



agency for science and higher education

**REPORT  
OF THE EXPERT PANEL  
ON THE  
RE-ACCREDITATION OF  
MARKO MARULIĆ POLYTECHNIC OF KNIN**

**Date of site visit:**  
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The contents of this document are the sole responsibility of the Agency for Science and Higher Education.

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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 Marko Marulić Polytechnic of Knin.

Members of the Expert Panel:

- Prof. Dr. Matthias Kleinke, Rhine-Waal University of Applied Sciences, Federal Republic of Germany, Panel chair,
- Asst. Prof. Ines Dužević, Faculty of Economics and Business, University of Zagreb, Republic of Croatia,
- College professor Bojan Matijević, Karlovac University of Applied Sciences, Republic of Croatia,
- Prof. Eneken Titov, Ph.D., Estonian Entrepreneurship University of Applied Sciences, Republic of Estonia,
- Ivan Katavić, student, VERN University of Applied Sciences, Republic of Croatia.

During the site visit, the Expert Panel held meetings with the following stakeholders:

- Management
- Self-evaluation Report Committee
- Students
- Full-time teaching staff
- External lecturers
- Head of the QA office
- Head of professional practice

- Erasmus and ECTS coordinators
- Alumni
- Representatives of the business sector, potential employers.

The Expert Panel members had a tour of the work facilities, laboratories, library, IT classroom, student administration office, classrooms and student dormitory. The Expert Panel members also visited the Agroturism “Duvančić” where students do student practice.

In accordance with the site visit protocol, 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 Marko Marulić Polytechnic of Knin on the basis of Marko Marulić Polytechnic of Knin Self-evaluation report, other relevant documents and site visit.

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 site visit protocol),
- Summary.

In the analysis of the documentation, site visit to the Marko Marulić Polytechnic of Knin and writing of the Report, the Expert Panel was supported by:

- Maja Šegvić, coordinator, ASHE,
- Katarina Šimić Jagunić, assistant coordinator, ASHE,
- Lida Lamza, interpreter at the site visit and 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:

- **issuance of a confirmation on compliance with the requirements** for performing the activities, or parts of the activities
- **denial of license** for performing the activities, or parts of the activities
- **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.

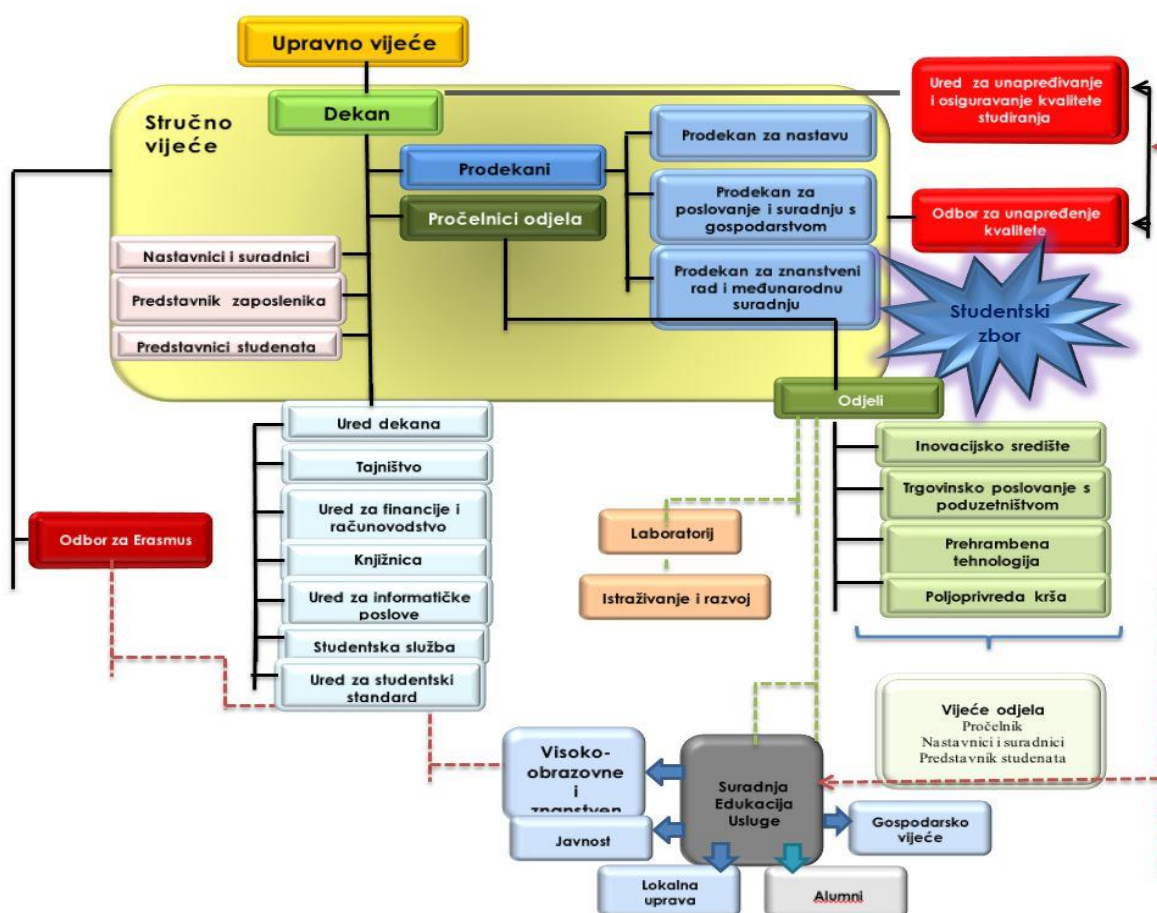
## SHORT DESCRIPTION OF THE EVALUATED HIGHER EDUCATION INSTITUTION

**NAME OF HIGHER EDUCATION INSTITUTION:** Marko Marulić Polytechnic of Knin

**ADDRESS:** Kralja Petra Krešimira IV 30, 22300 Knin

**DEAN:** Lovorka Blažević, univ. spec. oec., senior lecturer

### ORGANISATIONAL STRUCTURE:



The organisational structure was unfortunately not available in English language.

## **STUDY PROGRAMMES:**

### **Undergraduate professional study programmes:**

- Karst Agriculture – Animal Husbandry
- Karst Agriculture – Plant Production
- Food Technology
- Commerce with Entrepreneurship

### **Specialist graduate professional study programme**

- Economic and regulatory framework of entrepreneurship

## **NUMBER OF STUDENTS:**

Full-time students: 208

Part-time students: 56

## **NUMBER OF TEACHERS:**

Full-time staff: 24

Cumulative employment: 1

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

The Polytechnic Marko Marulić in Knin was founded in 2005 by the Decision of the Government of the Republic of Croatia. The Polytechnic perform undergraduate professional study programmes in the scientific fields of biotechnical sciences and social sciences and specialist graduate professional study programme in the scientific field of social sciences. The bodies of the Polytechnics are the Governing Council, the Dean, the Expert Council, the Councils of the Departments and other professional and advisory bodies whose establishment, composition and competence are regulated by the Statute and other general acts of the Polytechnic. The Polytechnic currently employs 25 teachers, of whom nine are PhDs. Seven of them are lecturers, fifteen are senior lecturers and three are college professors. In cooperation with the City of Knin, the Polytechnic built a dormitory with a total of 78 beds.

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

### **ADVANTAGES OF THE INSTITUTION**

- In general, communication between students and teachers is good
- Commitment of different stakeholders is good
- In the study area of the agriculture the laboratories are supportive for the studies
- HEI has Dormitory
- Communication with the local industry, they see their importance there.

### **DISADVANTAGES OF THE INSTITUTION**

- Poor quality management system – PDCA (plan-do-check-act) is not applied
- Collecting, analysing and using the results in planning activities
- Decreasing number of the students and high drop-out rate
- Lack of continuous work to improve and update the study programmes, LOs and assessment principles
- Lack of systematic planning and implementation of teachers' development
- Small coherence between the study programmes, learning outcomes, study methods, topics and assessment
- Lack of appropriate study materials (both books and electronic databases) also in Croatian and English.

### **LIST OF INSTITUTIONAL GOOD PRACTICES**

#### **EXAMPLES OF GOOD PRACTICE**

- Collaboration with the high-school - sharing the rooms and equipment, involvement of the teachers, information seminars in high-schools
- Different projects in cooperation with the local community – e.g. Ma-da project – students help to write the business plans for the local small business owners
- Sharing premises with the local community – conferences, art exhibitions.



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

Although the management and personnel at the Polytechnic were cooperative during the visit, the Expert Panel faced many issues in the assessment process. Data and facts from the Self-evaluation report and Analytical supplement didn't match and it was not possible to conduct preliminary analysis before the visit. Moreover, on the first day of visit, the Expert Panel found that almost all data from the Analytical supplement were incorrect. The exact data were provided at the end of the assessment process, and it was not possible to check it with stakeholders of the Polytechnic. Polytechnic's website provided very limited data in English and documentation was mostly in Croatian so foreign Panel experts could not conduct deep analysis. The Expert Panel also had less time for document analysis because the time was used to discuss the incorrect data issues.

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

#### **Analysis**

Internal quality assurance system at the Polytechnic is formally established, but it is not functional. Quality assurance system consists of Dean and Governing Council, Expert Council, Quality Assurance Board, The Office for Quality Assurance. It is regulated by the Ordinance of quality assurance, Quality Manual, The Ordinance for study programmes improvement, The Ordinance on acting upon the students' evaluation of teaching and teachers and other internal acts. However, all quality assurance documents are outdated and are not adjusted with Strategy for development (2019-2023). There were no evidences on acting according to the quality assurance documents and procedures, and only limited data on quality assurance performance have been collected. Collected data were not analysed and used for the improvement purposes. Therefore, it can be concluded that quality assurance system is not operational and functional. Regarding social role of the HEI, most of the stakeholders confirmed high level of involvement and commitment of the Polytechnic.

#### **Recommendations for improvement**

The Polytechnic should establish a functional internal quality assurance system, based on PDCA methodology. The management need to revise and update the Strategy for development and all quality assurance documents, based on the improvement recommendations from the previous and current evaluations. The management is strongly recommended to define key performance indicators to drive the performance of the Polytechnic. Internal evaluation system must be established to monitor the

achievements and performance of quality assurance plans. The quality assurance system should be transparent, include all stakeholders, provide accurate and timely feedback to all stakeholders, and implement recommendations from the previous and current evaluations.

#### Quality grade

Minimum level of Quality

## II. Study programmes

#### Analysis

The Polytechnic and the teachers are dedicated and care about the quality education, but they need to improve the writing and understanding of the learning outcomes and implement all the principles of outcome – based studies. The coherence in between learning outcomes, study methods and assessment can be more focused and clearer. There are many good examples of the collaboration between the industry and the Polytechnic, and the small number of the students (in most groups) allows to carry on almost individual teaching. The students highly appreciated the teachers' readiness to use different practical study methods in their classes e.g., company visits, field visits, real-world cases, visiting lecturers, etc.

#### Recommendations for improvement

In order to improve study programmes and prepare the students to be ready for the labour market, systematic collection and wise use of the labour market feedback and analysis (incl. regional economic analysis, labour market trends, future skills analysis etc.) must be implemented. The continuous work with study programmes and syllabuses is needed – minimisation of overlaps, update of the sources, better coherence between LOs and study methods, LOs and assessment, LOs and aims of the subject/course and study programme and following the modern study approaches are the challenges in near future.

#### Quality grade

Minimum level of quality

## III. Teaching process and student support

#### Analysis

The HEI and the teachers care about the students and their needs, but the infrastructure itself needs improvements to give students the best support possible.

Polytechnic has established a great cooperation with the industry and is inspiring students to develop the community they are living in. There are many good examples of student support, but there is also a lot of room for development. The main challenge the HEI is facing is dividing responsibility for certain obligations to different people in order to provide students with adequate support.

### Recommendations for improvement

The Polytechnic needs to establish a working process of student assessment including their results, happiness, improvement and overall satisfaction with the Polytechnic. By collecting this data it'll be possible for them to decrease the dropout rate and some other problems regarding the support and improvement of the students. Also, the information should be used to improve the classes and the teaching methods that are used. The Erasmus program should be advertised more in order to attract a larger number of foreign students and to motivate more students to study abroad.

### Quality grade

Satisfactory level of quality

## IV. Teaching and institutional capacities

### Analysis

Polytechnic "Marko Marulić" in Knin has 25 permanently employed teachers and 30 external associates. Most of associates come from scientific institutions and other Croatian higher education institutions (63.33%), while a smaller part is from the business sector (36.67%). The teacher/student ratio is favourable, and ranges between 1:10.15 and 1:18.95. However, the percentage of permanently employed teachers at the specialist graduate study programme Economic and regulatory framework of entrepreneurship is below 0.33, which is why the recommendation is to increase the number of permanently employed teachers. The Polytechnic includes external associates as mentors of final papers, and during the site-visit the Panel saw examples of good practice such as Agrotourism OPG Duvančić. All teachers have appropriate teaching grades, and their advancement is conducted in accordance with the Decision on the requirements for assessing teaching and scientific activities in the process of the election to teaching grades of the Council of Polytechnics and Colleges. The Polytechnic has not prescribed additional criteria nor special procedures for teacher advancement. Teachers' excellence is evaluated by students via surveys, but the Polytechnic should introduce peer-review for more objective results. Furthermore, better quality of teaching would be achieved by improving pedagogical competencies of teachers, but also by increased involvement in mobility programmes. Lecture rooms meet the needs

of the teaching process, and the laboratories have standard equipment necessary for teaching as well as up-to-date analytic and technological equipment. The Polytechnic does not have its own library, which is why it entered into an agreement with the Knin City Library. The recommendation of the Panel is to acquire more books in English or some other foreign language, introduce electronic books and give students and teachers the ability to search databases. The Polytechnic "Marko Marulić" in Knin is mostly funded from the state budget, which accounts for 81% of its budget and covers staff salaries and material costs. The remaining income comes from the students, from scientific and professional projects, laboratory services, other types of support, etc. The Polytechnic could increase its income through carefully planned participation in various projects. The 2017 Financial Report shows that the income is spent according to plan, but the book-keeping should be improved so as to facilitate the monitoring of expenses.

### Recommendations for improvement

Decrease the ratio of permanently employed teachers and students of the specialist graduate study of Economic and Regulatory Framework of Entrepreneurship.

Increase the percentage of external associates from the business sector.

Develop clear guidelines for the evaluation and benchmarking of excellence (for research, publication and teaching activities) of teaching candidates.

Develop clear guidelines for the evaluation and benchmarking of excellence for advancement into higher grades (for research, publication and teaching activities).

Continuously develop didactic and pedagogical competencies of teachers.

Encourage teachers to take part in mobility programmes.

