RE-ACCREDITATION OF TECHNICAL COLLEGE IN BJELOVAR

Date of the site visit: 21st May 2013

May 2013

COMPOSITION OF THE EXPERT PANEL

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INTRODUCTION

Short description of the evaluated institution

NAME OF HIGHER EDUCATION INSTITUTION: Technical College in Bjelovar

ADDRESS: Trg Eugena Kvaternika 4

NAME OF THE HEAD OF HIGHER EDUCATION INSTITUTION: Ante Čikić, PhD, Assistant Professor

ORGANISATIONAL STRUCTURE:

- Governing Board
- Quality assurance unit
- Dean's collegiate body
- Dean, Vice Dean and heads of departments/studies
- Professional Board
- Non-teaching units
- Teaching units
- Common services

LIST OF STUDY PROGRAMMES:

Technical College in Bjelovar is a higher education institution that offers specialist programmes of study in mechatronics and nursing.

The professional study programmes last three years and have 180 ECTS credits:

- Mechatronics
- Nursing

NUMBER OF STUDENTS:

• Mechatronics (full-time students – 133, part-time students – 63)

Nursing (full-time students – 133, part-time students – 221)
 NUMBER OF TEACHERS: 8 full-time and 50 external associates
 NUMBER OF SCIENTISTS: 0
 TOTAL BUDGET (BALANCE): in calendar year 2011: 5,940,376 kn
 MSES FUNDING: 0%

OWN FUNDING: 75%

SHORT DESCRIPTION OF HIGHER EDUCATION INSTITUTION:

The initiative for setting up a specialist technical programme of study was launched by the Economic Council of the Town of Bjelovar while mapping out the "Strategy of the Economic Development of the Town of Bjelovar 2006-2011" that determined the need for increasing the educational structure of the population, especially in the area of technical sciences. Based on this initiative, at its 24th meeting held on 5th September 2006, the Town Council made the decision on launching the procedure for setting up a specialist technical programme of study. The local development agency Poslovni park Bjelovar d.o.o. was entrusted with the implementation of the procedure.

The formal and legal conditions related to setting up a specialist programme of study required an institution to be founded. Therefore, on 9th October 2006 the Town Council of the Town Bjelovar made the Decision on Initiating the Procedure of Setting up an Institution – Technical College in Bjelovar.

Ante Čikić, PhD was appointed the first acting Dean on 6th July 2007. On 15th July 2008 Ante Čikić, PhD was appointed the first Dean.

On 18th February 2008 the Ministry of Science, Education and Sport issued the Accreditation for the Specialist Programme of Study in Mechatronics at the Technical College in Bjelovar. This day was declared the Day of the Technical College in Bjelovar.

Having founded the Technical College in Bjelovar, obtained the Accreditation for the Specialist Programme of Study in Mechatronics, conducted the competition and enrolment, on 6th October

2008 classes for the first generation of students of the Specialist Programme of Study in Mechatronics started (47 full-time and 58 part-time students). On 25th July 2008 the Town Council made the Decision on Initiating the Procedure for Setting up the Specialist Programme of Study in Nursing. On 15th October 2009 the Ministry of Science, Education and Sports issued the Accreditation for the Specialist Programme of Study in Nursing and the first generation of part-time students started their studies on 21st November 2009.

The work of the Expert Panel

For its work the Panel drew upon the Self-Evaluation Report, prepared by the Technical College in Bjelovar. A site visit was carried out on 21st of May 2013. During the visit to the Institution the Expert Panel held meetings with the representatives of the following groups:

- management;
- working group that compiled the self-evaluation;
- Representatives of the Quality Unite;
- The students, i.e., a self-selected set of students present at the interview;
- The Vice Dean for Education, Development and Improvement;
- Teachers;
- Teaching assistants;
- Heads of study programmes;

The Expert Panel also had a tour of the library, IT rooms, student register desk and the classrooms at the Technical College in Bjelovar, where they held a brief question and answer session with the students who were present. For the sake of efficiency, the session with the teachers was split into two simultaneous groups, one for Mechatronics, the other for Nursing.

