

July 2012

COMPOSITION OF THE EXPERT PANEL:

Pursuant to Article 22 of the Act on Quality Assurance in Science and Higher Education (ASHE) and Article 30 Paragraph 1 Item 4 of the Statute of the Agency for Science and Higher Education, the Accreditation Council of the Agency for Science and Higher Education at its session on 28 February 2012 passed the decision to appoint a panel of experts for re-accreditation of the Polytechnic in Gospić, as follows:

- Prof. Juergen Bruns, University of Applied Sciences, Hochschule Niederrhein (Chair)
- Prof. Andreas Polk, Ph.D. Berlin School of Economic and Law
- Dr. Sc. Dražen Vrhovski, Vern Polytechnic
- Prof. Bojan Hlača, Ph.D. Polytechnic of Rijeka
- Josip Hanak, Student, Polytechnic of Zagreb

The expert panel was supported by

- Viktorija Juriša, main coordinator, Agency for Science and Higher Education
- Frano Pavić, assistant coordinator, Agency for Science and Higher Education
- Ivan-Filip Jakopović, interpreter at the site visit and report translator, Agency for Science and Higher Education

CONTENTS

Page

INTRODUCTION	4
1. Short description of the evaluated institution	4
2 The work of the expert nanel	6
DETAILED ANALYSIS BASED ON STANDARDS AND CRITERIA FOR RE-	
ACCREDITATION	
1 Management of the Higher Education Institution and Quality Assurance	7
2. Study Programmes	9
3 Students	
4 Teachers	
5. Research and professional activity	
6. International Cooperation and Mobility	
7. Resources, Administration, Space, Equipment and Finance	20
FINAL REPORT AND RECOMMENDATIONS BY THE EXPERT	
PANEL FOR THE ACCREDITATION COUNCIL	
1. Strong Points	
2. Weak Points	23
RECOMMENDATIONS FOR IMPROVEMENT OF QUALITY	25

INTRODUCTION

Short Description of the Evaluated Institution

Polytechnic "Nikola Tesla" in Gospić was founded by the Regulation of the Croatian Government adopted on 06th July 2006. Activities of the Polytechnic "Nikola Tesla" in Gospić were defined by the Regulation on the establishment (Official Gazette 75/06), as well as the amendments to the Regulation on the establishment (Official Gazette 57/07). The institution is registered in the Register of Higher Education Institutions of the Ministry of Science, Education and Sports under number 0296. On the basis of the Decision (accreditation) of the Ministry of Science, Education and Sports under number 0296. UP / I -602-04/06-11/00005, File No.: 533-07-06-0004) a license was issued by the National Council for Higher Education with the recommendation of the Ministry of Science, Education and Sports.

Polytechnic "Nikola Tesla" in Gospić began its activity in the academic year 2006/2007. There are 3 departments: Business Department, Transport Department and Administrative Department.

Permanent accreditations were issued for following professional study programmes of the polytechnic

- Economics of Entrepreneurship (2009)
- Administrative study (2009)
- Road Transport (2010)

The Institution stated that professional study of "Safety and Protection" is being in the process of passing.

The instructions are carried out in Gospić (Economics of Entrepreneurship, Road Transport) and in Otočac (Administrative study) about 56 km from Gospić.

All study programmes are performed as full-time and part-time studies. After completion a student has achieved 180 ECTS and gets in accordance with the Bologna regulations the title Bachelor.

Within the last 3 academic years the total number of enrolments has decreased in all study programmes because of the economic crisis. A consolidation and even a light increase could be observed however in last year's enrolments. The total number of enrolled students in the academic year 2011/2012 was 605, thereof 282 full-time students and 323 part-time students. Of the total number of enrolled students 77% have completed vocational high school and 23% gymnasium. Currently there are 11 teachers and 4 assistants fully employed. By May 2012 the number of fully-employed teachers will increase to 14. There are also 30 teachers and associates part-time employed. Thus the current ratio of students and teachers/associates will be reduced from 34:1 to 30:1.

Based on a governmental decision and the final decision of the Commercial Court the independent professional research centre, Centre for Karst, became part of Nikola Tesla in November 2010. The objectives of the Karst Centre, which was founded in 2005, were to initiate research mainly to sustainable economic development and environment protection of the Karst region and to support inter-institutional and international cooperation. The merger of the environmental oriented activities of the research centre (2 people fully employed) and the business oriented study programmes of the polytechnic did not lead up to now to the intended strengthening of scientific research activities of the Polytechnic.