Continue equipping laboratories for students' education for the purpose of improving the teaching process and scientific work of teachers and students from the fields of agriculture and food technology.

Increase the fond of books in the English language.

Improve cost planning and managing.

Plan the participation in projects more carefully, and use them as a source of additional income.

### Quality grade

Minimum level of quality

## V. Professional and/or scientific activity

### Analysis

In order to be able to compete in the scientific and professional activities of the Marko Marulić Polytechnic of Knin, it must first be emphasised that it is an institution that must

focus primarily on its teaching. Teachers must dedicate most of their working time to teaching tasks. However, scientific and professional activities have to supplement these tasks and the results of this work should be incorporated into the teaching at the Polytechnic. If we take this into account, it can be said that Polytechnic strives to meet the demands placed on it in the field of scientific and professional activities. Scientific results are published, quite a number of the teachers participate in scientific and professional organisations and the institution takes the needs of society, local community and labour market into consideration. Polytechnic has also participated in scientific projects on a regular basis. The involvement of the students in the projects is successful.

### Recommendations for improvement

It is initially recommended to improve the structural basis to enable scientists and teachers at Polytechnic in Knin in their additional scientific, social and professional work. The support of these activities should be continued and further developed, in order to improve the recognition of the institution and to motivate all the employees. Emphasis should be placed on the continuous acquisition of third-party funded projects. These are the key to success in the entire area of Standard V. The impression arose that the economic sector in particular requires special support here.

### Quality grade

Satisfactory 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

*Internal quality assurance system includes and evaluates all activities of the higher education institution (study programmes, teaching process, student support, support to students from under-represented and vulnerable groups, learning resources, professional and/or scientific activity etc.) and provides underlying documentation.*

According to the Self-evaluation report and internal documents, Quality Assurance System at Polytechnic includes: The Office for Quality Assurance, Quality Assurance Board, Expert Council, Dean and Governing Council. However, more detailed analysis revealed that quality management system is not fully established and functional. Planning activities at the Polytechnic are limited to only few (e.g. financial planning according to the legal requirements, student survey at the end of the semester), but systematic approach is missing. Some of the critical aspects in the quality management system, such as: passing rates of students and student drop out, the quality of study programmes, student support, scientific activities are not considered and analysed at the meetings of the Quality Assurance Board (revealed during the document analysis of minutes of the Quality Assurance Board for period 2016-2019). Those critically important aspects for every higher education institution are not integral parts of the Polytechnic's quality assurance system.

All documents of the quality management system are outdated, except for the Ordinance of quality assurance (from April 2019). For example, Quality Manual is from 2013 and it is based on the old ESG standards. Newest available action plan is from year 2014, Manual for learning outcomes (2013), The Ordinance on acting upon the students' evaluation of teaching and teachers (2009), and The Ordinance for study programmes improvement (2012). Moreover, stakeholders were not familiar with the procedures defined in these documents (for example, teachers didn't mention the Ordinance for study programmes improvement when asked to explain how they improve their study programmes, the minutes of the Quality Assurance Board for the last three years haven't included any evidence of the implementation of the Ordinance on acting upon the students' evaluation of teaching and teachers or Quality Manual).

Finally, it is important to point out that management recognised these serious issues and they initiated some fundamental changes needed for future development. For example, six months ago, one person is employed who is responsible for providing support to the dean and vice-dean in development of the quality assurance system. New strategy is implemented for the period 2019-2023 with goals related to the development of quality assurance system.

*Internal quality assurance system seeks to involve all stakeholders of the higher education institution (students and external stakeholders – employers, alumni, representatives of professional organizations, civil society organizations and internal stakeholders).*

The inclusion of students in the Quality Assurance Board is a good practice, and strategic goal to include one representative from the economic sector is also welcoming. It was also encouraging to see very good communication and commitment of alumni, representatives of professional organizations and employers during the visit. Still, there are many challenges for the Polytechnic in this area. Data from stakeholders are not collected in an organised and systematic way, and more important, are not used to improve quality at the Polytechnic. The Polytechnic collected data from alumni and employers using surveys but there were no evidences of its use for the improvement purposes (no records in the minutes of Quality Assurance Board or other reports related to the topic). For example, quality of the study programmes has not been discussed by the bodies responsible for quality assurance. The Economic council's input on study programmes is valuable, but they have just been included in the development of new study programmes (Minutes or some other evidences of the operation of the Economic council were not available and employees at the Polytechnic confirmed that it was not functional in previous years. New Economic council was established in April 2019.).

*The higher education institution adapted a quality assurance policy which is a part of its strategic management and is achieved through the implementation of the strategy, including a research strategy involving a period of at least five years.*

Quality assurance policy is defined and communicated through the website. However, it was not revised and adjusted after the implementation of Strategy for the Development 2019-2023. It is strongly recommended to revise Quality assurance policy and other quality assurance system documents to update and develop all the contents according to the new Strategy. All quality assurance documents should be connected to the Strategy and strategic goals, Quality assurance policy, and mission and vision of the Polytechnic. It might be useful to reconsider vision and mission statements of the Polytechnic because the economic conditions, demographic trends and the role of Polytechnic are changed a lot during last several years.

*The implementation of the strategy includes SWOT analysis, strategic goals, programme contract goals (where applicable), operational plan, defined responsibilities for implementation, monitoring mechanisms and the report on its implementation.*

The Strategy for development includes SWOT analysis, goals, and operational plan with defined responsibilities for the implementation. The Strategy was implemented in 2019 and previous strategy covered period until 2017. Therefore, it is very hard to make conclusions related to the strategic management issues. Operational plans were not available and newest action plan was the Action plan based on the external evaluation results in 2014 (External Independent Periodic Review of Internal Quality Assurance). The management of the Polytechnic was not familiar with the meaning of key performance indicators, and they mentioned development of two new study programmes, development of teachers, and innovation centre as their key strategic goals. Based on the evidences (no operational plan, strategic documents are not harmonised, no strategy for the period 2017-2019, no reports on the strategy implementation) it can be concluded that monitoring, reporting and improvement activities are not functional and require significant improvements.

*The higher education institution systematically collects and analyses data on its processes, resources and results, and uses them to effectively manage and improve its activities, as well as for further development.*

The Polytechnic collects some data about its processes, but it is not used for effective management of the activities. The questionnaires for collecting data about employers' and graduate students' perceptions on institutional quality are well structured and results are available. However, the results are not used in the effective manner for the improvement purposes, because there is no evidence that results were further analysed within some institutional body or group, and there is no evidence on improvement activities. There are some examples of improvement activities in the Self-evaluation report (such as: new Plan of Activities for Ensuring and Improving the Quality of Studies), but these are all activities implemented over the last six months. In addition, the system for collecting data and providing feedback on institutional performance failed during the Expert Panel assessment process. Tables from Analytical supplement were incorrect, and employees of the Polytechnic could not provide good explanation for this. The quality assurance team (representative in the Office and members of the Quality Assurance Board) should consider introduction of quality assurance indicators and define process for data collection, analysis, assessment and identification of improvement activities.

*The higher education institution uses various methods for collecting data on quality (student satisfaction surveys, peer review, feedback from employers and/or associates, graduates, etc.).*



The Polytechnic uses student satisfaction surveys, employers' satisfaction surveys, graduates' satisfaction surveys to collect data on quality. Very good communication between students, external stakeholders, and teachers is established because of the good student-teacher ratio. Peer review is not implemented at the Polytechnic.

The data collection process can be significantly improved by simple analysis of data available in the system. There were no evidences that Polytechnic analyses data on students' achievements (passing from first to second year, average year to complete the study program, dropout rates etc.) that are available in their own database. This must be improved since the data from MOZVAG Analytical supplement indicate serious problems with students' achievements (tables 3.4, 3.5 from Analytical supplement). Furthermore, there were no evidences that Polytechnic uses data collected from stakeholders' satisfaction surveys for the improvement purposes. Collected data should be analysed and used for the quality improvements. Feedback about the results and improvements should be provided to all stakeholders.

*The higher education institution is committed to the development and implementation of human resource management policies (managerial, teaching, administrative resources), in accordance with professional principles and standards.*

The management of the Polytechnic is providing support to the teachers regarding their education, promotion and scientific activities. Supporting and administrative staff are also supported by the management. This is achieved using individual contacts and communication, since they are small organization. There is no plan for the development of teaching or supporting staff at the Polytechnic.

Dean is also not supported enough because in the last few years she didn't have enough support from vice-deans. Additional support to the management should be provided by appointing new vice-deans for specific areas (study programs and quality management system are critical areas according to the result of the Expert Panel assessment). The roles and responsibilities have to be mapped, analysed and divided according to the real needs, mission and goals.

### Recommendations for improvement

- Quality assurance system should be established and maintained according to the PDCA (plan-do-check-act) methodology. All activities should be planned, implemented as planned, continuously monitored to collect data about the performance results, data should be analysed in order to recognise improvement possibilities and improvement actions should be implemented in the end. The feedback should be provided to all stakeholders.
- The dean should communicate quality assurance issues with the Expert council and other stakeholders and motivate them to engage more in all related

processes. For example, one thematic meeting of the Expert council on the quality assurance issues should be organised annually.

- All quality assurance documents should be revised and updated to match the vision, mission, quality policy, and strategic goals of the Polytechnic.
- Strategy for the development should be adjusted to include all ASHE standards and criteria. Vision and mission may also be improved with simpler wording and clearer focus, considering newest trends. The management should define key performance indicators and follow them continuously.
- Quality assurance plan should include all activities of the Polytechnic with clearly defined roles and responsibilities, time framework, funding, and evaluation criteria.
- Data collection processes for the quality assurance purposes should also include the analysis, result discussions, improvement plans and feedback to stakeholders. Quality assurance team should define quality indicators and processes for its monitoring, assessment and improvement.
- Data on students' achievements should be included in quality assurance indicators and regularly monitored (data about student passing from first to second year, data about average years to graduation at each study programme, dropout rates etc.).
- Implement a plan for teachers and supporting staff development.
- Appoint two new vice-deans to support dean in the processes of study programmes development and implementation of the quality management system.

#### Quality grade:

Unsatisfactory level of quality

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

#### Analysis

*The higher education institution analysed the recommendations for improvement and undertakes activities on the basis of previous internal and external evaluations.*

The Polytechnic was evaluated in 2011 by the Expert Panel from ASHE and it resulted in licensing. The report from previous evaluation includes many positive aspects, but also several improvement recommendations. The action plan was introduced, and some changes were implemented (they created Quality Manual, developed mentorship program for students at each study program, etc.). Notwithstanding, some recommendations were not implemented till May 2019. For example, one of the

recommendations was to conduct analysis of students' achievements because of unsatisfactory passing rates from first to the second year of study, introduction of courses in foreign languages, development of life-long learning programmes.

Second ASHE's external evaluation was conducted in 2014 to check the Quality Assurance and Improvement System of the Polytechnic, and the conclusion was that it is at an initial stage. The action plan to react according the recommendations have been introduced, but not fully implemented by now. For example, systematic monitoring and reporting about strategic goals realization, transparency of quality assurance system, use results from the quality assurance system in managing the Polytechnic, adjust the management system according to the ESG 2015 standards, and encourage international mobility of teachers and students.

There were no evidences of internal evaluations at the Polytechnic after the 2014, although the Ordinance of internal evaluation procedure for quality assurance system (introduced in 2013) requires this kind of evaluation.

*The higher education institution analyses improvements and plans for further development accordingly.*

The Strategy for development 2019-2023 includes analysis of current situation and plan for further development. Thus, it is expected that Polytechnic will start some improvement activities. On the other hand, there were no evidences of previous analysis and improvement actions. The plans for quality assurance were introduced, but not implemented (no evidences in documents, such as: minutes of the Quality Assurance Board). It is strongly recommended to start with serious changes in the quality assurance system based on the plan defined in the Strategy for development and recommendations given in the chapter 1.1.

#### Recommendations for improvement

- Do the assessment to check the fulfilment of recommendations from previous external evaluations and adjust your strategic goals and operational plan accordingly.
- Conduct regular internal quality assurance evaluations according to the ESG requirements (at least annually).

#### 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 higher education institution supports academic integrity and freedom, upholds the ethical standards and preserves academic integrity and freedom.*

The Polytechnic has the Code of ethics that highlights ethical standards and values to support academic integrity and freedom. During the site visit, all stakeholder groups confirmed that the Polytechnic promotes and preserves academic integrity and freedom. The document analysis included the Code of ethics which is based on human rights, academic integrity and dignity.

*The higher education institution effectively uses mechanisms for preventing unethical behaviour, intolerance and discrimination.*

The Polytechnic has internal acts that are regulating unethical behaviour, intolerance and discrimination. These are: The Labour Regulations (*Pravilnik o radu*) and Code of ethics (*Etički kodeks*), Regulation on Disciplinary Responsibility of Teachers, Associate Teachers, and Other Employees (*Pravilnik o stegovnoj odgovornosti nastavnika, suradnika i ostalih zaposlenika*), Regulation on Disciplinary Responsibility of Students (*Pravilnik o stegovnoj odgovornosti studenata*). The Expert Panel has no possibility to assess the implementation of the procedure described in those documents, because all issues were discussed and settled between involved parties.

*The higher education institution carries out activities related to the sanctioning of unethical behaviour, intolerance and discrimination.*

The teachers at the Polytechnic use good practice to deal with the challenges related to the sanctioning of unethical behaviour, intolerance and discrimination. Such behaviours are very rare at the Polytechnic because they are small and very connected community. It is surprising that internal acts are not used, and the management should reconsider the revision of the acts in order to make it more useful.

*The system for managing conflicts and resolving irregularities is functional at all levels of the higher education institution.*

The Polytechnic defined the procedures for dealing with conflicts and irregularities in their internal acts, listed above. The Disciplinary Committee is appointed by the Expert Council, and the dean is responsible for the execution of disciplinary measures. The conflicts and irregularities are usually managed using informal procedures and good practices, while there were no evidences that prescribed procedures were implemented, according to the internal acts. The fact that issues are solved directly using good practices is encouraging, especially because all stakeholders agreed that system is functional and satisfying.

*The work of employees of the higher education institution, its students and external stakeholders, is based on ethical standards in higher education.*

Ethical standards at the Polytechnic are defined by Code of Ethics, and during the site visit all evidences (discussions with different stakeholder groups) confirmed high level of compliance.

*The higher education institution systematically addresses issues of academic dishonesty (plagiarism, cheating, etc.)*

It is very good that Polytechnic is considering purchase of software for detecting plagiarism. This may help teachers to save time and ensure higher level of academic integrity at the Polytechnic. At the moment, teachers are using all available tools, such as: google search, checking the name of document owner and the duration of drafting a paper, deep text analysis etc.