DETAILED ANALYSIS BASED ON STANDARDS AND CRITERIA FOR RE-ACCREDITATION

1. Institutional management and quality assurance

1.1. VTŜ Bj does conduct strategic planning but it seems that this plan is rather inherited from the stakeholders, notably the Town of Bjelovar. VTŜ Bj and Town of Bjelovar have common interests in it. Town of Bjelovar has defined its plan in terms of socio-economic goals with the objectives of improving the local employment situation. However, this has been imperfectly translated into academic terms to become VTŜ Bj plan.

The Expert Panel recommends to define academic vision, goals and milestones within the socio-economic plan, clearly showing the positive contribution of higher education to this plan. Actions stemming from this academic plan should be sorted and prioritised, as well as written and approved as official document.

- 1.2. VTŜ Bj has taken steps towards ISO 9001 certification and succeeded obtaining a certificate in December 2012. As such, organisation has been formalised and processes written. All necessary information is provided in the Quality Manual.
- 1.3. Study programmes are described in general terms, but it is the opinion of the Expert Team that a statement placing programmes in their professional context is lacking (maybe as a consequence of 1.1.).

It is recommended to better define the mission of the programmes. Each programme must emphasize associated advantages and differences in relation to given mission.

1.4. VTŜ Bj has been certified ISO 9001 in December 2012 and therefore has implemented a Quality System. This Quality System encompasses all activities.

The Expert Panel is surprised that no Committee for Quality (dedicated to monitoring quality system) is mentioned in the list of active bodies assisting the Dean (p. 18) though this is a requirement of ISO 9001.

The Expert Panel regrets that the list of customers (an integral notion of ISO 9001) has not been forwarded in the self-evaluation report mission statement.

1.5. VTŜ Bj has appointed several committees to collect and analyse data about its activities. Internal processes are well defined but it is felt that VTŜ Bj is too dependent upon some nationwide offices for external data.

VTŜ Bj should develop means to track the progress and careers of their graduates. This might involve developing an alumni association. The information this provides should be interpreted in the local and national socio-economic context.

1.6. Formal processes exist for monitoring and improving teaching quality. Management is encouraging teachers to acquire better qualifications, but local initiatives may collide with ministerial orientations and quotas.

It is recommended that VTŜ Bj checks compatibility of its plan with external constraints and eventually negotiate a multi-year commitment with its supervising authorities. In addition, the Expert Panel proposes to establish a mentoring system for young and inexperienced teachers in collaboration with other higher education institutions that have more experience in particular areas of the curriculum.

1.7. Staff and students are made aware of ethical rules and these are freely available either in print or in the website.

2. Study programmes

VTŜ Bj offers two programmes, Mechatronics and Nursing. There are few commonalities, if any, between both programmes. Consequently, the Expert Panel agreed to score criteria on the minimum met by the lower assessed programme and write a short comment about the higher assessed one.

2.1. Monitoring of improvement of existing study programmes is based on feed-back from students which may give opinion on pedagogic skills of their teachers but have not the necessary professional references to give relevant opinion on development and innovation. Further implementation of survey among fresh graduates with a few years of experience would be more useful. Likewise, feedback from the main stakeholder (Town of Bjelovar) may miss a wider point of view on economic needs.

It is recommended to diversify the sources of data for programme monitoring. The Expert Panel also highly encourages VTŜ Bj to first consolidate success of its existing programmes before implementing new ones. See also recommendation 1.6.

2.2. Initial quotas have been based on a comprehensive survey valid at the time of College establishment. VTŜ Bj should be aware that there is a 3-year time lag between admission and graduation and that the number of graduates must match the job market at this moment. This means to take into account internal pass rate and possible external foreseeable factors impacting the economic situation.

The Nursing department has close relationship with hospitals, so there is a good insight into demand for graduates. The Mechatronics department should develop close links with industry to help provide information which can be used to help to decide on a reliable quota of students.