The professional bodies of the polytechnic "Nikola Tesla" are: Management College Board, the Dean, the Department Council and Professional College Board.

The Management College Board (five members, three appointed by the founder) is responsible for the legality of the institution, establishes the financial and development policy and supervises the implementation of the work programme. The Dean, as the leader of the polytechnic, implements the decisions of the Management and Professional College Board. He is assisted by three Vice-deans. The Department Council consists of the head of the departments, all teachers, two representatives of associates and student representatives. The Department Council proposes study programmes and the appointment of professors and associates to the Professional College Board. Dean, Vice-deans, teacher and student representatives are members of the Professional College Board is responsible for educational, professional and scientific activities e.g. for carrying out elections in the grades, for delivering study programmes and evaluating and analyzing of teaching results.

Mission and vision of polytechnic "Nikola Tesla" are the continuous increase of quality of the professional study programmes, encouraging mobility and introducing new programmes and training profiles needed in the economy in the region.

The Work of the Expert Panel

The work of the expert panel was based on the self-evaluation report prepared by Polytechnic "Nikola Tesla" in December 2011/ January 2012.

The panel carried out a site visit to Gospić and Otočac on 26 and 27 march. During the visit they saw the lecture rooms, library, student services and IT-facilities. Meeting were held with the following groups:

- Management (Dean, Vice-dean, Head of the departments, Head of the Karst Center),
- Committee for quality management,
- Students,
- Teachers and assistants

DETAILED ANALYSIS BASED ON STANDARDS AND CRITERIA FOR RE-ACCREDITATION

1. Management of the Higher Education Institution and Quality Assurance

1.1 The mission and vision of the polytechnic is outlined. It is mainly directed towards organizing and implementing the professional study programmes, active cooperation with the industry and encouraging mobility of teachers and students thus becoming a centre of excellence. The main strategic goal, defined in the self-evaluation report, is improving the study programmes and introducing new study programmes needed in the region. The polytechnic has not yet developed a long-term strategic plan showing the planned future development in a way that annual progress can be monitored and controlled.

It is recommended that the Polytechnic develops a strategic plan for the next 5 to 10 years. The strategic plan should show annual goals and the intended measures to achieve them. All professional bodies of the Polytechnic should be involved in developing that strategy. If external or internal influences require a revision of long-term goals or changes in the strategy all stakeholders should be informed.

1.2 The institution seems to have an organizational structure that allows carrying out effective processes. Up to now no need was felt to formalize these processes in detail. A growing number of study programmes, students and teachers will require formalization in structure and process to keep and increase quality on all levels and to guarantee transparency to all stakeholders involved.

It is recommended that due to the rapid past growth Polytechnic "Nikola Tesla" should use a phase of consolidation to check the present structure and processes for possibilities of improvement and formalize the results. Areas for formalization are e.g. a feedback system to the teachers and students, a staff development plan, exam regulations or a study handbook for the students.

1.3 Up to know all study programmes are aligned with the institution's mission and the Bologna process.

1.4 Study programmes are also aligned with the Baseline of the Croatian Qualification Qualifications Framework. The same applies for the new professional study programme in adoption "Safety and Protection".

It is recommended however that before launching further new study programmes, the institution investigates the needs of the region to make sure that regional aspects are taken into account. This would be a chance for Polytechnic "Nikola Tesla" to strengthen its competitive advantage in the area and further reduce the depopulation of the region.

1.5 The institution has developed systems of quality assurance and continuous quality improvements for its education programmes, but there is a lack of formalization. The involvement of external stakeholders is limited.

It is recommended that the system for quality assurance is strengthened and that the involvements of external stakeholders are intensified. External stakeholders e.g. companies, associations, alumni, can be of help for internships or employment of future graduates. The possibilities of joint projects with the Karst centre should be more exploited.

1.6 The institution has a formal mechanism for the monitoring and improvement of the quality of its teaching, although the feedback from the monitoring is not fully provided to the students or members of faculty.