Cheating issues are managed using traditional measures and good practices. It is prevented by prohibiting the use of portable electronic devices in classroom, as stated in the Self-evaluation report. The advantage of the Polytechnic is work with small groups where it is much easier to prevent cheating. There was no evidence of implementation of the measures defined in the Regulation on Disciplinary Responsibility of Students (*Pravilnik o stegovnoj odgovornosti studenata*).

#### Recommendations for improvement

- Revision of internal acts for preservation of ethical behaviour and academic integrity, in order to make it more useful for the Polytechnic's stakeholders.
- Introduction of a software for detecting plagiarism would help teachers to deal with plagiarism issues.

#### Quality grade:

Satisfactory 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 programmes and other activities of the higher education institution is publicly available in Croatian and at least one world language.*

Information about study programmes and other activities of the Polytechnic are available through their webpage in Croatian language, but only limited information is provided in English (some information for exchange students are available). This

problem is recognised by the management, and they already initiated some improvement activities. They are in the process of agreeing a new website in Croatian and English. They will also improve graphic design and create a manual of basic graphic elements, as stated in their Self-evaluation report.

An employee is responsible for dealing with information requests, according to the Act on Access to Information. All information at the Polytechnic's website are timely published and available. The Polytechnic also provide brochure for students and information on notice board in the building hall. They have Facebook page in Croatian language where they promote their activities and study programmes.

Detailed information about study programmes and courses are available through the Moodle platform. All teachers use Moodle to communicate and provide learning materials and information to students.

*The higher education institution informs stakeholders on the admission criteria, enrolment quotas, study programmes, learning outcomes and qualifications, forms of support available to students.*

Admission criteria, enrolment quotas and related processes are published on the website and also available by email, phone or personal contact at the Student Service. The enrolment process is organised through State Matura and national portal for students' applications. Syllabuses of the courses for each study programme are available at the Polytechnic's website in Croatian language. The syllabuses include description of the course, learning outcomes, and qualifications. It might be useful for students and/or other external stakeholders if the Polytechnic provides schematic overview of each study programme.

Student support is organised through mentorship program in which teachers are responsible to provide support to the students. Students are informed about the support directly in class or by students' representatives. Information on student support are not available on the website. It is recommended to provide additional professional support for the students, because data indicate that students' achievements are very poor (tables 3.4 and 3.5 form Analytical supplement) and to inform students about mentorship program through the website.

Students are well informed about the administrative procedures and requirements on the website, by email, phone or direct contact with Student Service personnel.

*Information on the social role of the higher education institution is made available to stakeholders.*

Information on the social role are available to all stakeholders by website of the Polytechnic and also in direct contacts with different stakeholders. Local community is very well connected, and they communicate on the weekly basis (according to the statements of association, alumni and employers' representatives during the site visit).

The website contains category news where it is possible to find information of different events, workshops, projects and other activities related to the social impact of the Polytechnic.

*The higher education institution informs stakeholders about other indicators (e.g. pass rate analyses, graduate employment, drop-out rates, outcomes from previous evaluations, etc.).*

The Polytechnic provides the information about previous external evaluations on the website, but no data on internal evaluations. However, latest external evaluations were conducted in 2014 so most of the information regarding evaluations are outdated. The results of employers' surveys, graduate students' survey and students' survey are available, but there is no description of the sample and used methodology. Information about graduate employment are also provided but are not consistent with data provided in Analytical Supplement. Data about pass rates and dropout rates are not available. The stakeholders were not well informed about these issues during the site visit interviews.

#### Recommendations for improvement

- The Polytechnic must provide all information about study programmes and other activities at their website in English.
- It might be useful to provide the schematic overview of each study program with titles of obligatory and elective courses and appointed ECTS credits and teaching hours for potential students.
- Students should be informed about mentorship programs on the Polytechnic's website, and additional professional support to the students is recommended.
- The Polytechnic should conduct serious analysis of student passing and dropout rates and communicate the issue with internal and external stakeholders to define improvement actions.
- The results of student or other stakeholders' surveys should include the explanation of used methodology and sample characteristics.
- The Polytechnic should provide feedback to stakeholders about survey results and resulting improvement actions.

#### Quality grade:

Minimum level of quality

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

#### Analysis

*The higher education institution contributes to the development of economy (economic and technological mission of the higher education institution).*

Polytechnic's mission includes statement: "desire is to contribute to the accelerated and quality development of the town of Knin and its surroundings, the Šibenik-Knin County and beyond". Polytechnic is very well connected with its stakeholders in the town of Knin, and they cooperate in some developmental projects and activities (for example, TechTransferSIKC – Transfer of technologies and commercialization of innovations in the food sector of the Šibenik-Knin County).

One of the key strategic goals of the Polytechnic, from the very beginning, is to develop innovation centre. The plan and necessary documentation are prepared, and Polytechnic is still looking for the funding sources (during the site visit dean explained that they prepared complete documentation and are in the process of applying at the European project funds). Their previous applications were not successful, and the project is in the same development phase as it was during the last reaccreditation process (according to the Report of Expert Panel from 2011). It is strongly recommended to put more effort in the project realization, because it may help the Polytechnic to become the engine of economic development in the region.

*The higher education institution contributes to the development of the civil society and democracy (civil role).*

The Polytechnic has established very good connections with local associations and organizations and it is included in many projects aimed at developing civil society and democracy (such as: MA-DA, Yung, and socially engaged, in cooperation with 'Women Association from Drniš; Green is the new IN – whose goal is to promote environmental protection and sustainable development, etc.). During the site visit all stakeholders confirmed their satisfaction with the Polytechnic management and teachers' willingness to cooperate in such projects and activities.

*The higher education institution contributes to the development of the local community.*

The Polytechnic is very active in projects and events aimed at developing local community. Its facilities are available to local organizations for organising different events (for example: a scientific conference 'Digital transformation: Knin smart city'; art exhibitions, etc.). The major of Knin is employee at the Polytechnic and they worked together in preparation of the Strategy of the City of Knin. The Polytechnic also cooperates with Regional Developmental Agency of Šibenik-Knin County and regional Chamber of Economy.

*The higher education institution contributes to the foundations of the academic profession and the accountability of teachers for the development of the higher education institution and the local community.*



The Polytechnic supports teachers and other staff in their education (for example, teachers are encouraged and financed for attending postgraduate study programmes), trainings and workshops, and scientific activities (participation in conferences and publication fees are financed). It also provides the opportunity for teachers to use its facilities (laboratory and other equipment) for the research purposes. During the site visit, teachers confirmed high level of satisfaction with provided support. It is suggested that management create a plan for strengthening teachers' and other staff capabilities and to collect data on achieved improvements.

#### Recommendations for improvement

- The Polytechnic should put more effort in realization of the innovation centre project. It may be useful to consider hiring external experts, since the Polytechnic was not successful in the realization of the project in last ten years and according to their financial reports, they have enough reserve funds.
- It is already recommended to the Polytechnic to create a plan for the development of its staff (teachers and supporting staff). This plan should include activities to strengthen teachers' capabilities for the development of Polytechnic and the local community.

#### Quality grade:

Satisfactory 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 Polytechnic does not have lifelong learning programmes. However, the strategy for the period 2019-2023 envisages development of lifelong learning programmes. The development of lifelong learning programmes is also part of the Polytechnic's vision.

#### Recommendations for improvement

- The Polytechnic can use the opportunity to develop lifelong learning programmes in partnership with local business community, especially in the area of agribusiness and rural tourism.

#### Quality grade:

Not applicable

## 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*

*There is evidence that general goals of all study programmes are in line with the mission and strategic goals of the higher education institution.*

According to the home-page of the Polytechnic and Self-evaluation report, the main task of the Polytechnic is the education of practitioners oriented towards practice with the aim of the independent application of professional knowledge and scientific methods specific to each area of education, which has been initially directed towards a future vocation. The Polytechnic particularly stresses the need and eagerness to contribute to the quality development of the town of Knin and its surroundings, the Šibenik-Knin County and beyond. Since the representatives of the Polytechnic, employers and students enhance the Polytechnics' practice-oriented study approach, the study programme expected outcomes are focused on graduates' high ability to work in this particular field of the study programme as high-quality specialist, it can then be said that, in general, the goals of the study programmes are in line with the Polytechnic's mission. What needs to be highlighted separately is that the descriptions of the study programmes don't include clear objectives of the study programmes.

As was expressed by the HEI representatives during the interview, one aim of the Polytechnic is to be the leader of the economic development of the region. The Polytechnic has chosen the study programmes, which support the region's economic profile and its sustainable development, the Polytechnic collaborates with the local community and employers, develops new study programmes following region needs. Therefore, can be concluded that the study programmes development is in line with strategic goals of the institution.

*The higher education institution aligns the general objectives of study programmes with the needs of the labour market (at the local, regional and national level).*

<b>Study programme</b>	<b>Expected result of the study programme</b>	<b>Conformity with the labour market needs</b>
Karst Agriculture - Plant Production	The student becomes ready for the labour market as the manager and / or supervisor of production on the farm, the manager of the small family farm, the administrative referent in the local administration bodies for various affairs in the field of agriculture and rural	The interviews with the representatives of labour market and students confirmed the need for the specialists, but the need is quite a small and Polytechnic should be better prepared for the

	sector, associates in research institutions in the field of agriculture (senior technician), and associates in the trade of agricultural equipment and products.	continuous changes in the structure of the economy and labour market. Also, the decreasing number of admitted students shows the necessity of the changes in the study programme.
Karst Agriculture–Animal Husbandry	The student becomes ready for the labour market as the manager and / or supervisor of production on the farm, the manager of the small family farm, the administrative referent in the local administration bodies for various affairs in the field of agriculture and rural sector, associates in research institutions in the field of agriculture (senior technician), and associates in the trade of agricultural equipment and products.	The interviews with the representatives of labour market and students confirmed the need for the specialists, but the need is quite a small and Polytechnic should be better prepared for the continuous changes in the structure of the economy and labour market. Also, the decreasing number of admitted students shows the necessity of the changes in the study programme.
Food Technology	The student becomes ready for the labour market as a food technologist in companies focusing on the production and trade of quality food, as well as an expert in performing complex expert tasks in the field of food technology.	The employers affirmed the need for such a study programme and also the increasing collaboration with the external stakeholders in this field shows the local and regional interest.
Commercial Business with Entrepreneurship	The student becomes ready for the job market for higher level of responsibilities in the private and public sector, territorial organization offices, companies, public administration, professional and other associations as bargaining companies in the field of business and small enterprises.	There are some good examples of the graduates of this Study Programme who have launched their own company and are successful entrepreneurs. That is what the region needs – according to the local representatives. Study programme should be more oriented to the entrepreneurship skills and becoming an entrepreneur or at least entrepreneurial employee.
Economic and regulatory framework of entrepreneurship	the student becomes ready for the labour market with the competences to carry out a wide range of jobs in the economy and the public sector (acquiring relevant knowledge and skills in the field of economics and law), such as organization and management of business entities in the economy, contracting of jobs, specific jobs in agribusiness and tourism, commercial affairs in state administration, administrative and non-administrative tasks in the state administration and local government administration, banking, savings, funds, insurance companies and other financial institutions, financial and brokerage and diligent work on stock exchanges, money	According to the description of the suitable job positions for the graduate of this study programme, the studies try to solve all the labour market problems through one programme. The lack of entrepreneurs who could create new job places and develop the economy is certainly important both in local and regional level, but this idea is not well presented in this description.

	markets and stock exchanges, accounting and finance operations in state administration, and business in an international environment.	
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The labour market needs will be collected through the industry professional's participation in different committees (e.g. economic committee) and the verbal feedback received from the employers after the internship. Students and teachers are well connected with the area – they know what the area and people here need. Polytechnic also collects the data of graduates' employment, but the results are partial and do not reflect an adequate picture of the need of the labour market.

*The justification for delivering study programmes is provided and includes an analysis of resources of the higher education institution required for delivering the study programmes.* The Polytechnic hasn't opened new study programmes for several years. The analysis of the resources of the existing study programmes could be more consistent – although the number of the students in most of the study programmes have dropped down significantly, the Polytechnic hasn't done significant changes in the resource's allocation. Additionally, to the traditional resources (teachers, study rooms, etc.), necessary for the quality studies, also the other resources (e.g. available internship places, innovative educational technology, e-material and databases, etc. and their cost and impact) must be considered in analysing the entire process of delivering the quality study programmes. According to the number of the enrolled students, the price of one study place (graduate student) is high, especially in Karst Agriculture study programmes and is probably subsidized by Entrepreneurship study programmes or from Polytechnic's savings.

*If the higher education institution delivers study programmes leading to degrees in regulated professions, it accepts the recommendations of professional organisations that govern their licencing.*

Polytechnic does not deliver study programmes leading to degrees in regulated professions.

### Recommendations for improvement

- The wording of clear and specific objective for every study programme.
- Set up criteria and measuring system for monitoring the graduates' movement and success in the labour market.
- To develop the Karst Agriculture curricula to be in better accordance with the local economy and market needs. Polytechnic already have initiated the new study programmes, but since those are not confirmed by the authorities and

weren't introduced for the Expert Panel, the Report won't include the analyses of those.

- Systematic and versatile collection of the labour market feedback with meaningful reviews and improvement activities based on the results.
- To systematically analyse the amount and cost of the different resources needed for running the study programmes at a quality level.
- The Polytechnic should collect and implement the feedback from professional organisations.

### 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 higher education institution has clearly defined the learning outcomes of the study programmes, and they are aligned with the mission and goals of the higher education institution.*

The learning outcomes (hereinafter LO) are worded for every study programme and the table matching the learning outcomes, and subjects/courses are included in the programme. The table gives a quick and visual overview of the allocation of the learning outcomes between the subjects. Those tables also indicate some problems:

- I. Some of the learning outcomes are too general, or there is severe overlapping of focusing on some LOs in almost every subject (e.g. in Food Technology study programme are 29 subjects/courses and 20 of them help to achieve the same LO (number 29: "*biti obrazovani za nastavak diplomskog studija u području prehrambene tehnologije*" - "*to be educated to continue graduate studies in the field of food technology*"; number 23: "*interpretirati podatke dobivene laboratorijskim metodama u analizi hrane*" - "*interpret the data obtained by laboratory methods in food analysis*").
- II. Some of the subjects are too general or vague according to the table and try to achieve almost all learning outcomes of the study programme at the same time (e.g. Market Research (Food Technology) contributes to the 10 LOs from 14 as total; Pig Breeding (Animal Husbandry) to 10 LOs out of 10 etc.).
- III. There are too many LOs of the study programme (e.g. Economic and regulatory framework of entrepreneurship study programme has 17 LOs), and some of the

areas are too prevailing (e.g. Economic and the regulatory framework of entrepreneurship study programme - out of 17 LOs 7 are about finances).