Some process should be created to update this survey, not relying fully on input of national data, and to use all available preferential relations, such as alumni, to anticipate changing demand liable to have adverse effects on employment rate (unemployment) success (shortage of graduates).

2.3. The present ratio of teachers to students is not satisfactory (below the national standard) and is an obstacle to quality teaching. According to the surveys, there is a possibility that economic demand might be able to absorb more graduates; consequently, there is no critique on the quota level itself. Library resources, despite the possible inter-library exchange, are rather poor and may hamper personal work. Note that this criterion is better met in Mechatronics (assessed as *Mostly implemented*).

The Expert Panel acknowledges that some of the difficulties associated with this are beyond the immediate control of the College, but urges the College to make every attempt to attract teachers to formalise their work in teaching at the College.

It is recommended that the ratio of teachers to students be improved to reach at least the national standard and more books be bought by the library. A detailed analysis of the current pass rate should be conducted to determine the factors contributing to the present figure. It is also recommended that the institutional resources for Nursing are developed urgently.

- 2.4. Learning outcomes and acquired knowledge are not clearly distinguished from each other leading to doubt about comprehension of the Bologna philosophy. Moreover, knowledge precedes outcomes, whereas it should be deduced from outcomes. The Expert Panel has not been presented with a matrix of outcomes/knowledge which could have been the basis of the curricula definition. Note however that Mechatronics has a better score of achievement (Mostly implemented). In both curricula, competences do not include soft skills whereas their necessity has been felt since courses about communication skills and language, for instances, are present. It is recommended to improve learning outcome vs. acquired knowledge method usage, at least in the presentation of the programmes.
- 2.5. Assessment of student learning is carried out in accordance with the usual standards, though, especially in the diploma works, some shortcomings are perceived that do not comply with the qualification level.

This assessment is more advanced in Nursing where the department has issued a 'book of practice'. This requires the students to demonstrate the skills required under the supervision of a qualified nurse acting both as a mentor and as a competence evaluator.

The Expert Panel felt that as competencies were not clearly defined, this was contributing to the difficulty in the programmes seeing clear competencies which could then be used as a base for assessment.

Mechatronics could discuss the development of a log book similar to the 'book of practice' used by the nursing students.

It is recommended to improve the assessment criteria.

- 2.6. ECTS are set appropriately, according to a formula taking into account personal work and global student load. Evidence has been given about realistic evaluation of student work.
- 2.7. Before opening the Mechatronics programme, a comparison has been made against "equivalent" institutions in 4 countries. Content of the Nursing programme is regulated by European standards. However, the unsatisfactory number of supervisory teaching staff creates the risk of lowering courses quality and not meeting the expected international standards.

It is recommended to keep on looking after the recognised standards and/or demand changes.

- 2.8. Teachers have clearly shown that they experiment/choose teaching strategies adapted to the needs (group interaction, project assignment activities...). The size of the institution and the generation numbers allow very interactive relations between teachers and students.
- 2.9. VTŜ Bj is still a young institution and has not yet at its disposal all needed equipment. Present equipment is modern and up-to-date but not in sufficient number (electrotechnics) or even lacking (bio-medical simulators). Some of these are necessary to bridge the differences in prior education of students. To show the difference between education levels, it is the opinion of the Panel Expert that more sophisticated equipment (than that of partner colleges) be available in the institution. The case of very specific equipment (expensive or less used) could be settled through agreement with companies.

It is recommended that a multi-year plan be projected to improve coverage of needing pedagogical equipment and, when financial resources afford it, to own dedicated common equipment instead of relying on external institutions.

2.10. Practical application internships are in a skeletal form (10 days which cover only discovery of company structure and management). Situation is more satisfactory for nurses since education is closer to apprenticeship with many periods in hospitals. However, the number of hours dedicated to clinical practice needs to be clearly defined in line with the EU Directive (2300 hours over 3 years), accounting for hospital and class-room setting. This statement should take into account the needed 'catch-up activities' for the students entering from grammar schools.