It is recommended that a formal system of regular feedback of quality monitoring, especially from the student survey, is instituted for staff and students. A feedback to the students about results and consequences leads to satisfied and better motivated students. Higher return rates of questionnaires would be the consequence. The management not only has to ensure the quality of teaching but also to ensure that the courses are delivered in time and cancelled courses are repeated.

1.7 The polytechnic has established formal rules for ethical behaviour in its teaching and research activities. Ethical behaviour of employees and students is of extreme

importance to the polytechnic as quoted in the self-evaluation document. There was no evidence concerning any problems with ethical behaviour.

1.8 Staff and students seem to be acquainted with the rules of ethical behaviour of the polytechnic.

It is recommended that the importance of the rules is underlined by signing a document of ethical behaviour by staff and students when they enrol and become a member of the Polytechnic.

2. Study Programmes

2.1 The enrolment quotas in the last three academic years (full-time/part-time) Economics of Entrepreneurship (30/60 (2009: 30/50)), Road Transport (30/40) and Administrative study (30/30) remained unchanged and were mainly based on the resources of the institution such as on the teachers' capacity and available space. The enrolment quotas were not based on the needs of the market, but the management is prepared to allow entry of students in case the planned quotas are exceeded by the demand and existing capacity is available. With further growth of the polytechnic the planning of realistic enrolment quotas will gain importance to assure quality teaching.

It is recommended that enrolment quotas should better reflect the needs of the Croatian labour market. A more intensive cooperation and exchange with local and national communities and national or international businesses would give indications for future developments. An effective alumni organization could contribute valuable information to that process. The planned new "Security and Safety" study hardly utilises the local resources and stimulates sustainable growth of the local economy.

2.2 The enrolment quotas are in line with the institutional resources for quality teaching and infrastructure. An analysis of the pass rates does not exist.

It is recommended that pass rates with respect to professional study programme, full-time and part-time students, and length of study and student's background (gymnasium /vocational school) are analysed and reflected in the enrolment quotas. 2.3 Student learning outcomes at the level of a study programme are set by the teachers and are clearly communicated to the students. The learning outcomes are defined in the syllabi. They describe the knowledge and skills a student should achieve in a specific course and in the study programme as a whole. The syllabi inform students about the course content, the recommended literature and the type of exam that has to be passed to prove the achievement.

It is recommended that the syllabi also include English literature

2.4 The teachers decide in which ways students' learning outcomes are assessed. The learning outcomes shall reflect the knowledge and skills and abilities to understand, analyse or evaluate. The different methods of assessment (written/oral exams, seminars, assignments etc.) should be appropriate to the level of the expected learning outcome and should cover the full range of learning being assessed. A check of some exam papers confirmed the compliance with that rules. A precondition for being accepted to the final exams is a regular class attendance for full-time students (70%), as expressed in a syllabus. Part-time students do not have to attend class lessons.

2.5 For each course and each study programme a student's workload is published. Workload includes class attendance and homework (e.g. preparation of presentations, reading, assignments and group work). The "non-class workload" is estimated by the teacher of a specific course. 27 hours workload are equivalent to 1 credit point (ECTS). A six semester bachelor program is equivalent to 180 ECTS (= 4860 hours workload). This is in line with the Bologna rules requiring a workload of 25 to 30 hours for 1 ECTS (although most of the European Institutes of Higher Education calculate 1 ECTS equals 30 hour workload).

It is recommended that monitoring of the credit weighting and associated workloads are carried out on a regular basis and with input from the students. In the long-term a revision to 30 hours workload =1 ECTS might be considered, to assure the acceptance of Nikolas Tesla students at other universities (student mobility) and to be able to attract students from other HEIs.

2.6. All three study programme are calculated for six semesters and 180 ECTS. This is formally correct and in line with Bologna regulations.

It was evidenced that, at the Road Transport study programme, the number of practicum classes decreases in higher years of study. For instance, in the 3rd semester, modules "Transport Logistics" and "Traffic corridors and flow of the goods" do not include any practical work. In the 4th semester, one out of six engineering modules taught do not include any practicum. As this is an engineering study programme, it is expected that the higher year curricula is focused on particular skills and practical knowledge.