The LO's of the study programmes don't reflect enough the primary goal/mission of the Polytechnic (focusing to the local region and teaching the specialists) – the focusing on the regional development (Šibenik-Knin county) is not mentioned in any programme level LO.

*The higher education institution checks and ensures that the learning outcomes at the level of courses are aligned with the learning outcomes at the programme level.*

According to the syllabuses provided in English, during the visit, there is a lack of coherence between the learning outcomes of the different level (study programme level and subject/course level). For example, Strategic Management (Economic and regulatory framework of entrepreneurship) has six, very detailed level outcomes, and most of those don't reflect how the study programme level outcomes can be supported or achieved.

It is good that the Polytechnic offers for the academic staff the training in the area of learning outcomes. Unfortunately, better knowledge and skills haven't yet reached the written syllabuses. The learning outcomes are worded in very different level and only in some syllabuses the competence level of the teacher has been good at framing the LOs in a meaningful way and following the study programme level outcomes.

*Learning outcomes achieved in the study programme are aligned with the CroQF and EQF level descriptors.*

According to the CroQF and EQF, the learning outcomes should describe not only the expected skills and knowledge but also responsibility and autonomy of the student/graduate. The 6<sup>th</sup> level of the EQF indicates that students “*manage complex technical or professional activities or projects, taking responsibility for decision-making in unpredictable work or study contexts; take responsibility for managing the professional development of individuals and groups.*” This aim should be clearer in describing learning outcomes and planning the course methodology. At the same time, the 7<sup>th</sup> level of the QF says that master level student should have “*Highly specialized knowledge, some of which is at the forefront of knowledge in a field of work or study, as the basis for original thinking and/or research*”, but many of the master level subjects/courses bring out just basic level knowledge.

The level of learning outcome is assessed through the used verbs and, respectively to the taxonomies of LO's (e.g. Bloom) and master level students' learning, it should be more in-depth and broader (focusing on a higher level of the taxonomies).

Some other problems concerning the LOs must be mentioned:

- Based on the syllabuses, there is quite a big overlapping of the LOs and course content between different subjects (some examples):
  - English II (first year) and Business English (second year of the Commercial Business and Entrepreneurship) with the same content, learning outcomes and literature
  - Basic Accounting course has learning outcomes connected to the study program Animal Husbandry, although it is part of the Commercial Business and Entrepreneurship study programme
  - Economics Principles is a course offered at the undergraduate and graduate level with the same content, learning outcomes, and literature
- Also, the study materials overlap course by course (e.g. Commercial banking and commercial banking II – 50% of the LOs are the same and also the study material is almost the same (2 out of 3 sources).
- LO's and content doesn't match (e.g. International economics)
- LOs don't reflect the necessary level of the programme (e.g. Strategic Management: define, explain, understand, evaluate the organisational forms – those are lower level of the taxonomy).

*In defining learning outcomes, the higher education institution acts in line with professional requirements and internationally recognized professional standards, ensuring that the programme is up to date.*

The Polytechnic carried out the benchmark of the study programmes with the respected universities from abroad (e.g. Hochschule fur Wirtschaft und Recht Berlin (Germany), Agriculture University Plovdiv (Bulgaria), Eflfpa auch Bealieu Toulouse (France), John von Neumann University, Kecskemet (Hungary), Universita degli studi de Cal Calari (Italy), University of Technology Bydgosz etc.), but there is no clear methodology which study programmes and why where actually selected for comparison, according to which criteria the analyses were carried out, which parts of the curricula (e.g. LOs, aims, study methods, topics etc.) where selected, what are the results and conclusions of the comparison for the Polytechnic.

According to the Polytechnic's Self-evaluation report and interviews, there are no other professional standards which should be followed. In the area of the business administration and entrepreneurship, there are actually many topical models, standards and principles to be used for the programme's development. For example, European Commission constantly working on entrepreneurship competence model (EntreComp) and there are also many business administration (also SMEs field and in the area of agriculture) competence models available.

*The intended learning outcomes clearly reflect the competencies required for employment, continuing education or other individual/society needs.*

The Polytechnic gets information about the required competencies through two main channels – questioning the employers as internship providers and asking the advice from the Economic Council of the Polytechnic. There are good examples of the students continuing their education in other Croatian universities and colleges, and learning outcomes of the study programmes reflect the Polytechnic valuing the enabling of further studies in higher education.

One important trend in the education is the integration of transferable skills (also called as key competencies) into the study programmes. There are many different academic researches (e.g. Future Skills) which bring out the need for integrating the key competencies into the study programmes, and learning outcomes should also reflect the focus on and achievement of the main key competences necessary in study areas.

### **Recommendations for improvement**

- According to the syllabuses, the Expert Panel recommends external evaluation to focus only to the outcome-based studies and LO's of the study programme and courses.
- The Polytechnic should continue the trainings and seminars in the areas of outcome-based learning, study methodology and pedagogy in general to increase the teachers' competences for planning and conducting the outcome-based studies.
- To set up the system and conditions for successful and useful benchmarking and systematic analysis of the result with the justified implementation of the results for the study programme development.
- The systematic analysis of the trends and researches of the necessary competences for the graduates/future employees or employers must be carried out and used in study programme development.

### **Quality grade:**

Unsatisfactory 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 higher education institution ensures the achievement of intended learning outcomes of the study programmes it delivers.*



The Polytechnic and the academic staff understand the principles of the outcome-based learning and focus on the intended outcomes both in planning and delivering the subjects/courses. In general, the used pedagogical approach supports the student to achieve the outcomes. At the same time, there are some subjects/courses which base on input-based approach (teachers select topics according to their strengths and preferences, and not competencies necessary for the students for successful entering into the labour market).

There is an agreed system of the communication of the learning outcomes for the students. The syllabuses (performance plans) for each course are published on the Moodle course and during the first lesson, the teacher introduces the performance plan for the students. Teaching methods are adapted to achieving the desired learning outcomes. The assessment methods and forms are selected to fix the final competence (LOs). There are some pieces of evidence about the internal coherence in the study programmes – the achievement of some LOs is gradual through different subjects (e.g., knowledge and skills theoretically learned in specialty courses will be developed and implemented during the internship).

*The higher education institution continually revises and improves the teaching process on the basis of evidence on the achievement of the intended learning outcomes (for example, tests, seminar papers, presentations, etc.).*

The Polytechnic hasn't established a systematic and sustainable process for collecting regular and content-rich feedback about the students'/graduates' coping with the labour market. Therefore, according to the occasional information from the stakeholders, the Polytechnic doesn't have a clear overview of the improvement needs.

The syllabuses can be changed only once per year. Teachers can recommend what to change, but they can't do the changes themselves and must wait the approval from the committee. They are allowed to choose and change study methods and re-focus the content.

Polytechnic can get some information about the achievements of LOs through the appropriate student assessment. Students' achievements are assessed according to the general requirements specified in the Polytechnic's procedures. Different lecturers can choose different assessment methods, but still, the variety of assessment methods is small. Most common assessment method is written examination (as a test), but it is good that some teachers use also other assessment methods as solving the cases, presentations of the given topics, essays, home assignments etc. Assessment criteria indicate mostly the formal requirements needed to pass - LOs and study content-oriented criteria should be used in student assessment. Although students said that they get enough feedback about their results, if they ask for that, the formative evaluation should be clear and relevant part of the study methodology of every subject. There is no

evidence that the Polytechnic collects and analyses the assessment results (grades) to get information/data according to which the improvements could be made in the study process and methodology (e.g. If the grades are too high in general in some particular subject, then the syllabus and teaching methods and criteria must be revised to understand whether the LO's are too easy for the study level or assessment criteria are too low or some other mistakes are made in the study process and in teaching methodology.)

### Recommendations for improvement

- Variety of assessment methods should be bigger and more in line with the learning outcomes (e.g. skills should be assessed through their application not through written multiple-choice test)
- The Polytechnic should support and assess the application of the principles and requirements of outcome-based learning in every course.
- The Polytechnic should work out and implement the system of collecting and analysing of the student assessment results in order to improve the study process and methodology.

### Quality grade:

Minimum 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

*Development activities related to study programmes are carried out systematically and regularly, involving various stakeholders.*

The Polytechnic has established the Regulation on the Procedure for the Advancement of Polytechnic Programmes (*Pravilnik o postupku unapređivanja studijskih programa Veleučilišta Marko Marulić*), which describes the requirements, responsibilities, and process of the study programme development. The process takes place once per year, and according to the regulation, different stakeholders can initiate the change/development process. At the same time, there is no necessity (and nobody has the responsibility) to open the discussion/negotiation for the potential or regular development. If someone would like to change something, then he/she can make suggestions (if the change concerns less than 20% of the curriculum), but if no one initiates the change, then the curriculum can be fixed for many years. According to the feedback from the Polytechnic representatives, there are really few recommendations

for the changes from the academic staff. The Polytechnic involves the employers and local authorities to the study programme development process through the Economic Council of the Polytechnic, which is new and worthy of recognition initiation, but has not been fully implemented.

*Planning and proposing new study programmes include an analysis of justification for delivering a study programme, resources and alignment with the strategic goals at the local and regional level, and other needs of society.*

The Polytechnic hasn't opened new study programmes since 2013. For now, the Polytechnic has initiated the new study programmes. The new programmes are developed by the Ordinance on the Procedure of improvements of Study Programmes of the Polytechnic. Two new study programmes are under preparation for undergraduate professional studies in biotechnical sciences, the field of agriculture, and specialist graduate professional study in biotechnical science, the field of food technology. Since those are in the preparation phase, are not confirmed by the authorities and weren't introduced for the Expert Panel, this Report can't assess their accordance with the requirements.

*The higher education institution publishes up-to-date versions of study programmes.* The latest versions of study programmes are submitted to the Directory of study programmes (MOZVAG), to the Higher Education Institutions Information System (ISVU) and are available on the official website of the Polytechnic. At least the versions which are published on the Polytechnic webpage are quite simplified and consist only of a set of syllabuses – the general information (total number of credits, level of education, the main aim and LOs of the curriculum, etc.) is missing.

*The higher education institution records the changes to study programmes and analyses their fitness for purpose.*

There is no joint formal, written, and recorded collection of the recommendations made by the stakeholders (incl. teachers) as the input for the study programme improvement. The decisions about the accepted proposals are shortly brought out in the minutes of the Expert Council of the Polytechnic. After the decision of the Expert Council of the Polytechnic of changes to the study programmes, the administrative staff take in the changes to the study programmes and publishes those in above-mentioned channels. There is no mechanism used in the Polytechnic to evaluate the efficiency and effectiveness of implemented changes.

## Recommendations for improvement

- The Polytechnic should map the general sources (incl. stakeholders) in order to get at least annually information about the need for changes in the study programmes.
- The Polytechnic should continue and improve the system of collecting and using appropriate feedback from the stakeholders to be used for the development of the study programmes.
- The study programme template should include the general description and the structure of the study programme.
- The Polytechnic should motivate the academic staff to improve and update the syllabuses and through that also the study programmes in general.

### Quality grade:

Minimum level of quality

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

### Analysis

*The higher education institution allocates ECTS credits in accordance with the actual student workload, based on the analyses of feedback from stakeholders in the teaching process, or other procedures.*

According to the study programme of Commercial Business with the Entrepreneurship, there are some mismatches between the study programme provided in the Polytechnic webpage

(<https://www.veleknin.hr/veleknin/web/index.php/eng/Study-programmes/Commercial-Business-with-Entrepreneurship/Studijski-program/Trgovinsko-poslovanje-s-poduzetnistvom-studijski-program>) and the information which was given (in paper) during the site visit – the distributions of contact hours by study forms (P, V, S) are different concerning quite a many courses (e.g. *Osnove poduzetništva* – in paper 30+30+0, but webpage 30+0+15; *Pravo društava* – in paper 30+25+5, but webpage 20+20+20, etc.) <https://www.veleknin.hr/veleknin/web/index.php/eng/Study-programmes/Commercial-Business-with-Entrepreneurship/Studijski-program/Trgovinsko-poslovanje-s-poduzetnistvom-studijski-program>)

Also, the ECTS allocation between the teachers seems to be a problem, considering that one teacher teaches for the same students too many courses (e.g. in Commercial Business with Entrepreneurship study programme one teacher teaches 6 courses, in total 36 credits, which is 20% of the study programme). The Expert Panel understands the problem of the small Polytechnic and need for finding the workload for the full-time teachers, but from the other hand the use of the same teachers for many courses may

raise some critical problems in study quality – small motivation and interest from the student side, overlapping topics, little variety of study methods, etc.

The students find the studies to be executable, and are sure that it is not too easy to learn at the Polytechnic. Since most of the syllabuses don't include enough information about the students' home assignments and other individual work expected to be done outside the classroom, there are no bases to assess the students' workload.

*Students are provided with feedback on the results of the analysis of gathered information and the implemented changes. Part of ECTS credits in the study programme is gained in practical teaching.*

The Polytechnic values the practical teaching and supports teachers to use different practical teaching methods. Also, the students highly appreciated the teachers' readiness to use different practical study methods in their classes e.g., company visits, field visits, real-world cases, visiting lecturers, etc. The Polytechnic has to find more possibilities to equip some laboratories for the students to learn and practice new skills in a controlled environment.

### Recommendations for improvement

- To include the descriptions of home assignments (and other expected individual work of the students) with the estimated time to the syllabuses and/or performance plans to understand the students' workload, assess the complexity of the assignment and improve the study methods and the level of the learning outcome if necessary.
- The number of ECTSs/courses taught by the same teacher for the same group must be justified and reasonable concerning the study quality and students' motivation.

### Quality grade:

Satisfactory level of quality

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

### Analysis

*The higher education institution allows for learning and obtaining new skills through student practice.*

The main aim of the internship for the student is to apply the knowledge and skills which were collected at Polytechnic, in real organisations and workplace. The students get new experience in the field of company/institution's work organisation and in working in a real company. Depending on the internship company activity field, size, and other characteristics, the student can do both - apply old skills and achieve new ones.

*Student practice is an integral part of study programmes and is organised outside the higher education institution, in cooperation with the labour market.*

The Polytechnic has a good relationship with local companies and the labour market in general, and many of the partners are already connected with the Polytechnic for years. Those companies not only offer internship places but also hire the student for a full-time job if the student is competent. Through the alumni and previous good experiences, the Polytechnic expands the network of internship partners. Although the internship has a different length in different study programmes, it is linked with the previous courses and the general structure of the study programme. The majority of placements take place in Šibenik-Knin County in various organisations (e.g. agricultural holdings, agricultural and food sector, state institutions, and institutions of the local and regional government, etc. The Polytechnic also enables students to have an internship abroad, and the students can apply for Erasmus+ support for that. The internship is obligatory for full-time students and unemployed, part-time students.

