



**RE-ACCREDITATION OF  
UNIVERSITY OF APPLIED SCIENCES VELIKA GORICA**

**Date of the site visit:  
19<sup>th</sup> March, 2013**

April 2013

## **COMPOSITION OF THE EXPERT PANEL**

- Prof. em. Dr. ir. Elie Milgrom, Université catholique de Louvain, Belgium (chair)
- Prof. Dr. Christian Millauer, University of Applied Sciences Ostwestfalen-Lippe, Germany
- Prof. Dr. Sirje Virkus, Institute of Information Studies, Tallinn University, Estonia
- Prof. Branimir Ružojčić, Polytechnics Pula – Higher Technical Business School, Croatia
- Alisa Kos, student, Polytechnic of Rijeka, Croatia.

The expert panel was supported by:

- Maja Šegvić, coordinator, Agency for Science and Higher Education
- Maja Briški, assistant coordinator, Agency for Science and Higher Education
- Lida Lamza, interpreter during the site visit and report translator, Agency for Science and Higher Education.

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# INTRODUCTION

## *Short description of the evaluated institution*

NAME OF HIGHER EDUCATION INSTITUTION: University of Applied Sciences Velika Gorica  
(henceforth: VVG)

ADDRESS: Zagrebačka cesta 5, Velika Gorica

NAME OF THE HEAD OF HIGHER EDUCATION INSTITUTION: Ivan Toth, Dean

### ORGANISATIONAL STRUCTURE:

The structure of VVG has been defined by the VVG Statute, Regulations on the Structure, Rules and Decisions of the Management Council and Academic Council and the Dean.

The core structural units in the structure of VVG are the professional education and educational units, and all the other structural units are geared towards realizing the activities of VVG, i.e. the core units.

The VVG management consists of the following bodies: the Management Council, the Dean, and the Academic Council.

### LIST OF STUDY PROGRAMMES:

The University of Applied Sciences Velika Gorica currently offers five professional study programmes and three specialist graduate professional programmes.

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

- Crisis Management
- Motor Vehicle Maintenance
- Aircraft Maintenance
- Computer Systems Maintenance
- Eye Optics.

The specialist graduate professional programmes last for one or two years:

- Crisis Management (one year, 60 ECTS credits)
- Logistics Systems and Processes Management (two years, 120 ECTS credits)
- Information Systems (one year, 60 ECTS credits).

NUMBER OF STUDENTS: 1.204 (598 full-time students, 606 part-time students)  
(figures from a meeting with VVG management)

NUMBER OF TEACHERS: 26 full-time, 68 external associates

NUMBER OF SCIENTISTS: 2

TOTAL BUDGET: in calendar year 2011: 19.634.940

MSES FUNDING: /

OWN FUNDING: 100%

#### SHORT DESCRIPTION OF THE HIGHER EDUCATION INSTITUTION:

VVG was founded in 2003 by the City of Velika Gorica, the University College of Applied Sciences in Safety and the Centre for Technology Transfer. Later, on 13 June 2008, the Centre for Technology Transfer from Zagreb transferred its founder's right to the City of Velika Gorica. In compliance with the Act on the Ownership and other legal matters, and the Act on Scientific Activities and Higher Education, VVG has today the status of a private higher education institution.

VVG currently proposes five professional study programmes and three specialist graduate professional study programmes of technical orientation. Apart from the higher education study programmes, VVG organizes professional and scientific conferences in the fields of its core activities, organizes and carries out programmes of permanent and lifelong education and learning for professionals in the area of protection and rescue, crisis management, information technologies, ecology, business, pyrotechnology, humanitarian demining, and handling explosives.

It is located in the very centre of Velika Gorica, with a part of lecturing halls and laboratories, whereas other lecturing halls are located in the immediate vicinity of the VVG, and the specialized laboratories are in the City of Zagreb (Ruđer Bošković Institute and the Shipbuilding Institute).

According to its own documents, "*VVG **Mission** means continuous implementation of the professional study programmes, specialist graduate study programmes, lifelong educational programmes and the realization of professional and scientific activities. VVG actively cooperates with the academic and industrial partners in the Republic of Croatia and abroad and provides the possibilities of internal and external mobility of its students and teachers, the development of multidisciplinary scientific and academic activities.*"

According to its own documents, “**VVG Vision** means continuous modernization of performing the professional and specialist graduate study programmes oriented to sustainable development in the area of technical sciences. By implementing the advanced technologies in the teaching process VVG shall ensure the quality. Through active cooperation with the partners from the industry, VVG shall maintain the level of organization of professional education, increase in the quality and competitiveness as well as lifelong adult learning. VVG wants to be a dynamic institution which promotes professional and scientific knowledge with immediate application in the industry and cooperation with the partners in EU. Such vision of VVG is the projection of the future development which needs to be realized by successful strategy.”

