b>		
<i>II. Study programmes</i>		<b>X</b>		
<i>III. Teaching process and student support</i>		<b>X</b>		
<i>IV. Teaching and institutional capacities</i>		<b>X</b>		
<i>V. Professional and/or scientific activity</i>		<b>X</b>		

<i>Quality grade by standard</i>				
<i>I. Internal quality assurance and the social role of the higher education institution</i>	<i>Unsatisfactory level of quality</i>	<i>Minimum level of quality</i>	<i>Satisfactory level of quality</i>	<i>High level of quality</i>
1.1. The higher education institution has established a functional internal quality assurance system.		X		
1.2. The higher education institution implements recommendations for quality improvement from previous evaluations.		X		
1.3. The higher education institution supports academic integrity and freedom, prevents all types of unethical behaviour, intolerance and discrimination.		X		
1.4. The higher education institution ensures the availability of information on important aspects of its activities (teaching, professional and/or scientific and social role).		X		
1.5. The higher education institution understands and encourages the development of its social role.		X		
1.6. Lifelong learning programmes delivered by the higher education institution are aligned with the strategic goals and the mission of the higher education institution, and social needs.	X			



<i>Quality grade by standard</i>				
<i>II. Study programmes</i>	<i>Unsatisfactory level of quality</i>	<i>Minimum level of quality</i>	<i>Satisfactory level of quality</i>	<i>High level of quality</i>
2.1. The general objectives of all study programmes are in line with the mission and strategic goals of the higher education institution and the demands of the labour market.		X		
2.2. The intended learning outcomes at the level of study programmes delivered by the higher education institution are aligned with the level and profile of qualifications gained.		X		
2.3. The higher education institution provides evidence of the achievement of intended learning outcomes of the study programmes it delivers.	X			
2.4. The HEI uses feedback from students, employers, professional organisations and alumni in the procedures of planning, proposing and approving new programmes, and revising or closing the existing programmes.		X		
2.5. The higher education institution ensures that ECTS allocation is adequate.		X		
2.6. Student practice is an integral part of the study programmes.		X		

### *Quality grade by standard*

<i>III. Teaching process and student support</i>	<i>Unsatisfactory level of quality</i>	<i>Minimum level of quality</i>	<i>Satisfactory level of quality</i>	<i>High level of quality</i>
3.1. Admission criteria or criteria for the continuation of studies are in line with the requirements of the study programme, clearly defined, published and consistently applied.			X	
3.2. The higher education institution gathers and analyses information on student progress and uses it to ensure the continuity and completion of study.		X		
3.3. The higher education institution ensures student-centred learning.			X	
3.4. The higher education institution ensures adequate student support.		X		
3.5. The higher education institution ensures support to students from vulnerable and under-represented groups.			X	
3.6. The higher education institution allows students to gain international experience.	X			
3.7. The higher education institution ensures adequate study conditions for foreign students.	X			
3.8. The higher education institution ensures an objective and consistent evaluation and assessment of student achievements.		X		
3.9. The higher education institution issues diplomas and Diploma Supplements in accordance with the relevant regulations.			X	
3.10. The higher education institution is committed to the employability of graduates.			X	

### *Quality grade by standard*

<i>IV. Teaching and institutional capacities</i>	<i>Unsatisfactory level of quality</i>	<i>Minimum level of quality</i>	<i>Satisfactory level of quality</i>	<i>High level of quality</i>
4.1. The higher education institution ensures adequate teaching capacities.		X		
4.2. The higher education institution ensures appropriate quality of external associates.				X
4.3. Teacher recruitment, advancement and re-appointment is based on objective and transparent procedures which include the evaluation of excellence		X		
4.4. The higher education institution provides support to teachers in their professional development.		X		
4.5. The space, equipment and the entire infrastructure (laboratories, IT service, work facilities etc.) are adequate for the delivery of the study programmes and ensure the achievement of intended learning outcomes and the implementation of professional and/or scientific activity.		X		
4.6. The library and library equipment, as well as access to additional resources ensure the literature necessary for ensuring high-quality of study and scientific and teaching activity.		X		
4.7. The higher education institution rationally manages its financial resources.		X		