It is recommended in order to achieve international standards to implement a final written paper (thesis) to prove that students are able to work scientifically. Internships should also be part of the curriculum. More technical oriented courses could be added to the Road Transport study programme. To get the proof to what extend international standards are met, Nikola Tesla should do regular benchmarking with other national and international HEIs.

In general the polytechnic "Nikola Tesla" should think of ways to improve the language knowledge of their students (which must not be necessarily reflected in the study programme), to be able to introduce courses delivered in English and to decrease the reluctance to study abroad.

2.7 Teachers and students confirmed that different teaching styles are applied. From what we learned during the site visit learning styles are appropriate to the subject.

It is recommended that students get more instructions and support to become more autonomous. Company visits, guest speakers or internships could motivate students to become more responsible learners.

2.8 There are some supplement sources for acquiring knowledge e.g. the teachers' scripts or slides. Research is however not possible at the polytechnic because of the limited amount of books. This applies for the library in Gospić and in Otočac, where the Administrative study is carried out. Although students have access to the public Independent Library in Gospić and the City Library in Otočac the access to economic journals or databases do not exist.

It is recommended to evaluate - perhaps together with the public libraries - the access to actual sources to create a basis for research.

2. 9 Students have the chance to reinforce and apply their learning in the context of practical applications just in theory. Established business cooperation of the polytechnic that could support such practical applications (e.g. internships) do not exist, there are only some individual contacts of teachers.

It is recommended that after the initial rapid growth of the polytechnic, where a lot of organizational problems had to be solved, Nikola Tesla puts one main emphasis on developing its links with domestic and international companies and associations to provide better opportunities for students practice. It should be especially considered to what extent the potential and the relations of the Karst Centre can be incorporated.

2.10 The future development of the Polytechnic will depend to a certain extent on the implementation of new study programmes. The planned introduction of the professional study "Safety and Protection" is a first step. The panel members could not see however that this decision was based on a formal process.

It is recommended to formalize this process of developing new study programmes. As basis for success all stakeholders should be included. Especially the influence from business and regional authorities should be strengthened.

3. Students

3.1 The information packages (e.g. websites, brochures, leaflets, posters, radio spots) available to potential students inform them about the level of the programmes, qualifications and academic titles as well as possibilities for further education and employment. Application for enrolment is made via the National Information System for Applications to Higher Education Institutions.

It is recommended that as soon as possible the website offers information in English as well.

3.2 The admission criteria for full time students are based on the State Matura, whereas for part-time students several criteria are taken into account. These criteria seem not to be fully transparent. There is a tendency to accept all those who are applying for a part-time study programme. With respect to the situation on the labour market and the regional problems this tendency is acceptable.

It is recommended that admission criteria for part-time students are more transparent and that pass rates are taken into account when fixing the enrolment quotas.

3.3 Polytechnic "Nikola Tesla" does not evaluate the competencies of applicants with respect to the needs of the market and their future career. (For full-time students that are accepted on the base of a State Matura, such an evaluation would have no consequences). The reputation of the institution is low, and we have heard during our site visits that students enrol "because it's easy to graduate".

It is recommended that the polytechnic defines the competencies for each study programme and improves the reputation of the institution. In case that the number of applicants exceeds the enrolment quota, these criteria allowed for a better selection of students.

3.4 Teachers are offering consulting hours and most of them are available on request. The institution has recognized that there is an additional need for support for personal and professional development of the students. A mentoring system shall be implemented and start in the academic year 2012/2013.

It is recommended that besides the mentoring system a tutor system is also implemented. A main objective of a tutoring system could be to help to overcome already in an early stage the knowledge differences between students coming from vocational schools and gymnasiums.

3.5 Students reported to be satisfied with extracurricular activities as far as sports are concerned. So a basketball-team was supported that attended recently a tournament in Pula.

3.6 The standard of services provided to the students is sometimes poor. There is a copying and scripting service at the Polytechnic in Gospić, but there is no cafeteria or student accommodation. Subsidized meals are provided by the Hotel Anna in Gospić (the prices of which are still considered to be too high by the students). Concerning meals for students in Otočac there is no solution up to now. The polytechnic does not consider it as its main task to provide these facilities.

It is recommended - although most of the students come from the region and stay at home with their parents – that the polytechnic improves the standard of the non-academic services offered to the students e.g. intensify talks with the relevant ministry and local authorities.