*Student practice is carried out in a systematic and responsible manner, ensuring the achievement of intended learning outcome regarding student practice.*

In undergraduate study programmes, the student practice takes place in 6th semester, and the internship process always starts with the information seminar where the practice supervisor/coordinator introduces the main aim, expected LOs and the process of the practice. It is the student's responsibility to find the company for an internship, but the Polytechnic and coordinator will recommend the place if the student needs help. There are three types of documents regulating and describing the internship:

1. General guidance of the internship (*Uputnica za stručnu praksu*)
2. Assessment form for the company's supervisor to evaluate student's achievements during the internship (*Anketa o završnoj stručnoj praksi*)
3. Final internship report written by the student to describe the achievement of LOs during the internship.

Although the final report of the internship should show whether the student has achieved the LOs, report mostly focus on describing the tasks fulfilled by the student during the internship. Supervisors from company side also need better guidance what are the aim and LOs of the student practice, what are the expected tasks to give for the student, what are the requirements for passing the defence etc.

### Recommendations for improvement

- To assess whether the working students have achieved the LOs of the internship, the proper RPL (recognition of prior learning) principles must be used

- Provide an instruction/document for the company supervisors about the aim and LOs of the internship, assessment criteria, list or examples of suitable task etc.

#### Quality grade:

Satisfactory 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

*The criteria for admission or continuation of studies are published.*

As stated in the Self-evaluation, the Marko Marulić Polytechnic of Knin publishes all the criteria for admission or continuation of studies on its website. Admission to all study programmes is prescribed by its Statute and, depending on the type of study, the Ordinance on studying for full-time and part-time students in undergraduate professional studies and a specialist graduate study programme.

*The criteria for admission or continuation of studies are consistently applied.*

By talking with the management, the Expert Panel confirmed the information from the Self-evaluation on the application of criteria for the admission and continuation of study. The Polytechnic's Expert Council makes the decision on the conditions and procedures for student enrolment, as well as on the cost of study for each academic year. This information is publicly available and published on the Polytechnic's website in a timely fashion. The conditions that must be met in order to enrol in a higher year are thoroughly checked by the Student Office. Students enrol at the Polytechnic through the State Matura, and that is the only method that is used.

*The criteria for admission or continuation of studies ensure the selection of candidates with appropriate prior knowledge, which is aligned with the requirements of the study programme.*

As is written in the Self-evaluation, students enrol at the Polytechnic through the State Matura. Results from the Matura and high school grades enable the Polytechnic to evaluate the candidate's ability to continue their education. During the discussions with the Dean and the management, the Expert Panel found out that the Polytechnic was cooperating with the secondary school which most students come from. This

cooperation includes the secondary school adjusting its programme in order to better prepare potential students for studying at the Polytechnic. The analytical data that was available to the Panel showed that the candidates' grade average was rather low; the management further admitted to having trouble with attracting students, which is clear from the decreasing number of students year after year. The Expert Panel believes that the Polytechnic needs new methods of attracting a larger number of students. It should find out what is it that attracts students and what are the conditions on the labour market, and adjust their programmes and opportunities they offer accordingly.

*The higher education institution has effective mechanisms for recognising prior learning.*

During the meeting with the students, the Expert Panel talked to one student who transferred from another higher education institution. This student said that the Polytechnic recognised all exams that were similar to courses at the “Marko Marulić” Polytechnic in Knin.

### Recommendations for improvement

- Introduce new methods for attracting a bigger number of students.
- Introduce systematic monitoring of the quality of incoming students based on indicators that would be better than the high school grade average and the State Matura results.

### 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

*Procedures for monitoring student progress are clearly defined and available.*

The Self-evaluation states that the Polytechnic monitors student progress through the ISVU information system, but there are no formal ways of monitoring within the HEI itself. The Expert Panel thinks that the introduction of formal methods of monitoring student progress would be an important step that would enable the HEI to adjust its programmes and learning to all students. New formal methods of monitoring are also extremely important in the context of unsatisfactory pass rates between the first and the second year of study, which is obvious from the tables in chapter 3 of the Analytical supplement.



*The information on student progress in the study programme is regularly collected and analysed.*

As is written in the Self-evaluation, the information on student progress is collected and analysed at the end of each academic year, and used to regulate student status in accordance with the provisions of the Regulations on Study. The Polytechnic also has methods for awarding best students in accordance with the Regulations on awards and acknowledgments at the Polytechnic "Marko Marulić" in Knin. The Expert Panel thinks that the data should be collected and analysed more often, because that would enable a quicker reaction at the moment a problem arises. The Panel further believes that it is necessary to establish a department for each study programme at the Polytechnic that would collect and analyse information for particular study programmes. The collected data on student progress should not be used only for regulating student status, but also as quality indicators that should be monitored on the level of bodies in charge of teaching and learning quality at the Polytechnic.

*The higher education institution ensures adequate mechanisms for analysing student performance and pass rates, and initiates necessary actions accordingly.*

According to the Self-evaluation and the discussions with the Dean and the management, the Polytechnic collects data at the end of each year, but that is not adequate for getting sufficient data that could help students express their dissatisfaction and the need for change. Expert Panel thinks that the Polytechnic should establish a department for tracking and analysing data on student progress multiple times per year. It should also track and analyse information connected to students at different points during study, e.g. admissions, graduations and drop-outs. The Polytechnic has a significant number of students who drop out and needs to investigate this problem in order to find a solution and create new opportunities for attracting students.

### Recommendations for improvement

- Introduce a procedure for regular monitoring of student progress and have that data analysed by bodies in charge of teaching and learning quality.
- Ensure a person/department at the Polytechnic that would provide expert help to students in relation to problems with student pass rates and their integration at the Polytechnic, as well as provide expert advice to all other student questions. The current mentoring program involving teachers provides only partial support.
- Introduce measures and/or activities for improving pass rates and student retention in order to decrease student drop out.

### Quality grade:

Unsatisfactory level of quality

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

#### **Analysis**

*The higher education institution encourages various modes of programme delivery, in accordance with the intended learning outcomes.*

As is written in the Self-evaluation, the Polytechnic organised workshops on learning outcomes for the purpose of familiarising the teaching staff with how learning outcomes should look like and how they can make their lectures more innovative. The Expert Panel received information from both students and teachers that the teachers use different methods of teaching that encourage interactive teaching and alternative ways of learning. Some of the examples are using video content for learning, pop quizzes for encouraging participation, and discussion on the presented problem. The Panel further got information that different methods of learning are used and that students take part in some projects, but such methods are mostly used at the undergraduate professional studies in the biotechnical area, where students acquire competencies and experience through practical work in laboratories as well as through field work that is organised on selected agricultural farms and other facilities. Such content and learning methods are missing from the economy study programmes.

*The HEI continually evaluates and adapts teaching methods and different modes of programme delivery.*

As is written in the Self-evaluation and confirmed in meetings with students and teachers, the Polytechnic carries out surveys on student satisfaction with the lectures, and tries to use survey results to introduce changes. The system of surveys and their analysis is prescribed by the Regulations on Quality Assurance Assessment Process by students at the Marko Marulić Polytechnic of Knin. Survey results are analysed, and teachers and associates who get the grade 3.0 two or more times are subject to corrective measures prescribed by the Regulations of Procedure on the Evaluation of Teaching process and Courses by Students. Analysis of survey results show the parts of the teaching process that should be improved in order to achieve the desired learning outcomes. However, there is no evidence for the evaluation results being used for improving teaching methods or ways of delivering lectures. The evaluation of teaching activities and methods could also include additional forms such as peer review, self-assessment, internal audit, external evaluations, etc. It would be good if the Polytechnic would implement some of these methods of evaluation in order to raise the quality of learning and teaching.

*Teaching methods are adapted to a diverse student population.*

The Self-evaluation states that the Polytechnic conducts different measures for adjusting teaching methods, which was confirmed at meetings with students and teachers. Part-time students and students who have jobs have their lectures and exams in the afternoons so that they can meet all their obligations in a timely and pressure-free manner. The consultation hours are also held in two terms, in the morning and in the evening, so that everyone can get help with classes, learning or anything else. In the context of adjusting teaching to student needs, one advantage of the Polytechnic are small student groups and excellent communication between students and teachers, which enables quick understanding of the students' needs and facilitates adjustment of the teaching process.

*The higher education institution ensures the use of state-of-the-art technologies to modernise teaching.*

During the site-visit to the Polytechnic and other facilities (student dorm, library, vineyard where students have their professional practice), the Expert Panel had a chance to see the equipment used by students and teachers. The more advanced technologies included laboratory machines used by students in class and professional practice, computers in the IT room, and projectors and laptops in all lecture rooms for including video content in the teaching process. Teachers and students said that one of the most important innovations for teaching was the Moodle system that both groups used for communication, various announcements and for publishing teaching materials. All stakeholders expressed their satisfaction with the availability of technology in the teaching process. The Panel recommends that the Polytechnic keep up with the good practice, and continuously develop and adjust the system to contemporary technological achievements.

*Available and committed teachers contribute to the motivation of students and their engagement.*

In the meeting with students, the Expert Panel heard that the teachers were very approachable and that they helped the students any way they could. Students stated that the teachers were always available in consultation hours or through Moodle, that they motivated them in class and helped them achieve better results and learn more. The students also talked about how the teachers helped them with exams they had trouble with by organising additional lectures and giving them advice during consultation hours. Students are involved in different projects and are co-authors of papers. A big advantage of the Polytechnic are small student groups and good connections between all stakeholders in the system. Still, the fact remains that many students drop out or do not meet the criteria for advancing into the second year (tables in chapter 3 of the Analytical supplement). The Polytechnic should consider introducing additional activities to

motivate and engage students so that they would stay and finished their studies in accordance with the recommendations from the previous standard.

*The higher education institution encourages autonomy and responsibility of students.*

Students of the Marko Marulić Polytechnic said at the meeting that the HEI encouraged them to engage in individual activities of helping people in the community by organising various humanitarian actions to help people who need it the most. Students also showed autonomy and responsibility by arranging their own professional practices, which are latter approved by the teachers. Course syllabi do not include enough information on individual tasks and obligation that students must meet in order to achieve the total number of ECTS credits, but students said during the meeting that they were encouraged to work individually.

#### Recommendations for improvement

- Continuously improve teaching methods by introducing new methods and ways of teaching, especially in the economy and commerce study programmes
- Introduce other methods for assessing the teaching process (not just student surveys), and monitor student performance and engagement during studies for the purpose of improving their pass rates and performance.
- Check student satisfaction with the learning methods and adjust lectures according to the results.

#### Quality grade

Satisfactory level of quality

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

#### Analysis

*The higher education institution provides guidance on studying and career opportunities to students.*

As is stated in the Self-evaluation, the Polytechnic provides students with guidance on studying and career opportunities through the Student office and heads of the professional practice at each study programme. Student office communicates with students about their lower performance results and reminds them of their obligations. The heads of professional practice help students choose the company for their professional practice based on their interests, and advise them about further education and training as well as the possibility for employment after graduation, which was confirmed in conversation with students. The Polytechnic supports its students, but does not have a formal body in charge of these obligations. Since the Polytechnic is very

focused on the needs of the labour market, the Expert Panel feels that it should establish a career centre in order to prepare students for the labour market.

*The higher education institution has established functional procedures for student career guidance, psychological and legal counselling, and support to students with disabilities, support in outgoing and incoming mobility and library and student administration services and students are informed about them.*

The Polytechnic does not currently have a career centre, which is why the students have to get career advice from several different people throughout the Institution. Career advice is currently provided by teachers and mentors. Psychological counselling for students does not exist, but students have the support of mentors and teachers in meeting their obligations. This form of support is good, but it is not sufficient because teachers do not have the necessary competencies for providing counselling on psychological and legal issues. The Polytechnic is willing to provide support to students with disabilities in class, but the building itself is not adequate, which became obvious at the site visit. As for the support for exchange students, it is provided by the Erasmus coordinator, but the HEI needs to ensure additional support and personnel. The Polytechnic has an agreement with the City Library by which students become library members upon enrolment, and both institutions cooperate on providing the necessary literature for students.

The Expert Panel heard from the students that the teachers informed them about the available support services during introductory lectures, and throughout the year when students come to them for help. Students also have access to all the necessary information through the Moodle system.

*Student support is tailored to a diverse student population (part-time students, mature students, students from abroad, students from underrepresented and vulnerable groups, students with learning difficulties and disabilities, etc.).*

The Polytechnic supports part-time students and students who have jobs by adjusting the schedule so that the lectures and exams do not interfere with their work. Students from abroad receive support with the organisation of their arrival at the Polytechnic as well as with their stay there. At the meeting with the teachers, the Expert Panel received information that lectures and exams are adjusted to the needs of students with difficulties and disabilities, and that they also organise consultations and additional lectures to help those students acquire the necessary knowledge. Students from underrepresented and vulnerable groups are given financial assistance for studying (scholarships) and accommodation in the student dorm. The Polytechnic has scholarships for students with a lower economic status. The Expert Panel thinks that the Polytechnic should create infrastructure for supporting all these groups of students so

that it could meet their needs more quickly (e.g. adjust the facilities for students with disabilities, ensure psychological counselling for students).

*The higher education institution employs an adequate number of qualified and committed professional, administrative and technical staff.*

The Polytechnic employs an adequate number of professional and administrative staff. According to the Dean, the Polytechnic takes care of their employees' development in order to raise the standard of quality.

#### Recommendations for improvement

- Establish a career centre that would provide all necessary guidance
- Offer psychological and legal counselling for students.

#### Quality grade

Satisfactory level of quality

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

#### Analysis

*The higher education institution monitors various needs of students from vulnerable and under-represented groups.*

As is stated in the Self-evaluation, the Polytechnic does not have an institutional framework with formal procedures, and this is something that the Expert Panel thinks should be developed in the future. The Polytechnic meets the student needs on an individual basis, which has been efficient because the Institution is quite small and thus well-connected. The Regulation of Study prescribes certain measures, but there are no prescribed formal procedures, which should definitely be introduced. The Self-evaluation lists some plans for identifying and increasing the proportion of graduate students of under-represented and vulnerable groups. Still, there is no systematic monitoring and reporting on activities, which is why it is recommended to introduce measures for continuous monitoring and improving of all processes in order to answer the needs of students from vulnerable and under-represented groups. According to the Self-evaluation, the Polytechnic supports students from vulnerable and under-represented groups, which could motivate such students to continue studying. However, the Polytechnic does not have the infrastructure, and needs to make changes to the facilities in order to satisfy all conditions and attract interest from students from the mentioned groups. The Polytechnic does not have any students with disabilities because, even though the student dorm is fully equipped, the building of the Polytechnic does not

meet the conditions for accommodating such students. The HEI should install a ramp for people with disabilities at the building entrance as well as elevators that would enable such students to get around the Polytechnic; special toilets etc. should also be provided. The Polytechnic should plan investments in the adaptation of its spatial resources for students with disabilities.