### *Quality grade by standard*

<i>V. Professional and/or scientific activity</i>	<i>Unsatisfactory level of quality</i>	<i>Minimum level of quality</i>	<i>Satisfactory level of quality</i>	<i>High level of quality</i>
5.1. Teachers and associates employed at the higher education institution are committed to the achievement of high quality and quantity of professional and/or scientific activity.		X		
5.2. The higher education institution proves the social relevance of its professional and/or scientific research and transfer of knowledge.		X		
5.3. Professional and/or scientific achievements of the higher education institution have been recognized in the regional, national and international context.			X	
5.4. Professional and/or scientific activities and achievements of the higher education institution improve teaching.		X		

## SITE VISIT PROTOCOL

### Education of panel members in virtual form

Tuesday, 9 <sup>th</sup> March 2021	
<b>11:55 -12:00 (CEST)</b>	Joining the ZOOM meeting via link
<b>12:00 – 15:00</b>	<ul style="list-style-type: none"> <li>• Presentation of ASHE</li> <li>• Overview of the higher education system in Croatia</li> <li>• Re-accreditation procedure</li> <li>• Standards for the evaluation of quality</li> <li>• How to write the Final report</li> <li>• Preparation for the meetings with HEI</li> </ul>

### Preparation of the Expert Panel members for the meetings with HEI in virtual form

Monday, 15 <sup>th</sup> March 2021	
<b>10:20 -10:30 (CET)</b>	Joining the ZOOM meeting via link
<b>10:30 – 12:00</b>	Preparation of the Expert Panel members for the meetings with HEI (discussion on the Self-evaluation report and supporting documents, writing open questions for the meetings)

### Preliminary site-visit of Expert Panel members to the HEI

Tuesday, 16 <sup>th</sup> March 2021	
<b>8:00</b>	Departure of the Croatian panel members to Krapina
<b>9:50- 10:00 (CET)</b>	Joining prof Wintermeyer to the ZOOM meeting via link
<b>10:00 – 11:00</b>	Meeting of Expert Panel members with the Dean and Vice-Deans
<b>11:00- 11:10</b>	<i>Break</i>
<b>11:10 – 12:10</b>	Meeting of Expert Panel members with the Quality Department
<b>12:10 – 14:00</b>	Document analysis
<b>14:00 – 15:30</b>	Working Lunch
<b>15:30- 17:00</b>	Tour of the Polytechnic (classrooms, specialised classrooms, IT classrooms,

	laboratories, library/reading room, student services) and participation in teaching classes
<b>17:00</b>	Return to Zagreb

### First day of re-accreditation in virtual form

Wednesday, 17 <sup>th</sup> March 2021	
<b>10:00 - 10:05</b>	Joining ZOOM meeting via the link
<b>10:05 - 11:00</b>	Meeting of Expert Panel members, discussion on observations and impressions from the preliminary site-visit, preparation for the meetings with HEI stakeholders
<b>11:00 - 11:40</b>	Meeting with the vice dean for teaching
<b>11:40 - 11:50</b>	<i>Break</i>
<b>11:50 - 12:30</b>	Meeting of Expert Panel members with the heads of study programmes
<b>12:30 - 13:30</b>	<i>Break</i>
<b>13:30 - 14:30</b>	Meeting with full-time employed teachers, except those in managerial positions
<b>14:30- 14:45</b>	<i>Break</i>
<b>14:45 - 15:30</b>	Meeting with external lecturers
<b>15:30 - 15:40</b>	<i>Break</i>
<b>15:40 - 16:10</b>	Organisation of an additional meeting on open questions, if needed