3.7 Students are a well accepted body in the administration of the polytechnic. Student representatives are elected by the students. They are according to the statute of the polytechnic represented in the Professional College Board and thus have influence on the educational, professional and scientific activities of the Polytechnic of "Nikola Tesla" in Gospić.

3.8 Although the institution publishes its methods and procedures for student assessment, there is limited feedback by the teachers to the students aiming at improving the knowledge of the students.

It is recommended to assure a regular feedback to the students and offering them the right to appeal.

3.9 There are no statistics compiled and published by the polytechnic on the employability of its graduates. The number of unemployed graduates can only be derived from the statistics of the Croatian Employment Service. According to that statistic the rate of unemployment of the graduates of the last 3 years was for Economics of Entrepreneurship 15%, Road Transport 34% and Administrative Study 14%.

It is recommended that the polytechnic establishes own statistics of employability that allow a detailed break down of employment and unemployment e.g. by study programme, duration of unemployment, age or sex of the students. This could be a basis for actualizing and modifying the study programmes. A career centre and an efficient alumni organization could be of help in establishing such a system. 3.10. There is no official alumni organization at polytechnic of "Nikola Tesla". Contacts to former students are occasional.

It is recommended that students are informed right from the beginning of their study and continuously during the study period about the advantages of a network like the alumni organization (procurements of internship, jobs, exchange of experience, suggestions for improvements of study programmes). Common events between former and present students could intensify personal relations. Thus students should be encouraged to use their opportunities. A database should be established to support contacts to former students.

3.11. Students have an appropriate influence in the decision-making process and into the solution of matters concerning their affairs. This influence is guaranteed by their representation and their veto-rights in the Professional College Board and their representation in the Department Council, related to the implementation of the teaching process and professional activities of the departments.

3.12 The public is well informed by the Polytechnic about the study programmes and expected learning outcomes and qualifications by different media. It is not clear to what extent employment opportunities are also published.

It is recommended that the institution develops a communication plan to ensure that the public more generally knows about its activities and achievements.

3.13 Students can express their opinion and proposals through membership of deliberative committees. Their views are also sought through the completion of teaching evaluation forms.

3.14 The students are almost not informed about the results of their comments or provided with feedback.

It is recommended that the institution gives more attention to ensuring that feedback is given to the students so that they can understand the response to their comments. This would motivate students to answer the questionnaires (e.g. on the web) and would increase the return rate.

4. Teachers

4.1 Number and qualifications of teachers are on the way to be in line with the strategic goals of the Polytechnic. Core disciplines are adequately covered. Students were mostly satisfied with the competencies of the teachers, but complained about the attitudes of some teachers (late arrival, late or no information about cancelling lessons). It was reported to the panel members that cancelled lessons are often not made up.

4.2 The institution intends to carry out a policy of growth and development of human resources. This is proven the fact that within the last five years the number of outgoing teachers (3) was exceeded by the number of newly employed teachers (18). There are no exact figures submitted to the panel, but the new teachers seem to be mainly part-time teachers.

It is recommended that the ratio between full-time teachers (14) and part-timeteachers (30) - accordingly 32% full-time teachers - is increased to ensure the stability of delivering quality teaching.

4.3 In future the institution has to carefully monitor the replacement of leaving full-time teachers. Full-time teachers should only legally be replaced by part-time teachers to a certain extend. It should be taken care that the quality of the programme is kept.

4.4 see. 4.2 and 4.3

4.5 The polytechnic promotes the development of young teachers e.g. by giving financial support to six teachers to accomplish their Ph.D. studies. This fosters the achievement of the polytechnic's mission.

It is recommended that this support becomes part of a well-developed documented policy.

4.6 All teachers who teach in the programme have been selected in the grades through a regular procedure to assure their competencies (number and quality of professional and scientific papers are a criterion for their competence). But there is no staff-development plan indicating in details the preconditions for teachers' advancement.

It is recommended that a staff development plan is developed and laid down, so that it becomes transparent to every staff member which requirements have to be met to be promoted.

4.7 The teachers' workload seems to be fair and acceptable. Teachers did not report any overload of work.

4.8 The institution takes care that teachers devote a substantial commitment to their teaching duties. External commitments are only agreed on an exceptional basis and limited to an exact number of lectures.