It is recommended to allocate more time to practical internships throughout the curriculum with a progressive responsibility development, such as with the "classical" break up into simple worker, assistant technician and maybe autonomous technician during final thesis.

3. Students

- 3.1. Students come mainly from professional or vocational schools rather from grammar schools. From the results obtained in the past years, VTŜ Bj has recognised the need for a catch-up class in mathematics and physics and offered them as "zero week" with positive effect. The monitoring process led to add another course in engineering calculation.
- 3.2. Students are offered the possibility to become active in extra-curricular activities, such as hobbyist clubs, student contexts, sport competitions or "social" events. VTS Bj partly supports financially these activities (transportation cost for instance) and allows to use some rooms. However this is limited by the available space, building opening hours and student financial resources.

VTŜ Bj is encouraged to keep on encouraging extracurricular activities participating in the development of student autonomy and acquisition of "soft skills".

- 3.3. The size of the institution allows for easy and direct relationship between students and teachers. Duty for teachers contains time allocated to mentorship and advice. However, the below average ratio of teachers to students constitutes an obstacle to this task effectiveness. It is recommended to reach as soon as possible the official teacher-to-student ratio to globally improve the environment for competence development. In the meantime, VTŜ Bj might examine the usefulness of pairing last year students with first-year students to provide a form of peer support.
- 3.4. VTŜ Bj does not own any dormitory nor student restaurant. The workaround takes the form of agreements with local restaurants. This situation creates a serious handicap with the goal to develop international exchanges. It is also contradictory with the ambition to boost VTŜ Bj as a reference institution beyond the limits of the Bjelovar county.

It is recommended to consider student accommodation and nutrition as a critical factor in institution development.

3.5. Content of courses and relations to competences are clearly stated both in the Student's Guide (Studentski Vodič) and on the website. Moreover, at the beginning of each course, teachers explain the selected method of assessment. Appeal procedure is VTŜ Bj's standard. 3.6. There is not yet any alumni association (only one graduate generation in Mechatronics and none in Nursing.

With the help of VTŜ Bj, graduates are encouraged to create an alumni association as soon as possible, one by-product of it being fresh directly relevant information about employability of the curricula.

- 3.7. Students participate in the Professional Board (with at least 15% of total membership) and can therefore give students' point of view. They also have frequent direct access to their teachers to discuss matters related to courses and pedagogical matters. The Dean is also really available for discussion.
- 3.8. VTŜ Bj releases communication brochures, flyers, etc. and is present in various forums or "students fairs". The website is regularly updated.
- 3.9. Every student has a VTŜ Bj e-mail address which can be used to contact internal and external teachers (in the latter case, an answer is usually received within 2-3 days). A "suggestion box" is also located is a much frequented corridor for any written (eventually anonymous) communication.
- 3.10. Students have access to decisions stemming from their suggestions through their elected delegates in the Professional Board but information return from other channels is not well formalised and is very dependent on personal teacher initiative.

It is recommended to give the same attention (and publicity) to all information return channels.

4. Teachers

4.1. VTŜ Bj is suffering of insufficient supervisory teaching staff in Nursing. Since patient human life is at stake, this should be considered top priority. Mechatronics staffing is more satisfactory.

It is recommended that teaching staff reaches as soon as possible the official supervisory rate. See also 1.6.

4.2. Management has shown a grid where details about teaching staff are duly recorded: age, seniority, qualification, specialisation and others. A plan has been implemented to allow teachers to acquire higher degrees.

VTŜ Bj should remain watchful about development of human resources in number and quality as more are hired to cope with student numbers.

- 4.3. As already mentioned, Nursing is critically under supervised. This has a direct impact on quality and security of the programme. Mechatronics presents a more satisfactory state.
 It is recommended that teaching staff reaches as soon as possible the official supervisory rate (same as 4.1).
- 4.4. Concerning the ration between full-time teachers and students, the situation is the direct outcome of the number in the present staff. Nursing is critically under manned, while Mechatronics presents a more satisfactory state.