*Teaching process is adjusted to the individual needs of students from vulnerable and under-represented groups.*

The teachers told the Panel that the duration of exams is adjusted to students with reading difficulties, but other than that, there are no significant adjustments of the teaching process. The Polytechnic covers the cost of field work for students with a lower economic status so that all students could participate in those activities. Since the Polytechnic is located in an area with a large number of potential students with lower economic status, the recommendation is to offer support via expert counselling (as described in the previous standards) and define measures for continuous monitoring of their performance.

*The higher education institution invests resources in the support to students from vulnerable and under-represented groups.*

According to the Self-evaluation, the Polytechnic awards three scholarships in the amount of HRK 10,000.00 for students with a lower economic status on the basis of a call published on their website. The Expert Panel's opinion is that additional resources should be invested in building adaptation and adjustments for students with disabilities. Current conditions do not meet the needs of such students, which is why the HEI does not have any.

#### **Recommendations for improvement**

- Introduce formal procedures for monitoring the needs of students from vulnerable and under-represented groups.
- Plan the adaptation of spatial resources in accordance with the needs of students with disabilities, and ensure all necessary conditions for this group of potential students.

#### **Quality grade**

Minimum level of quality

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

## Analysis

*Students are informed about the opportunities for completing part of their study abroad.*

The HEI regularly informs students about contracts it signed with foreign higher education institutions on its website and announcement board, as well as about the possibility to go to companies or agricultural companies and family farms. The Erasmus coordinator said that he and some former exchange students visit lectures and hold presentations on Erasmus programme and its possibilities and benefits. Furthermore, all teachers talk about mobility in the first, introductory lecture. Nevertheless, information from tables in chapter 3 of the Analytic supplement shows that the students do not really use the possibility of going abroad. That is why it is recommended to increase the efforts of promoting Erasmus and other mobility programmes, so as to increase the number of students who use the opportunity to acquire international experience.

*The higher education institution provides support to students in applying for and carrying out exchange programmes.*

The Polytechnic provides support to students in filling out application forms, organising the accommodation and the realisation of programme. The person in charge of these tasks is the Erasmus coordinator, who takes care of contacting foreign HEIs that the students want to visit, and helps them with the organisation and financial support (grants). Before they go on exchange, students have to take English lessons to help them with the communication, and they have consultations concerning the countries and institutions they are going to, the organisation of studies, and cultural similarities and differences. Even though students confirmed these information at the meeting, just a few of them have decided to participate in the mobility programme. The Expert Panel recommends the introduction of new methods of encouraging students to participate in exchange programmes. More students might decide to take a chance with the programme if they heard the experiences of their colleagues who have already been abroad.

*The higher education institution ensures the recognition of ECTS credits gained at another higher education institution.*

According to the Erasmus coordinator, the Polytechnic checks the study programme of HEIs that students are interested in beforehand, and everything is organised with a view of recognising all ECTS credits acquired at a foreign HEI.

*The higher education institution collects information on student satisfaction with the quality of HEI's support regarding practical matters of student mobility.*

The Polytechnic does not have formal methods for collecting information on student satisfaction with student mobility; the only information it gets is what the student tells the staff during the organisation of the trip. The Expert Panel thinks that this is a very



important factor for the development of student mobility, and recommends that the Polytechnic takes the necessary steps for collecting and analysing information in order to enable the development of the entire system of student mobility.

*Students gain competencies required for the employment in an international environment.*  
The Erasmus coordinator claims that students acquire various competencies that can prepare them for working in the international environment by working on different projects and participating in conferences. The Panel suggests bringing more guest lecturers from abroad in order to introduce students to different approaches and practices. Also, when updating study programmes, the Polytechnic should consider introducing more topics that would help students understand the international environment.

#### Recommendations for improvement

- Introduce a procedure of analysing student satisfaction with the Polytechnic's support with the organisation of mobility schemes.
- Introduce additional ways of motivating students to participate in programmes for international exchange.
- Enable students to acquire specific competencies for working in an international environment (e.g. organise more guest lectures by foreign experts, cover more topics connected to the international context within study programmes, encourage teachers' international experiences, etc.).

#### Quality grade

Satisfactory level of quality

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

#### Analysis

*Information on the opportunities for enrolment and study is available to foreign students at Croatian higher education institution.*

The Polytechnic does not have an office for foreign students and the Erasmus coordinator said that they currently did not have measures for promoting the HEI with foreign students except the ones conducted by the students' home institutions (institutions they signed Erasmus contracts with). The Expert Panel's opinion is that it is necessary to enable a better and simpler approach and provide more information to foreign students on studying at the Polytechnic, as well as introduce new methods of

advertising and attracting students. The Polytechnic should also provide more information on its procedures and ways of functioning on its English language website.

*The higher education institution provides support to foreign students in application and study at the Croatian higher education institution.*

The discussion with the Erasmus coordinator yielded information that the Polytechnic supports foreign students with the paperwork and necessary documents, but also with their accommodations and adjustments to a new surroundings and culture. Foreign students also get help from their local colleagues who know their language and give them additional help with the adjustments.

*The higher education institution collects feedback on satisfaction and needs of foreign students.*

From the Self-evaluation and the discussion with the Erasmus coordinator, the Expert Panel concluded that the Polytechnic does not monitor the satisfaction of Erasmus students, and does not have procedures nor staff that would do this. The only information that the Polytechnic has is what foreign students give their home institutions upon their return. However, the communication between teachers and other staff with the exchange students is open, and all problems are directly communicated and dealt with. The Expert Panel feels that the Polytechnic should create infrastructure (establish a department or a person) responsible for monitoring foreign students and their needs, and collect and analyse data so that it could develop and attract more incoming mobility students.

*Foreign students have the opportunity to attend classes delivered in a foreign language (English).*

Foreign students cannot listen to courses in the English language, and can only go to consultations and do some assignments to earn ECTS credits and meet the requirements at their home institution. It is necessary to make additional effort to motivate teachers to strengthen their language competencies so that they can deliver their lectures in foreign languages, especially in English. The management of the Polytechnic should plan and carry out activities with the aim of developing of entire study programmes in the English language.

### **Recommendations for improvement**

- Introduce new methods of advertising the exchange programme for foreign (incoming) students.
- Introduce a procedure for monitoring foreign students' satisfaction with the support they receive from the Polytechnic, the exchange process itself and their stay at the Polytechnic.

- In the future, introduce lectures in the English language (the management should motivate teachers to strengthen their own competences and start delivering classes in English and, in the long run, plan the delivery of entire study programmes in English).

### Quality grade

Minimum level of quality

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

#### Analysis

*The criteria and methods for evaluation and grading are clear and published before the beginning of a course.*

Criteria and methods of assessment are part of the syllabi, and are published on the Polytechnic website and on the Moodle application for each individual course. At the meeting with the Expert Panel, the students said that the assessment criteria were clear and presented and explained in the introductory lecture; they also said that they could receive feedback and explanation for their grade after each exam if they came to consultation hours.

*The criteria and methods for evaluation and grading are aligned with the teaching methods used.*

During the site-visit, the Expert Panel had a chance to study the learning outcomes acquired by students. The learning outcomes are not well defined, but the assessment criteria and methods have been harmonised with the teaching methods. Lecturers use different assessment methods for different tasks, but the students said that they understood the criteria and knew why they received the grade they did. Still, documentation analysis has confirmed that some courses have only the written exam as a method of evaluation and grading, which should definitely be supplemented with other methods for evaluating student achievements.

*The higher education institution provides support to the assessors in the development of skills related to the testing and assessment methods.*

As is stated in the Self-evaluation, lecturers took part in workshops on defining learning outcomes and student assessment. However, the Expert Panel noticed that this knowledge was not really used in the development of learning outcomes and syllabi, because they mostly just made some minimal changes to the old syllabi. The meeting with the Dean showed that it was up to the teachers to decide if and when they take part

in a workshop or training programmes, for which they receive financial support from the Polytechnic. The HEI should ensure a more systematic and better training for its teachers in the area of learning and teaching quality.

*The higher education institution ensures objectivity and reliability of grading.*

According to the Self-evaluation, the Polytechnic does not assess the grading process, but everything is done according to the Regulations on Assessment. In case students were not satisfied with their grade, they have the right to re-take the exam in front of a committee in order to ensure grading objectivity.

*The evaluation procedures take into account special circumstances of certain groups of students (modifying examination procedures to suit e.g. students with disabilities), while at the same time ensuring the achievement of intended learning outcomes.*

The Self-evaluation stated, and the discussion with the students and teachers confirmed that the Polytechnic makes accommodation for groups of students with special circumstances. Part-time students have different exam terms which do not clash with their work obligation, while students with some form of difficulties are allowed more time to take an exam, if they need it. Adjustments of exam technology has not yet been implemented, but they are considered for some future time.

*Students receive feedback on the evaluation results, and if necessary, guidelines for learning based on these evaluations.*

During the meeting with the students and teachers, the Panel was told that both groups were in continuous contact. After an exam, students receive their results over Moodle, together with short explanations and a suggestion to come to consultation for more information. Students said that they use consultation if they need them, and that they receive more detailed information on their exam and advice for studying if they have to take the exam again.

### Recommendations for improvement

- Introduce the assessment of grading.
- Improve learning outcomes in accordance with the needs of contemporary economy and the labour market, and adjust the teaching and grading methods accordingly.

### 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 completion of their studies, students are issued appropriate documents (diploma and Diploma Supplement).*

Upon the completion of their studies, the Polytechnic issues a diploma in the Croatian and English language whose content is harmonised with the current legislation.

*The higher education institution issues the Diploma Supplement in Croatian and English, free of charge.*

The Polytechnic issues the diploma supplement in the Croatian and English language in accordance with the Act on Scientific Activity and Higher Education, the Polytechnic Statute and the Regulations on the Contents of Diplomas and Diploma Supplement. This information is based on the Self-evaluation and confirmed at the meetings with the Dean and the students.

#### **Recommendations for improvement**

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#### **Quality grade**

High level of quality

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

#### **Analysis**

*The higher education institution analyses the employability of its graduates.*

As is stated in the Self-evaluation, the Polytechnic analyses the employability of its graduates by using the Questionnaire on businessmen's satisfaction with professional studies at the Polytechnics. This questionnaire serves to keep track of the interest in study programmes and the justifiability of study programmes, while alumni employability is tracked through the data provided by the Croatian Employment Service. The Polytechnic does not collect information from former students on their employability, which the Panel sees as a good opportunity to gather important data that can contribute to the Polytechnic's development. Furthermore, survey results should be analysed and used for improving quality within the framework of bodies in charge of quality assurance. The Polytechnic should systematically monitor data so that it could determine trends and the efficiency of its measures for improvement.

*Admission quotas are aligned with social and labour market needs and available resources.*

According to the Self-evaluation, the Polytechnic determines admission quotas for each academic year on the basis of Recommendations for Educational Policy and Studies Policy, and Recommendations for Educational Policy and Scholarship Policy for the Šibenik - Knin County. In accordance with the recommendations, admission quotas have not increased and have been kept static for a number of years. The Polytechnic has been experiencing a continuous decrease in the number of enrolled students, and should therefore re-evaluate the existing study programmes in the context of harmonisation with changes on the labour market.

*The higher education institution informs prospective students about the opportunities to continue education or find employment after graduation.*

As is stated in the Self-evaluation and confirmed in discussion with the alumni and the teachers, the students are kept informed by teachers at lectures, by professional services, and by mentors for professional practice and final papers. Students are given information on their potential continuation of studies at the Polytechnic, or they get help with choosing the field in which they can one day find employment. As was already suggested in the previous standards, the establishment of a career centre would elevate these activities to a higher level.

*The higher education institution provides students with support regarding future career planning.*

The students and the alumni told the Expert Panel that they get help and advice from their mentors and heads of professional practice. Teachers also gave a lot of help to students, even after graduation, regarding the labour market or with developing ideas for products or services.

*The higher education institution maintains contacts with alumni.*

The discussion with the alumni showed that they did not meet regularly, but were personally contacted by the Polytechnic and maintained a relationship in that way. It was also mentioned that former students often help the Polytechnic and current students by enabling cooperation with their companies, in which students can acquire competencies as well as potential employment after graduation. The Polytechnic has great connections with the local and regional community, and is in regular contact with representatives of employers and different associations that have shown interest in cooperating with the Polytechnic in all areas.

## Recommendations for improvement

- Introduce systematic collection of data on former students and monitor their career performance within the bodies in charge of quality assurance of the career centre.
- Analyse the data from the existing surveys for employers and alumni within quality assurance bodies, and define measures for improvement on the basis of these analyses.
- Formalise support procedures for the planning of students' future careers.
- Improve the communication with the alumni club and provide support for organising more meetings and activities with the aim of networking and promoting Polytechnic's programmes and other services.

### Quality grade

Minimum level of quality

## IV. Teaching and institutional capacities

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

#### Analysis

*The number and qualifications of teachers (election in the appropriate field and/or area) are appropriate for the delivery of study programme and achievement of the intended learning outcomes and conducting scientific activity.*

Polytechnic "Marko Marulić" in Knin has 25 permanently employed teachers, out of which one teacher is only employed part-time at the HEI. All teachers are elected into teaching grades: 3 college professors, 14 senior lecturers and 8 lecturers (MOZVAG, table 4.1b). Out of 25 fully employed teachers, 4 are elected in the area of natural sciences, 10 in the area of biotechnical sciences, 7 in social sciences, 1 in biomedicine and health, 1 in the humanities, 1 in technical sciences and 1 in the interdisciplinary area (MOZVAG, table 4.3).

Professional and specialist graduate studies conducted at the Polytechnic are based on the biotechnical area of science (Karst Agriculture – Plant Production, Karst Agriculture – Animal Husbandry, Food Technology) and the area of social sciences (Commerce with Entrepreneurship, Economic and Regulatory Framework of Entrepreneurship), and most of the teachers are elected into grades in those areas. All study programmes also include the general education component, which is covered by teachers who are experts in that area.

In the last 5 years, the Polytechnic "Marko Marulić" in Knin hired 5 new teachers, most of them during 2016 (3 teachers) (MOZVAG, table 4.2).

Teachers' expertise is appropriate for conducting the existing professional and specialist graduate study programmes. Still, it would be good to increase the number of teachers elected into the grade of college professors, but also to hire assistants.

Furthermore, the HEI has a rather big number of technical, administrative and assistant staff (47%) in relation with the permanently employed teaching staff (53%), (MOZVAG, table 4.1.b).

*The ratio of students and full-time teachers at the higher education institution ensures a high quality of study.*

The Polytechnic "Marko Marulić" in Knin has a teacher/student ratio between 1:10.15 and 1:18.95, which is significantly lower than the maximum ratio of 1:30, prescribed by Ordinance on the Content of a Licence and Conditions for Issuing a Licence for Performing Higher Education Activity, Carrying out a Study Programme and Re-Accreditation of Higher Education Institutions.