5. Research and professional activity

5.1 There are no formally adopted policies governing existing or planned professional research activities. The involvement of teachers and assistants in international organizations or the sporadic participation in conferences is initiated exclusively by the teaching staff. It cannot be considered as an institutional policy.

It is recommended that polytechnic "Nikola Tesla" develops policies that encourage research to achieve strategic goals. The role of the Centre for Karst must be better analysed and planned accordingly.

5.2 As there are no policies for research activities no implementation was possible so far.

It is recommended that mechanisms are developed and implemented - based on future policies – which ensure that systematic research activities are carried out in future.

5.3. There is no research agenda. Cooperation with other professional organizations and industry is only sporadic and not systematically carried out (e.g. joint publications with a Slovenian university).

It is recommended to plan and implement a research agenda in cooperation with the Karst Centre that can be perhaps the nucleus for intensified research activities.

5.4 Professional activities (e.g. publications, conferences) are supported but not initiated by the polytechnic.

It is recommended that professional activities are also initiated by the responsible bodies of the polytechnic and the results are monitored.

6. International Cooperation and Mobility

6.1 There is some inward mobility, mainly from students from the Polytechnic of Rijeka, due to the fact that this Polytechnic operated in Gospić before the establishment of polytechnic "Nikola Tesla". There are no organizational preconditions to encourage any other inward mobility of students from other Croatian Higher Education Institutions.

It recommended that arrangements are made for acknowledgment of ECTS gained by students at other polytechnics in Croatia. Encouraging and facilitating inward international mobility should be developed parallel to the outgoing mobility (see: 6.2).

6.2 Students have no opportunity to complete some portion of their study abroad. The management did not establish any international cooperation. From an institutional perspective, there is no support for students in this respect (no information, no financial support, and no office for international student exchange). By applying for the Erasmus Programme the Polytechnic has clearly expressed the interest and the will to become more international by supporting students' and teachers' exchange.

It has to be stressed however that so far students are reluctant in studying abroad. The main reason as quoted by the students is the poor knowledge of the English language.

It is recommended that polytechnic "Nikola Tesla" takes several steps to implement the objectives of the Erasmus programme. At short notice the English knowledge of the students has to be improved (see: 2.6). On this basis some courses could be delivered in English. Guest speakers and visiting professors could be invited; the applied media (website, leaflets, and brochures) should be available in English. Furthermore administrative and financial support of students will be necessary, e.g. an office for international affaires could support the exchange of ingoing and outgoing students.

6.3 There are no international cooperation so far between the polytechnic Nikola Tesla and other polytechnics.

It is recommended to start (parallel to the internal changes) a cooperation with a couple of HEIs on a low level. The areas of cooperation could be intensified step by step. Benchmarking could help to identify the most appropriate partner-HEIs.

6.4 The Centre for Karst has signed an agreement on international cooperation in 2010 with the Academy of Sciences and Arts of Bosnia and Herzegovina for joint projects in scientific and research activities and development tasks with the goal of solving issues of Karst areas. Apart from this agreement - concerning an area that is not relevant for the activities of the study programmes under consideration - the institution is not involved in international associations of similar institutions. There are only teachers involved in associations such as "Croatian Scientific Society for Transport" or in publishing activities of the journal "Suvremeni promet".

It is recommended to initiate and extend international collaboration to other international institutions that go beyond neighbouring countries only. The knowhow of the Centre for Karst in establishing relations to other institutions should be used.

6.5 As there is no international oriented infrastructure, no regulations concerning the acceptance of ECTS, acquired at other institutions, no adequate curriculum and no lectures in English, the minimum preconditions for accepting students from abroad are missing.

It is recommended to define and establish preconditions for becoming international and attracting students from abroad (see: 6.1).

6.6 Based on a three years approval by the Ministry of Economy, Labour and Entrepreneurship one "Training programme in the field of public procurement" was carried out in Gospić.

It is recommended to develop a Lifelong Learning Programme to the benefits of former students, the society and other stakeholders. One basis could be an effective Alumni club. The experience and assistance of existing Lifelong Learning Programmes such as Erasmus (for higher education) or Grundtvig (practical learning for adults) should be taken into account.

6.7 A form of institutional cooperation only exists for the Centre for Karst (see: 6.4). There are no other European projects, bilateral agreements or joint programmes.