It is recommended that teaching staff reaches as soon as possible the official supervisory rate (same as 4.1 and 4.3).

4.5. VTŜ Bj is confronted with issues related to its early development where it has to hire teachers in sufficient number for a not yet well known institution. Teacher enrolment appears to be essentially local, at least in Nursing, hampering the possibility of a wider choice of candidates. As a consequence, nearly all teachers need skill development, which obviously cannot be conducted simultaneously for all for financial reasons. This inconvenience is less pronounced in Mechatronics.

It is recommended that development of teaching staff quality be implemented in line with multi-year commitment.

4.6. VTŜ Bj follows the national criteria for employment and promotion of is teaching staff but has not yet developed its own methods.

It is recommended that VTŜ Bj implements its own assessment methods for teaching staff qualification as soon as it made up for the shortage in teachers. The assessment method should be aligned as well with the given missions.

4.7. For the tables presented, taking account of part-time service, it does not seem there exists unusual discrepancy between teachers. However, "face-to-face" hours (in front of students) appear to be in the high range of European average.

It is recommended that the institution keep an eye on teacher duty time to avoid overload, particularly if hiring new teachers is delayed.

4.8. The institution takes a record of every teacher activity, inside and outside, and pay special attention to the teaching load to ensure quality and success. Non-teaching hours (mentorship for example) are accounted for when allocating courses.

5. Scientific and professional activity

5.1. VTŜ Bj, as a recent institution, is only in the starting phase of setting up professional activity. Cooperation exists in its local area and publishing activity looks promising. However, as mentioned in 1.1and 1.2 but maybe not enough emphasised, distinctive academic and scientific goals and ambitions are missing in the mission statement. This would help to position VTŜ Bj in a selected sub-domain of Mechatronics or Nursing and give it a fame beyond Bjelovar area.
It is recommended that guidelines for scientific and professional activity he adopted in

It is recommended that guidelines for scientific and professional activity be adopted in accordance with the general strategy of the institution.

5.2. Implementations of mechanisms for R&P activity are linked to the state of the guidelines. Refer to previous criteria.

Efficient mechanisms for controlling R&P activities should be implemented simultaneously with the definition of the guideline.

5.3. As exemplified in the self-evaluation reports, teachers are already watchful to tie relationships with companies and institutions all over Croatia. Some embryonic attempts are made towards teacher exchanges with neighbouring countries. Again, this could be facilitated if VTŜ Bj chooses a "niche" for its research or scientific activity (taking care not to cause adverse effect on the wide scope of teaching).

VTŜ Bj is encouraged to develop its rising cooperation both in economic and academic worlds.

5.4. VTŜ Bj has duly taken into account R&P activity in teacher duty. This activity is reported through a set of indicators and is a contributing factor to teachers' promotion.
VTŜ Bj is encouraged to allocate a reasonable part of teacher duty to R&P activity and continue to improve its monitoring process.

6. International cooperation and mobility

6.1. VTŜ Bj has adopted plans to encourage student mobility, for example applying for ERASMUS. Outbound mobility can be easier to implement, provided students are fluent enough in the target language (which is limiting factor towards English or German speaking countries), due to the fact that comparisons with concurrent curricula have been made. Inbound mobility will likely remain in the wish list as long as distinctive (not present in already known institutions) courses are not offered, exchange courses are not taught in a foreign language and student accommodation is not available.

VTŜ Bj should draw all consequences about its plan for mobility and upgrade its courses and student services before entering in the active phase.

6.2. Presently, nothing is organised to allow for student periods abroad. Anyway, part-time students cannot participate in exchanges, due to their work obligations.

It is recommended that the institution sets up exchange procedures as soon as all reciprocal agreements have been signed.