### Second day of re-accreditation in virtual form

Thursday, 18 <sup>th</sup> March 2021	
<b>9:00 - 9:30</b>	Joining ZOOM meeting via the link and a short internal meeting of the Expert Panel members
<b>9:30 - 10:15</b>	Meeting with: <ul style="list-style-type: none"> <li>• Erasmus coordinator</li> <li>• Head of the library</li> <li>• Practical work officer</li> <li>• Head of Department for Publishing Activity, Professional Development and Lifelong Learning</li> </ul>

<b>10:15 - 10:30</b>	Break
<b>10:30 - 11:30</b>	Meeting with students
<b>11:30 - 11:40</b>	<i>Break</i>
<b>11:40 - 12:20</b>	Meeting with Alumni (former students who are not employed by the HEI)
<b>12:20 - 13:20</b>	<i>Break</i>
<b>13:20 - 14:00</b>	Meeting with external stakeholders -representatives of professional organisations, business sector/industry sector, professional experts, non-governmental organisations
<b>14:00 - 14:15</b>	Break
<b>14:15 - 14:45</b>	Organisation of an additional meeting on open questions, if needed
<b>14:45 - 15:15</b>	Internal meeting of the Expert Panel members – comment on the first day and preparation for the second day

### **Third day of re-accreditation in virtual form**

	<b>Friday, 19<sup>th</sup> March 2021</b>
<b>10:00 – 11:00</b>	Joining ZOOM meeting via the link and a short internal meeting of the Expert Panel members
<b>11:00 – 11:15</b>	Exit meeting with the Dean and Vice-Deans
<b>11:15 – 11:30</b>	Break
<b>11:30 – 13:30</b>	Internal meeting of the Expert Panel members – assessment according to quality standards
<b>13:30 – 14:30</b>	Lunch break
<b>14:30 – 15:30</b>	Internal meeting of the Expert Panel members – assessment according to quality standards

## SUMMARY

The HEI was visited according to the reaccreditation protocol by the Expert Panel members together with the Agency representatives. During the site visit and the meeting with management the information was provided related to different areas of assessment and standards. The Members of Expert panel discussed the major issues with the management but also with students during their classes. They also had the opportunity to check the documents, such as policies, quality manual, surveys, teaching plans, exams, final thesis, financial reports, etc. The management of the HEI was welcoming and offered all needed assistance for the protocol to be managed successfully. During the site visit and the whole week of online meetings with different stakeholder groups the HEI managed to evaluate all standards and the result is the following. The HEI is an institution of very high importance for the local economy development and its community. The students need such an institution and it is necessary to follow up the development but also the improvement of the majority of the standards. The management shows strong enthusiasm and high commitment to survive and improve the operation of the HEI in the challenging environment and circumstances, but the transition of ownership and instable financial situation are limiting their success and current development. As a result, there is a lack of internal staff (teaching and administration) and study resources (the library, literature, space, etc). The management and the dean are motivated to improve and work hard on the networking with external associates and they established a very good relationship with teachers from other institutions in Croatia and established a solid ground with international cooperation. The initiative is good but there is a lack of Erasmus activity (students and teaching mobility) which is also the consequence of the lack of the employees that can do all the work in terms of teaching and coordinating other activities. The lack of English courses and syllabuses in English together with a lack of promotion of Erasmus causes the inability to accept international students and teachers. The teaching programs need revision in terms of learning objectives and their implementation in syllabuses as well as in the assessment process. The space and resources such as library resources are in the process of developing and hopefully the new building will offer added value to the HEI operation. The fact that the HEI shares its space with Secondary school is considered as a risk and on the long term there is a need to find a completely new space for the HEI with other facilities to improve students' lifestyle. According to the assessment of the overall quality of the HEI it is evident that there is a lack of implementation of quality procedures and the HEI has to work intensively on the process of implementation of all procedures, monitor their success and improve continuously. This would be possible with more internal staff and better organisation. Although there are limitations of HEI in terms of their weaknesses, the student's overall satisfaction with the HEI is satisfactory. It is a good sign and an



excellent base for the further quality development of HEI and the recommendations of the Expert Panel will add value to it, once implemented.