It is recommended that institutional cooperation for the benefit of students, teachers and the reputation of the institution should play an important role in the framework of international orientation of Nikola Tesla.

7. Resources, Administration, Space, Equipment and Finance

7.1 The institution provides appropriate resources for all enrolled students sufficient to support their effective learning. The Polytechnic has its own space at two locations in Gospić and in Otočac. The building in Gospić is currently expanded. To the existing six classrooms three new rooms will be added. In Otočac, where the administrative study programme is carried out, there are three classrooms.

The Polytechnic is equipped with a total of 26 computers, not older than three years, of which 14 are in the premises in Gospić, and 12 in the premises in Otočac. Computers are connected via a local LAN network and have Internet access. In Otočac one of the classrooms is equipped for videoconferencing.

It is recommended to verify the practicability of the videoconferencing. During the site-visit there were complaints of students of the first semester that about 50% of their courses are transmitted via videoconferencing from Rijeka. The courses are transmitted while the teacher is lecturing at the same moment students in

Rijeka. The transmission was in such bad quality that practically no communication was possible.

7.2 There is no regulation for the development of non-teaching staff. A support of non-teaching staff exists however, if provided suggestions are initiated from the staff.

It is recommended that the process is formalized as part of the staff-development plan.

7.3 The institution ensures that the technical equipment (computers, beamers, videoconferencing etc.) comply with recognizes international standards.

It is recommended to control the equipment can be used in a proper way (see: 7.1)

7.4 see: 7.3

7.5 There is no systematic collection and analyzing of information as a basis for improvements.

It is recommend that systematic feedback is gathered from teachers and students concerning satisfaction with videoconferencing, with access to the computer rooms, with available software, with the opening hours of the library etc.

7.6 There is a small library (33 m²) at Nikola Tesla in Gospić equipped with four computers for users and one computer for the librarian. The library consists of 1014 books, of which 555 titles. Part of the library collection is located Otočac. Of the total number of titles, 208 refer to textbooks or literature which is prescribed for each course, which amounts to almost 38% of the total book fund. There are no textbooks in English language, although the most important publications have been translated into Croatian language. There is a digital library METELwin installed that allows search for book titles in libraries of METALwin members. The library does not offer the minimum standards for scientific research, but the students did not feel this disadvantage as they are not used to use books as a basis for research (assignments etc.).They often exclusively rely on sources they find in the Internet.

It is recommended to improve the library both in quality and quantity. Increase the number of available books (also books in English language) and offer a few important national and international newspapers and economic magazines (like the Financial Times, The Economist etc.), including a reading area. There should also be access to other titles and other universities via database (e.g. EconLit, RePEc (Research Papers in Economics)). The management should encourage all stakeholders and oblige teachers to propose the acquisition of books and journals on a regular basis. Introductory courses: "How to do scientific research" and "How to use the library" and exercises that need the usage of books will support students to get accustomed to use books as reference. The institutions should introduce to the students the freely available scientific resources (i.e. RePEc, Economics E-Journal) and show how they can benefit from these resources for their studies.

7.7. The institution has maintained an appropriate ratio of teaching and non-teaching staff of 44 (full-time and part-time teachers) to 16 (non-teaching staff).

7.8 As Nikola Tesla is a public polytechnic, more than 80% of the operating costs are based on revenues of the Ministry of science and sports. Sources of own market income are mainly income for tuition fees about 80% (from part-time students) and entry fees.

7.9 Priority for the usage of funds was the renovation the building and improvement of facilities. The management has already announced that in case of increase in budget funding the increase of mobility of teachers and students and the establishment of the Student Centre (cafeteria and dormitory) would gain priority.

FINAL REPORT AND RECOMMENDATIONS BY THE EXPERT PANEL

STRONG POINTS

The panel has noted many strong points:

- Within a relative short time (since 2006) the Polytechnic has realised great achievements concerning the implementation of three study programmes and improving the infrastructure.
- There is a logic sequence in developing the Polytechnic (implementation of study programmes, improving the infrastructure, next becoming international).
- There seems to be a good atmosphere between management, teaching staff and students. (An indication is that many students would enrol again at Nikola Tesla).
- Teachers seem to be qualified and motivated.
- Curriculum and types of exams are adequate and in line with Bologna rules.
- The management supports the staff development by financing six Ph.D.
 studies, thus securing the future improvement of the staff quality.
- The new building might attract new students.