Among procedures it might be necessary to assess student proficiency in foreign language(s) through internationally recognised tests, attendance to courses requiring at list European level B2. However, the Expert Panel noted with pleasure that students already master English language in a professional context.

6.3. Teachers already participate in international cooperation as is demonstrated by the list of publications and congress attendance. A foreign professor from Germany has been appointed visiting lecturer in Nursing, while two nursing PhD hold public lectures in Switzerland. A PhD professor in Mechatronics is a representative of Croatia in the international Committee on GNSS.

It is recommended that VTŜ Bj continues to implement and improve all venues of international scientific cooperation.

6.4. Since Nursing is relatively well defined and regulated by the European Union, it is easier to tie links with international associations like European Federation of Nurse Educators. Nothing similar exists in Mechatronics.

It is recommended that VTŜ Bj be involved as soon as possible in international associations.

6.5. Present student accommodation and language used in course do not allow for attracting student from abroad. However, the Expert Panel would like to remind that physical resources are not enough per se but that the institution has to build its success and fame first.

The institution is encouraged to attract foreign students as soon as conditions for success are met.

6.6. VTŜ Bj is only in the preliminary steps of entering inter-institutional programmes such as Erasmus. As previously mentioned, some teachers are involved in international committees or associations but this is often a matter of personal initiative or previous commitments. International cooperation will come naturally when VTŜ Bj has matured a bit.

Management is encouraged to support teacher initiative in the field of international cooperation and create all necessary conditions for application to European programs such as Erasmus.

7. Resources: administration, space, equipment and finances

7.1. VTŜ Bj is quite young but offers the minimal "comfort" as defined by regulation in class rooms and study space. However, laboratories do not seem to be aligned with the expected standard for the target level of the institution, notably in Nursing. An effort should be undertaken on technical equipment acquisition. Despite the possibility of inter-library borrowing, titles are not offered in expected variety and quantity. The expert Panel has particularly appreciated the quality of "home-written" handbooks.

The institution is encouraged to invest in pedagogic equipment (laboratories and library mainly) to be able to compete with equivalent institutions.

7.2. Non-teaching staff amounts to 5 persons. From Expert Panel opinion, it is impossible to manage any sized institution with fewer than this number. Management made the right choice and did not spoil financial resource on non-teaching staff. It is likely that this staff can support more teaching personnel than the present situation without hiring new employee. The ratio teaching/non-teaching staff may appear high at first sight, but the Expert Panel thinks it is a mirror of VTŜ Bj youth and, consequently, rates this criterion as nearly conformant.

It is recommended not to increase non-teaching staff with the next teachers hiring.

- 7.3. Management spares a proportional amount of money for skill improvement at the benefit of non-teaching staff. Needs and work methods are anticipated so that no disruption in management would result.
- 7.4. As previously mentioned in 7.1, laboratory and skills equipment does not cover all needed fields in the Expert Panel opinion. Existing equipment is well aligned with expected goals, but many "minor" and some "specific" (and probably expensive) equipment are missing, notably in Nursing where it is necessary to compensate for lack of practice for students coming from grammar schools.

The Expert Panel is aware that the cost of equipment for specific areas may exceed the capabilities of such a small institution and, therefore, VTŜ Bj needs to take care of balancing the curriculum which must be matched against funding opportunities.

It is recommended to improve laboratory equipment in coverage and number.

- 7.5. Daily management is run with state-of-the-art technology, using advanced technologies when affordable, to ease work of staff, teachers and students. For instance, WiFi is available and member of EduRoam and display screens act as reminders for the day activities.
- 7.6. The library offers space compatible with present student number but might prove quickly limited with growth plans. Number of titles is a bit below average for the institution ambitions and mainly consist of "home-written" handbooks. A specific effort must be made for Nursing. Happily, an enthusiastic librarian is ready to help users and manages to borrow books from other libraries but it takes time to deliver the book.

It is recommended that VTŜ Bj invest in buying titles for the library and eventually subscribes to electronic publications.