The percentage of permanently employed teachers' hours in the total *norma* hours by study programmes is as follows: Karst Agriculture – Plant Production 0.72, Karst Agriculture – Animal Husbandry 0.51, Commerce with Entrepreneurship 0.49, Food Technology 0.72 and the Economic and Regulatory Framework of Entrepreneurship 0.28. The percentage of permanently employed teachers in the total number of *norma* hours for the specialist graduate study programme Economic and Regulatory framework of Entrepreneurship is below the prescribed 0.33, which indicates a need for increasing the coverage of teaching in the mentioned study programme by its own staff (fully-employed teachers).

*Teacher workload is in line with relevant legislation and policies, regulations of competent bodies, collective agreements, etc.*

The data shows varying teacher workload with uneven distribution: 4 permanently employed teachers (out of the total of 25) have a workload higher than 540 *norma* hours (from which they are employed for between 570 and 649 teaching hours), and there are also teachers with less than 450 *norma* hours. Teachers are obliged to have consultation hours and participate in the work of committees, teaching councils workshops, seminars and other events.

To sum up, the workload of some teachers is higher, and of some is lower, than it is prescribed by the competent authorities.

*Teacher workload ensures appropriate distribution of teaching, professional and/or scientific activities, professional and personal development and administrative duties.*

Number of courses held by one teacher is between 1 and 10. From the permanently employed teachers, 10 of them have more than 4 courses (MOZVAG, table 4.4). Taking into account that some courses are taught by only one teacher, it creates an even greater



burden on them and hinders their professional and scientific activities as well as their professional and personal development.

*Teachers are qualified for the course/courses they deliver.*

Of the permanently employed teachers, 9 of them have a PhD, and one holds the degree of a Master of Science (Croatian *magistar znanosti*); six teachers are currently studying for their PhDs. Qualifications of teaching staff for the courses they teach come from their professional, educational and/or scientific experience.

#### Recommendations for improvement

- Increase the engagement of full-time teachers on the specialist graduate study programme of Economic and Regulatory Framework of Entrepreneurship.
- Decrease the number of courses taught by teachers with the aim of improving teacher and student satisfaction.
- Equalize teacher workload.
- Distribute teaching assignments so that there are 2 or more teachers for each course.

#### Quality grade

Minimum level of quality

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

#### Analysis

*The external associates have a relevant work experience.*

Polytechnic "Marko Marulić" in Knin employs 30 external associates who participate in teaching. Most of them come from research and higher education institutions (63.33%), while a smaller number comes from the business sector (36.67%). External associates are elected into scientific-teaching grades (8 teachers) or teaching grades (21 teachers), and there is also one assistant. The knowledge and experience of external experts contribute to teaching quality. However, the Polytechnic's focus is on professional study programmes, which is why it would be good to increase the number of teachers from the business sector who could teach and share their experiences.

*The external associates include the latest research, trends and labour market findings in the teaching process.*

External associates come from higher education institutions and the business sector, which helps with the implementation of the latest achievements and trends in the

teaching process. Furthermore, the HEI expects its external associates to continuously keep abreast of the latest achievements and to constantly develop and use their knowledge to improve the teaching process.

*The higher education institution encourages the participation of external associates in the supervision of final and graduation theses.*

The Self-evaluation states that the Polytechnic includes external associates as mentors of final papers, but it does not provide the number of such papers. However, during the site-visit, the Panel saw examples of good practice in which external associates were included in teaching, as well as in the mentoring of final papers (Agrotourism OPG Duvančić).

*The higher education institution encourages the organisation of professional practice in institutions in which the external associates are employed.*

Most external associates come from other HEIs, which cannot host professional practice for students. However, a smaller number of external associates comes from the business sector, and their institutions can organise professional practice. A good example of professional practice was seen in relation to the external associate Marko Duvančić, who imparts theoretical knowledge to students during class, and enables them to get practical knowledge through professional practice on his family farm.

#### Recommendations for improvement

- Increase the percentage of external associates from the business sector.
- Encourage writing final papers in the companies of external associates.

#### Quality grade

Satisfactory 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

*Teacher appointment (recruitment) procedures arise from the development goals of the higher education institution and they are aligned with the legislation and internal regulations in effect.*

Teacher recruitment is in accordance with the developmental goals of the Institution, and harmonised with the legislation and internal regulations (Act on Scientific Activity and Higher Education, Decision on the requirements for assessing teaching and scientific activities in the process of the election to teaching grades, and the Regulations on

internal organisation and systematisation of workplaces). The recruitment of full-time teachers is conducted in accordance with the Act on Scientific Activity and Higher Education and on the decision by the Ministry of Science and Education, and depends on the needs of study programmes (Self-evaluation).

*In selecting, appointing and evaluating teachers, the HEI takes into account their previous activities (teaching activity, research activity, feedback from students, etc.).*

During the academic year, teachers' work is evaluated through student surveys. However, it is not clear how scientific activity is evaluated in relation to teaching activities. It is also not clear what happens with student feedback; how do the teachers improve their teaching methods, materials and activities on the basis of student complaints?

*The higher education institution has adequate methods for the selection of the best candidates for each position.*

The employment of new teachers is done according to the needs of the teaching process, and in compliance with the general employment procedure. The Polytechnic announces a vacancy in the Official Gazette, daily newspapers, the European research area and its website. Candidate selection is done in accordance with the criteria prescribed in the Decision on the requirements for assessing teaching and scientific activities in the process of the election to teaching grades, adopted by the Council of Polytechnics and Colleges. Polytechnic's Expert Council appoints an expert panel that evaluates candidates and writes a report. A positive opinion of the expert panel is confirmed by the Field Committee of the Council of Polytechnics and Colleges, after which the Expert Council makes a decision to employ the candidate. The Polytechnic did not prescribe a procedure nor additional criteria for employing new teachers, and uses the minimal, legally-prescribed legal criteria. By introducing additional criteria for employment, the Polytechnic could emphasise excellence and ensure a more objective selection of candidates.

*Promotion of teachers into higher grades is based on the evaluation and rewarding of excellence and the HEI takes into account important achievements (such as successful projects, success in securing additional funds, supervision of final and graduation theses, authorship of textbooks / study materials, popular lectures, etc.).*

Advancements into higher grades are prescribed by the Decision on the requirements for assessing teaching and scientific activities in the process of the election to teaching grades of the Council of Polytechnics and Colleges.

In accordance with this Decision, general criteria were prescribed based on the teaching, scientific and professional activities of teachers. Hence, all advancement procedures at

the Polytechnic “Marko Marulić” in Knin are done in accordance with the regulations adopted by the Council of Polytechnics and Colleges.

*Indicators of excellence include professional and/or scientific and teaching activities.*

Criteria for assessing the excellence of teachers include their participation in teaching, published study materials and textbooks, the number of published papers, citations, participation in conferences, projects, etc. The criteria is prescribed by the Council of Polytechnics and Colleges, and the Polytechnic uses it to evaluate their teachers.

*Additional criteria for the promotion of teachers into higher grades reflect the strategic goals of the higher education institution.*

Teachers’ advancement into higher grades is one of strategic goals of the Polytechnic but, except the obligatory legal criteria, they have not adopted any additional requirements.

#### Recommendations for improvement

- Develop clear guidelines for the evaluation and benchmarking of excellence (for research, publication and teaching activities) of teaching candidates.
- Develop clear guidelines for the evaluation and benchmarking of excellence for advancement into higher grades (for research, publication and teaching activities).

#### Quality grade

Minimum level of quality

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

##### Analysis

*The higher education institution provides opportunities for the improvement of teaching competencies.*

The Polytechnic encourages the improvement of teachers’ competencies by funding their PhD studies, conference participation fees and travel expenses for scientific-professional conferences, and the publication of papers in various scientific and professional journals. Additionally, the Polytechnic organised two workshops for introducing teachers with learning outcomes. Teachers’ professional development is thus stimulated, but not their pedagogical and didactic competencies.

*The higher education institution encourages the assessment and improvement of teaching competencies based on the peer-review recommendations and the results of student satisfaction surveys.*

The Polytechnic “Marko Marulić” in Knin assesses student satisfaction with their teachers through student surveys. In the process of evaluating teachers’ competencies, the Polytechnic also takes into account the satisfaction of students, based on the results of student surveys. In addition, on the basis of the Self-evaluation as well as the discussions with the Dean and teachers, the Expert Panel has established that the Polytechnic does not use peer-reviews as a method for assessing teachers’ competencies.

*Teachers participate in mobility programmes, projects, networks, etc.*

Teachers take part in mobility programmes for the purpose of teaching and professional development. From the 25 permanently employed teachers, only 6 of them took part in mobility programmes in the last 5 year (MOZVAG, table 4.5 and 4.6), whose duration was less than 3 months. Moreover, teachers participate in scientific and other projects that also include exchanging experiences with other project partners.

#### Recommendations for improvement

- Continuously develop didactic and pedagogical competencies of teachers.
- Encourage teachers to take part in mobility programmes.
- Introduce the peer-review method for evaluating and improving teachers’ competencies.

#### 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 higher education institution plans and improves the infrastructure development, in line with the strategic goals.*

Polytechnic “Marko Marulić” in Knin invests significant efforts in ensuring that the infrastructure supports the teaching process. With that in mind, they equipped the rooms, IT rooms and laboratories. In addition, the Polytechnic also uses, but also equips,

the laboratory in the Secondary vocational school Kralj Zvonimir in Knin. Finally, the Student Centre features a multi-functional conference hall with a capacity of 200 seats, which is also used for teaching.

*The space, equipment and the entire infrastructure (laboratories, IT services, work facilities, etc.) are appropriate for the delivery of study programmes and ensuring the achievement of the intended learning outcomes.*

Teaching at the Polytechnic is carried out in 8 lecture rooms with the total area of 463 m<sup>2</sup>, 2 laboratories with 110 m<sup>2</sup>, IT rooms with 36 m<sup>2</sup> and 2 student rooms with 50 m<sup>2</sup>. This space is appropriate for the delivery of study programmes.

The laboratories are used for study programmes from the area of biotechnical sciences (Agriculture and Food Technology). In addition to standard equipment, the laboratories also feature HPLC, GC/MS, laboratory freeze dryer, etc., which enable students to work on an up-to-date analytic and technologic equipment. The Polytechnic, however, does not have a practical space for the study programme of Entrepreneurship.

*The space, equipment and the entire infrastructure (laboratories, IT service, work facilities etc.) are appropriate for the implementation of professional and/or scientific activities.*

The Polytechnic does not have a separate laboratory for scientific research. However, the equipment it does have is sufficient for scientific research in the fields of agriculture and food technology.

#### Recommendations for improvement

- Continue equipping laboratories for students' education for the purpose of improving the teaching process.
- Equip the laboratory for the study of entrepreneurship.
- Equip the space for the scientific work of teachers and students from the fields of agriculture and food technology.

#### Quality grade

Satisfactory 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

*The library and library equipment, including the additional resources, meet the conditions for a high quality of study.*

The Polytechnic does not have an adequate space for its own library, which is why it signed a cooperation agreement with the Knin City Library that has been situated in the student dorm "fra Lujó Marun" since 2017. The library buys books for students and teachers in cooperation with the Polytechnic. The library has the necessary up-to-date literature – there are more than 200 obligatory textbooks, or rather more than 1000 volumes. The library fond is continuously monitored and supplemented when needed. In order to give students access to literature, the Polytechnic has organised a space for the reading room on its own premises; it has 10 seats and shelves with literature for students. Students can also search the database in the IT room with 12 computers (Self-evaluation). During the site-visit, the Panel saw the new city library with a separate space with books for the students of the Polytechnic. When checked the library fond, the Panel determined that most of the books were relatively recent titles published in the Croatian language. This shows that the Polytechnic keeps track of publishing activities in Croatia and, when necessary, buys new books. The library fond written in English or some other foreign language is insufficient, and consists mostly of older editions. The library does not allow students nor teachers the possibility to search scientific databases, and does not have electronic books.

*The library and library equipment, including the additional resources, ensure high-quality professional and/or scientific activity.*

Considering the number of titles and the new library space, the library meets the minimal requirements of contemporary ways of studying and scientific research work.

#### Recommendations for improvement

- Draw up an annual procurement plan for books.
- Increase the fond of books in the English language.
- Give students access to electronic books.
- Enable students and teachers to search databases in the library.

#### Quality grade

Minimum level of quality

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

#### Analysis

*Financial sustainability and efficiency is evident in all aspects of the higher education institution's activity.*

Polytechnic "Marko Marulić" in Knin is a non-profit institutions that is mostly funded by the state budget. In the last 5 years, between 81.3 and 84.6% of income came from the

state budget, and covered the employees' salaries and material costs. Other income included income from students, from scientific and professional projects, laboratory services, support, etc. (Self-evaluation, MOZVAG; 4.11 and 4.12). The Polytechnic participates in a fair number of different projects, but they constitute only a small part of their income. The Dean and the head of finances explain this by saying that the projects are done by the teachers, but that the Polytechnic does not have any financial benefits, only some other non-material benefits (education, references for teachers, etc.).

*HEI manages its financial resources transparently, efficiently and appropriately.*

Polytechnic "Marko Marulić" invests significant efforts in financial sustainability and efficiency, and in ensuring that their expenses are in accordance with their budget and the Strategic plan. Annual financial reports are published on the website and contribute to the HEI's transparency (the last report available on the website is the 2017 Financial report). The financial report shows the expenses in broad strokes, but does not break them down, which would be useful for an easier tracking of the expenditure. Moreover, the discussion with the Dean and the head of finances revealed a need for more efficient cost management.

*Additional sources of funding are used for institutional development and improvement.*

Income from the state budget is sufficient for the employees' salaries and a part of basic material costs, but not for the development and improvement of quality. That is why the Polytechnic uses additional sources of funding for the purchase of equipment, staff's professional development and material costs (Self-evaluation). Additional sources of income make up a maximum of 18.7% of total income, and are insufficient for the desired development of the Polytechnic.

*Additional sources of funding are secured through national and international projects, cooperation with the industry, local community, etc.*

Additional sources of funding are ensured from scientific or professional projects, student tuition and enrolment fees, services provided by the laboratories and support from the local community (Self-evaluation). As already mentioned, the potential funding from projects is not sufficiently used.

### Recommendations for improvement

- Adjust book-keeping so as to facilitate its monitoring and transparency of costs.
- Improve cost planning and managing.
- Plan the participation in projects more carefully, and use them as a source of additional income.