WEAK POINTS

- The rapid expansion in the past years needs a consolidation phase. Many existing structures and procedures need formalization. The informal communication connections and processes need formal written standards.
- Staff development plans, exam regulations or the feed back to the students have to be formalized in written form.
- Internship and final thesis should be incorporated in the curriculum.
- The polytechnic did not establish substantial cooperation with local, regional, national and international companies. It does not support students in finding companies, associations etc. for internships.
- The Centre for Karst dilutes the idea of the polytechnic. Original ideas that the Centre could contribute to the research activities of the Polytechnic have

proven to be unrealistic so far. There is a lack of external projects and the Centre of Karst is not well integrated into the overall concept of the Polytechnic.

- The polytechnic has to analyse and to take steps to reduce the high number of students who do not graduate. The institution's reputation is low.
- The introduction of mentorship and a tutorial system could also contribute to improve the quality of graduates.
- The application of the internet/intranet has to be intensified. State-of-the-art tools such as e-learning, application for admission, publishing of exam marks, informing students about course changes (e.g. cancellations because of weather conditions) are not yet implemented.
- The weakest point the management is well aware of that is the missing international orientation. This orientation will get more and more importance when Croatia will join the European Union. A first step is done with joining the Erasmus programme. Further steps need a joint effort of all stakeholders, management, teachers and students. An enthusiasm should be generated that students wish to go to study abroad. The improvement of the English language knowledge is a necessary basis, the same applies for teachers. Management has to provide the framework for these activities, by establishing international cooperation with other polytechnics. Change of the curriculum will be necessary to attract students from outside.
- The quality of lectures must not be influenced by weather conditions. Parttime teachers coming from either Rijeka or Zagreb University using that as an excuse should not to hold lectures in person.

RECOMMENDATIONS FOR IMPROVEMENT OF QUALITY

To summarize the above mentioned detailed recommendations the panel wants to emphasize the following main areas of priority:

 The existing and proven structures and processes have to be formalized to guarantee transparency and the independence of the people in charge.

This includes the description of the bodies of the polytechnic, the hierarchy and the duty of the bodies and committees. Processes that have to be formalized are e.g. admission for part-time students, feedback loops to teachers and students, regular updates of curricula (at least every 2 semesters). Internships and thesis have to be implemented in the curriculum.

- The institution needs to improve its reputation.

The institution should clearly state at the beginning of the studies which demands students will to meet in order to graduate. There should be a system (for instance by exams at the early state of the studies) which helps to separate those students willing and capable to graduate from those who are not. The institution should assure that students not willing to study leave the institution early, which frees resources available for those, willing to graduate in a decent amount of time. The institution should also establish a system of support for those students who are willing to study, but need to catch up with the knowledge of other students first (i.e. Maths courses at the beginning of the studies, English-courses, support in writing expertise etc.).

- The institution has to establish cooperation with the industry

The institution should set up a network of cooperation with local, regional, national and international companies. This network should be aimed at transferring practical and up-to-date knowledge (i.e. by the provision of guest lectures from practitioners), but should also be used to establish opportunities for students' internships.

- The polytechnic has to become international aligned.

This transformation needs an effort of all stakeholders. Internal organizational changes might be necessary (e.g. the implementation of a department for international affairs for students and teachers). Cooperation with international universities has to be established. The students' knowledge of English has to be improved. The curricula have to be modified. Mutual recognition of ECTS has to be guaranteed. Financial support of students and teachers has to be solved.

- The existing IT facilities need a better use.

The internet/intranet should be used by the administration and by the teachers for the daily communication with the students (e.g. information of exam dates and results, lecture hours postponed or cancelled, dates of meetings). E-Learning in an advanced form (blended learning) should be implemented in near future.

The panel is well aware that the realization of many of the above mentioned proposals depend on the financial situation of the polytechnic Nikola Tesla. Due to the fact that Nikola Tesla is a public polytechnic, it depends to the largest extend from the state budget income. There is only limited influence on the total revenues by own activity income. The recommendations of the panel should be of help however in negotiations with governmental authorities.