7.7. VTŜ Bj has been created by the Town of Bjelovar and there is a strong commitment to support this higher education institution as part of local economic development. Even in case of drastic political change, the Expert Panel does not think that a new political team would rule out an actor contributing so actively to potentially improve employment and enterprise creation. However, diversifying income sources would be a means to face unexpected variations in public funding. This could be an incentive to promote and develop professional activity.

It is recommended that the institution secures its income by trying to diversify its financial sources to become less dependent on a single contributor.

7.8. VTŜ Bj has attached to the self-evaluation report with a comprehensive (and transparent) break-out of its income and expenditures. The Expert Panel noted with satisfaction that most of the funds are used for education. Administrative expenses are kept at a minimum. Representation and travel costs are under strict control. The Expert Team salutes the high quality management of the Dean.

FINAL REPORT AND RECOMMENDATIONS BY THE EXPERT PANEL FOR THE ACCREDITATION COUNCIL

Visoka Tehnička Škola u Bjelovaru has achieved to comply with most of the higher education criteria in a very short time frame. The most impressive result was to obtain an ISO 9001 certificate in December 2012, only four years after the effective beginning of courses, meaning quality management is at the heart of College action from the start.

Choices of curricula seem to be geographical based which is not the best criterion to insure permanence of the institution. A distinctive specificity (specialisation) ought to be pushed forward in order to position VTŜ Bj as a reference institution in Croatia for this specific sub-domain. Since VTŜ Bj hosts Nursing and Mechatronics programmes, some synergy between both could be looked after as a basis for this distinctive feature.

ADVANTAGES (STRONG POINTS)

- 1. Strong support from local authorities and potential employers
- 2. Highly motivated management and teaching staff
- 3. Quality oriented processes, light-weight decision making bodies
- 4. Favourable teacher to student ratio
- 5. Nice and peaceful localisation
- 6. Excellent financial management

DISADVANTAGES (WEAK POINTS)

- 1. Long-term strategy not clear in academic terms
- 2. Under-manned teaching staff (especially in Nursing)

- 3. No organised mobility yet and weak international cooperation
- 4. No analysis on causes of dramatic pass rate
- 5. Insufficient technical equipment in laboratories and rather poor library
- 6. Young institution, meaning processes still need to be tuned
- 7. There is no mechanism for coordinated monitoring and mentoring of young teachers.

RECOMMENDATIONS FOR IMPROVEMENT OF QUALITY

1. Management of the Higher Education Institution and Quality Assurance

- (1.1.) The Expert Panel recommends to define academic vision, goals and milestones within the socio-economic plan, clearly showing the positive contribution of higher education to this plan. Actions stemming from this academic plan should be sorted and prioritised, as well as written and approved as official document.
- (1.3.) It is recommended to better define the mission of the programmes. Each programme must emphasize associated advantages and differences in relation to given mission.
- (1.5.) VTŜ Bj should develop means to track the progress and careers of their graduates. This might involve developing an alumni association The information this provides should be interpreted in the local and national socio-economic context.
- (1.6.) It is recommended that VTS Bj checks compatibility of its plan with external constraints and eventually negotiate a multi-year commitment with its supervising authorities. In addition, the Expert Panel proposes to establish a mentoring system for young and inexperienced teachers in collaboration with other higher education institutions that have more experience in particular areas of the curriculum.

2. Study Programmes

- (2.1.) It is recommended to diversify the sources of data for programme monitoring. The Expert Panel also highly encourage VTS Bj to first consolidate success of its existing programmes before implementing new ones. See also recommendation 1.6.
- (2.2.) Some process should be created to update this survey, not relying fully on input of national data, and to use all available preferential relations, such as alumni, to anticipate changing demand liable to have adverse effects on employment rate (unemployment) success (shortage of graduates).
- (2.3.) It is recommended that the ratio of teachers to students be improved to reach at least the national standard and more books be bought by the library. A detailed analysis of the current pass rate should be conducted to determine the factors contributing to the

present figure. It is also recommended that the institutional resources for Nursing are developed urgently.