### 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 research.**

### Analysis

*Teachers and associates publish an appropriate number of high-quality professional and/or scientific publications.*

The Expert Panel was presented with the figures of current publications by teachers of the Marko Marulić Polytechnic of Knin in both the scientific and professional fields. A list of publications from the journal and the date of publication was submitted later. During the five-year period, 209 publications were published in authorship or co-authorship. 128 scientific papers and 81 professional papers were published. Several papers were produced through the cooperation with other higher education institutions or as a result of different projects.

The Expert Panel considers that the number of publications for an organisation of this type is satisfactory. Unfortunately, not all teachers participate in the publications.

*The higher education institution has efficient procedures for encouraging high-quality professional and/or scientific publication.*

Clear and efficient procedures for encouraging high-quality professional and/or scientific publication are not in practice. This should be improved within the framework of quality management.

From the discussions with the management of the Polytechnic, however, it became clear that the teachers are motivated to work scientifically and that appropriate resources are made available. As a good approach to motivate the teachers, it can be said that participation in conferences is only financed if the teachers themselves submit a scientific presentation to the conference. All the resources of the Polytechnics like IT equipment, software support - statistical data processing programs, laboratories and all laboratory equipment are available to teachers for scientific and developmental and professional research.

*The higher education institution keeps records on the distribution of publications by areas/departments of the HEI and encourages teachers and associates from various fields to publish.*

The Polytechnic is organized on a departmental basis. There are three departments at the Polytechnic: Department of Karst Agriculture, Department of Food Technology and Department of Commercial Business with Entrepreneurship.

The publications were not allocated to the individual departments until now. As already underlined in this report, Polytechnic is only at the beginning of introducing a functioning quality management system. The allocation of publications to the departments and an evaluation of these statistics will be an important basis for the increased promotion of the different departments. This can be important for the targeted support of individual areas.

*Teachers and associates of the higher education institution actively promote professional and/or scientific achievements at national and international conferences.*

The management of the Polytechnic actively promote professional and/or scientific achievements at national and international conferences. This became clear both in the discussions with the teachers and with the management. According to the dean, funds are always available for participation in conferences if the requirements are met. In conversation with the teachers present, most of them indicated that they had attended an international conference in recent years. The above-mentioned connection between financing and publication promotes the presentation of scientific and professional results at conferences.

#### Recommendations for improvement

- Better data collection and analysis can help to further develop good approaches. The international visibility of the Polytechnic and the involvement of all teachers should be given even greater attention.
- Teachers should also be motivated both to publish more internationally and to be more present in high-ranking scientific journals.

#### Quality grade

Satisfactory 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 higher education institution monitors and takes into consideration the needs of society, local community and labour market in planning its professional and/or scientific and research activities.*

The Marko Marulić Polytechnic of Knin is of great importance for society and the economic environment in the region. The decentralised location in Knin, a border region outside the economic centres of Croatia, is of particular importance here. In the discussions with the management but also with external stakeholders - representatives of professional organisations, business sector/industry sector, professional experts, non-governmental organisations - it became clear that the Polytechnic is well networked in the surrounding and considers the interests of the region in its work. According to own statements, the Marko Marulić Polytechnic of Knin wants to improve the development of small and medium-sized entrepreneurs in agricultural production and food processing, which can certainly contribute not only to local but also to regional development.

The orientation of the degree programmes is adapted to the social needs of the region. Agriculture plays a special regional role. In this decentralised region, setting up a new enterprise is of importance for the economy. Both scientific and professional work is oriented towards this. In recent years, several projects have been established and completed in cooperation with regional partners. A good example the project 'MA DA – Young, and Socially Engaged' (2018-2019) funded by the European Social Fund, hosted by the 'Woman' Drniš Association in which the Polytechnic is a partner in. The aim of the project is to establish a sustainable programme of socio-useful learning at the Polytechnic, in order to empower local CSOs involved in rural development, and to develop programmes for preparation and implementation of OP rural development projects. The project includes teachers and students of the Polytechnic.

*The higher education institution has an efficient support system for research and transfer of knowledge and technologies.*

Clear and efficient support system for research and transfer of knowledge and technologies is not in practice. Even if this is not easy to achieve, such a support system could further improve the efficiency of efforts. Attention should be paid to this in the further improvement of the quality management system.

Even if such a system is not currently established, the Polytechnic, as already described, can refer to successes in research and knowledge transfer, which should be further supported and expanded.

*Teachers and associates participate in the activities of professional organisations.*

In the context of Self-analysis, The Polytechnic presents a list of teachers who are involved in scientific and professional organisations. It is clear from this that some teachers are very active in this activity. Some are not. Management should continue to support this work and motivate the less active teachers to do so.

It is astonishing that the Polytechnic has no expenses for memberships in organizations. No statements are made about institutional memberships. There is certainly further

potential here to underline and promote the importance of this work in professional organisations.

#### Recommendations for improvement

- An efficient support system for research and transfer of knowledge and technologies should be established. The introduction can further improve work in the field of professional and scientific knowledge transfer.
- The Management of the Polytechnic should continue to support the work in professional organisations and motivate the less active teachers to participate.

#### Quality grade

Satisfactory 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

*Teachers and associates have received regional, national and international awards and acknowledgements for their professional and/or scientific achievements.*

The awards and acknowledgements for their professional and/or scientific achievements the teachers received are quite limited. The list contains one regional/national professional award during the evaluation period.

The Marko Marulić Polytechnic of Knin still has some potential in this area. Here management could create stronger incentives for teachers to participate more intensively in tenders for prizes.

Also, the initiation of own award ceremonies is a possibility to get more attention for the research work at the Polytechnic. The establishment of a research award (possibly also in cooperation with the regional economy) could at least put the scientific work in a stronger local focus and motivate the teachers to become more involved also nationwide.

*The higher education institution is a holder of an adequate number of projects.*

Polytechnic has worked on a number of projects in recent years. A considerable part of the cost-intensive research equipment in the agricultural and food sector could be financed from these projects. The Self-evaluation refers to two projects led by Polytechnic. That's relatively little. Since there are several analytical instruments in the field of laboratories in the agricultural and food sciences, which have been purchased within the framework of funded projects, they are used for research and teaching

purposes. The Polytechnic is additionally a partner in a few other projects in which, as a rule, no funding is provided to the Polytechnic.

Participation in projects offers the possibility of developing scientific results. The involvement of students in research represents an important enrichment of teaching at a higher educational institution.

*Teachers and associates take part in national and international conferences.*

As already mentioned in 5.1, teachers and associates participate in several national and international conferences. This became clear both in the discussions with the teachers and with the management. According to the Dean, funds are always available for participation in conferences if the requirements are met. In conversation with the teachers present, most of them indicated that they had attended an international conference in recent years. The above-mentioned connection between financing and publication promotes the presentation of scientific and professional results at conferences.

Participation in national and international conferences is important from the point of view of the Expert Panel for various reasons. In addition to the possibility of publishing its own research results, Polytechnic's work can be made better known. Furthermore, there is the possibility to establish further contacts to scientists of other research institutions and thus to create good conditions for the acquisition of joint projects.

*Teachers and associates are members of professional organisations and editorial boards of journals.*

As mentioned in standard 5.2, some teachers of Marko Marulić Polytechnic of Knin are members of the domestic and international scientific and/or of professional associations/advisory bodies/initiatives and are members of the Editorial Board of scientific and technical journals. The Self-evaluation reports on six active teachers.

An important task for the future will be to increase the number of activities and to participate even more intensively in scientific and professional life.

### **Recommendations for improvement**

- The Expert Panel underlines that the teachers at Polytechnic should be motivated to continue to recruit projects in the future. It will be particularly recommended to try to find funding projects that will also enable Polytechnic to obtain additional funding for research. Participation in European Union projects in particular should be possible. To this end, intensive international contacts should be established. Management should create additional incentives here.
- The Expert Panel strongly recommends participation in national and, above all, international conferences in order to achieve the above-mentioned goals even better.

- Teachers and associates should increase the number of activities as members of professional organisations and editorial boards of journals and participate even more intensively in scientific and professional life.

### Quality grade

Minimum level of quality

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

### Analysis

*The research equipment is used in teaching at undergraduate and graduate level.*

In the field of agricultural and food sciences, Marko Marulić Polytechnic of Knin was able to demonstrate that a wide variety of research equipment was used in the courses. This concerns the undergraduate level, as there is no master's programme in these fields. The integration of these analytical instruments into teaching is very much welcomed and regarded as exemplary.

Unfortunately, in the field of economics and entrepreneurship beside presentation technology no modern research equipment was apparently used for teaching.

*Undergraduate and graduate students are involved in HEI's projects.*

The involvement of students in research projects was discussed with various groups such as students, teachers, external teachers and external representatives from business and organisations. The feedback was unanimous: Undergraduate and graduate students are included in higher education projects. The students contribute their work to better results and to the achievement of the goals of the Polytechnic projects. Reports were made on the involvement of various scientific and professional projects.

*The HEI recognizes and rewards professional and/or scientific achievements of its employees.*

The Polytechnic in Knin has a regulated the system for recognition and rewards as shown in the documentation. It does not include criteria of excellence (for teaching or scientific achievements) but it prescribes the establishment of a committee responsible for deciding about employees' awards. Thus, the Expert Panel was able to review the regulations, but there were no recent documents on awards and/or recognitions awarded recently. Thus, the Panel is not sure whether this regulation will be implemented in practice. This suspicion is obvious, as there are also documents in the area of quality assurance that are not implemented in practice.

The Expert Panel recommends the implementation of the existing rules in practice.

### Recommendations for improvement

- Polytechnic is recommended to invest in the field of economics and entrepreneurship in the future. Additionally, funded research projects in the field of economics can be an additional help. The teachers should be motivated to get more involved here.
- The acquisition of further projects is recommended in order to expand the spectrum. Especially the establishment of interdisciplinary projects, in which students of different courses of studies can participate together, can bring an additional gain of knowledge to the students.
- The Expert Panel recommends the implementation of the existing rules for recognition and rewards in practice.

### Quality grade

Satisfactory level of quality

## **APPENDICES**

**1. Quality assessment summary - tables**

**2. Site visit protocol**



<i>Quality grade by assessment area</i>				
<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>		X		
<i>II. Study programmes</i>		X		
<i>III. Teaching process and student support</i>			X	
<i>IV. Teaching and institutional capacities</i>		X		
<i>V. Professional and/or scientific activity</i>			X	

<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.	N/A			

<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	

<i>Quality grade by standard</i>				
<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		

<i>Quality grade by standard</i>				
<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		

<i>Quality grade by standard</i>				
<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 research.			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	

## VISIT PROTOCOL

	<b>Monday, 27<sup>th</sup> May 2019</b>
<b>09:00 – 11:00</b>	Training for the Expert Panel members (short presentation of ASHE, introduction to the higher education system in Croatia, introduction to the re-accreditation procedure, standards for the evaluation of quality and writing the final report)
<b>11:00 – 14:30</b>	Trip from Zagreb to Šibenik
<b>17:00 – 20:00</b>	Preparation of the Expert Panel members for the site visit (working on the Self-evaluation report) Questions for the site visit

	<b>Tuesday, 28<sup>th</sup> May 2019</b>
<b>09:00 – 10:00</b>	Meeting with the dean, vice dean and secretary of the Polytechnic
<b>10:00 – 11:00</b>	<i>Internal meeting of the Panel members (<b>Document analysis</b>)</i>
<b>11:00 – 12:00</b>	Meeting with full-time teaching staff (members of the management are excluded)
<b>12:00 – 13:00</b>	Meeting with the students (open meeting for all students)
<b>13:00 – 14:30</b>	<i>Working lunch</i>
<b>14:30 – 15:15</b>	<i>Meeting with external lecturers</i>
<b>15:15 – 16:00</b>	Meeting with external stakeholders -representatives of professional organisations, business sector/industry sector, professional experts, non-governmental organisations
<b>16:00 – 16:30</b>	Organisation of additional meeting on open questions, if needed
<b>18:00 – 20:00</b>	Joint meeting of the Expert Panel members – reflection on the day and preparation for the second day of the site visit

	<b>Wednesday, 29<sup>th</sup> May 2019</b>
<b>09:00 – 10:30</b>	<i>Internal meeting of the Panel members (document analysis)</i>
<b>10:30 – 11:00</b>	Meeting with: Head of the QA office The head of professional practice Erasmus coordinator ECTS coordinator
<b>11:00 – 13:00</b>	Tour of the Polytechnic (library, student services, IT rooms, lecture rooms, laboratories), participation in teaching classes and tour of company in which students do student practice - Agroturizam „Duvančić“
<b>13:00 – 14:30</b>	<i>Working lunch</i>
<b>14:30 – 15:00</b>	Meeting with the alumni (which are not employees of the HEI)
<b>15:00 – 15:30</b>	Organisation of additional meeting on open questions, if needed
<b>15:30 – 15:45</b>	Exit meeting with Meeting with the dean, vice dean and secretary of the Polytechnic
<b>18:00 -</b>	Joint meeting of the Expert Panel members – Drafting the final report and working on the document Standards for the evaluation of quality

	<b>Thursday, 30<sup>th</sup> May 2019</b>
<b>08:30 – 11:00</b>	Drafting the final report
<b>11:00 -</b>	Return to Zagreb



## SUMMARY

In the course of the re-accreditation, the Expert Panel visited the Marko Marulić Polytechnic of Knin on 28 and 29 May 2019. The Polytechnic, with three Bachelor's and one Master's programmes, is a rather small higher education institution with a clear focus on teaching.

The Panel found an institution with highly motivated staff and very good communication between teachers and students. The equipment is particularly good, especially in the field of agricultural and food sciences. The Polytechnic is very well integrated into the region and cooperates with the local economy and other institutions as well as the local community.

On the other hand, the quality management system is still under construction. Collecting, analysing and using the results in planning activities needs to be improved. The Polytechnic should establish a functional internal quality assurance system, based on PDCA methodology. This circumstance has clear effects on the results of the accreditation procedure, as the submitted written documents do not suggest that the study contents and learning outcomes have been continuously further developed in the past years. The systematic collection and wise use of the labour market feedback and analysis could be used to improve the preparation of the students for the labour market. Collected data could and should be used to support students in their work and thus reduce the dropout rate. The development of clear guidelines for the evaluation and benchmarking of excellence for advancement into higher grades for research, publication and teaching activities could improve the work of the Polytechnic teachers. The internationalisation of course content and teaching methods is almost non-existent. Polytechnics should take the opportunity to also use international teaching and materials. This would significantly improve the quality of teaching. Polytechnics should continue to work on acquiring third-party funding projects and thus strengthen cooperation with professional institutions and industry.

The management of Polytechnic reported that the study programmes are currently being revised and adapted to the requirements in order to increase the attractiveness of the study programme and to better integrate the demands of the labour market. This new orientation was not part of the Expert Panel's assessment, but is explicitly welcomed and provides an opportunity for the future success of the Marko Marulić Polytechnic of Knin.