- (2.4.) It is recommended to improve learning outcome vs. acquired knowledge method usage, at least in the presentation of the programmes;
- (2.5.) Error! Reference source not found.
- (2.7.) It is recommended that VTS Bj checks compatibility of its plan with external constraints and eventually negotiate a multi-year commitment with its supervising authorities. In addition, the Expert Panel proposes to establish a mentoring system for young and inexperienced teachers in collaboration with other higher education institutions that have more experience in particular areas of the curriculum.
- (2.9.) It is recommended that a multi-year plan be projected to improve coverage of needing pedagogical equipment and, when financial resources afford it, to own dedicated common equipment instead of relying on external institutions.
- (2.10.) It is recommended to allocate more time to practical internships throughout the curriculum with a progressive responsibility development, such as with the "classical" break up into simple worker, assistant technician and maybe autonomous technician during final thesis.

3. Students

- (3.2.) VTŜ Bj is encouraged to keep on encouraging extracurricular activities participating in the development of student autonomy and acquisition of "soft skills".
- (3.3.) Error! Reference source not found.
- (3.4.) It is recommended to consider student accommodation and nutrition as a critical factor in institution development.
- (3.6.) With the help of VTŜ Bj, graduates are encouraged to create an alumni association as soon as possible, one by-product of it being fresh directly relevant information about employability of the curricula.
- (3.10.) It is recommended to give the same attention (and publicity) to all information return channels.

4. Teachers

- (4.1.) It is recommended that teaching staff reaches as soon as possible the official supervisory rate. See also 1.6.
- (4.2.) VTŜ Bj should remain watchful about development of human resources in number and quality as more are hired to cope with student numbers.
- (4.3.) It is recommended that teaching staff reaches as soon as possible the official supervisory rate (same as 4.1.).
- (4.4.) It is recommended that teaching staff reaches as soon as possible the official supervisory rate (same as 4.1. and 4.3.).
- (4.5.) It is recommended that development of teaching staff quality be implemented in line with multi-year commitment.
- (4.6.) Error! Reference source not found.
- (4.7.) It is recommended that the institution keep an eye on teacher duty time to avoid overload, particularly if hiring new teachers is delayed.

5. *Research and professional activity

- (5.1.) Error! Reference source not found.
- (5.2.) Efficient mechanisms for controlling R&P activities should be implemented simultaneously with the definition of the guidelines.
- (5.3.) VTS Bj is encouraged to develop its rising cooperation both in economic and academic worlds.
- (5.4.) VTŜ Bj is encouraged to allocate a reasonable part of teacher duty to R&P activity and continue to improve its monitoring process.

6. International Cooperation and Mobility

• (6.1.) Error! Reference source not found.

^{*} to be filled in by higher education institutions not listed in the Register of Scientific Organisations of MSES; related to the Criteria for the Assessment of Quality of Polytechnics and Colleges

- (6.2.) It is recommended that VTŜ Bj continues to implement and improve all venues of international scientific cooperation.
- (6.3.) It is recommended that VTŜ Bj be involved as soon as possible in international associations.
- (6.4.) It is recommended that VTŜ Bj be involved as soon as possible in international associations.
- (6.5.) The institution is encouraged to attract foreign students as soon as conditions for success are met.
- (6.6.) Management is encouraged to support teacher initiative in the field of international cooperation and create all necessary conditions for application to European programs such as Erasmus.

7. Resources, Administration, Space, Equipment and Finance

- (7.1.) The institution is encouraged to invest in pedagogic equipment (laboratories and library mainly) to be able to compete with equivalent institutions.
- (7.2.) It is recommended not to increase non-teaching staff with the next teachers hiring.
- (7.4.) It is recommended to improve laboratory equipment in coverage and number.
- (7.6.) It is recommended that VTS Bj invest in buying titles for the library and eventually subscribes to electronic publications.
- (7.7.) Error! Reference source not found.