Structure of students enrolled: the majority comes from technical schools and the rest from gymnasium.

## ***The work of the Expert Panel***

For its work, the Panel of experts (henceforth called Panel) appointed by the Agency for Science and Higher Education in Croatia (henceforth called Agency) drew upon the Self-Evaluation Report, prepared by the University of Applied Sciences Velika Gorica (VVG). A site visit was carried out on March 19th, 2013. During the visit to the Institution, the Panel held meetings with representatives of the following groups:

- The Management;
- The Working Group that compiled the Self-Evaluation Report;
- Representatives of the Department of Quality;
- The students, i.e., a self-selected set of students present at the interview;
- Teachers;
- Teaching assistants;
- The Vice-Dean for Teaching, with the Head of the Centre for Scientific and professional activities and some Heads of Study programmes.

The Panel also had a tour of the library, IT rooms, the student register desk, a number of computer rooms, and some classrooms at the University of Applied Sciences Velika Gorica, where they held a brief question and answer session with the students who were present. The Panel also visited a laboratory for eye optics training, a Cisco networking laboratory, and an aircraft maintenance site where students in the aircraft maintenance study programme do some of their practical work.

## ***General observations***

1. The Panel found the site visit to be very well-prepared, even to the point of seeming somewhat staged; this sometimes gave the impression that there was little room for true spontaneity and openness. Still, the overall climate of the visit was very friendly and the people the Panel met seemed generally interested in contributing to the assessment process by trying to answer the Panel's questions.
2. However, whether it had to do with language difficulties or for some other, unknown reason, some of the answers given to the Panel members' questions failed to provide all the evidence the Panel was looking for. This led the Panel to believe that the purpose of the site visit was not always well understood by all the stakeholders it met. This impression was confirmed by the (to the Panel) surprising lack of criticism and ideas for improvement which emerged during the meetings. Could the issue of reaccreditation have prevented more spontaneous answers? Not all meetings were as productive and enlightening as was hoped for by the Panel.
3. The Panel was told that VVG had undergone an "audit" by the Agency at the end of 2012: this may have contributed to some misunderstanding about the re-accreditation process and its relation to the "audit". The results of this "audit" were not communicated to the Panel.
4. The Panel also wishes to point out that some meetings were not as fruitful as expected because of the large number of participants, many of whom did not contribute to the discussion, even after some prodding. This was certainly the case for the meetings with the students and with the teachers. It would certainly help to select smaller numbers of participants and to ask them to prepare in advance the information they wish to convey about their perceptions of the workings of the institution.
5. It is the Panel's opinion that, if institutions are to derive the most of the time-consuming re-accreditation process, they should use this effort as a major opportunity for analysis, self-reflection, and the formulation of development action plans. The emphasis should therefore be on **effective** compliance to quality assurance criteria rather than merely on **formal** compliance. This implies that the existence of processes and documents for all management aspects and for quality assurance is less convincing than the use made by the institution of the **results and outcomes** produced by these processes. This is an area where the Panel feels VVG obviously still needs to achieve significant progress.



6. The Panel was told several times during the site visit that many issues could be handled informally because most people know each other well since VVG is still a rather small institution. The Panel feels that, in view of current size and of its expected growth, VVG should accept that important issues need to be handled systematically, in a collaborative way, by bodies appointed for this purpose and with explicit responsibilities and achievable outcomes. Informal goes only so far.
7. During several meetings, the Panel got the impression that there seems to be a general view, within VVG, that the main issue to be handled by management and quality assurance is primarily solving whatever problems arise during operations. The absence of (unresolved) problems is seen as a sign that everything is as it should be: this could also explain why there is so much reliance on informal contacts within VVG (see previous item). The Panel feels strongly that the absence of (unresolved) problems is a necessary condition for quality, not a sufficient one. It is not, for instance, because there are few complaints by students and by teachers that the institution should not try to do more for its students and for its teachers.
8. Notwithstanding the fact that no interviewed students claimed it to be problematic, the Panel expresses serious doubts about the possibility, for 'part-time' students, to combine full-time jobs with their studies at VVG (albeit with an adapted schedule) within the same time frame (6 semesters) as regular 'full-time' students, while achieving the same learning outcomes.
9. Even though the Panel was not asked to assess the quality of the Self-Assessment Report (SAR), it must be stated that the document was not particularly easy to read because of its length (371 pages), because of its overly descriptive (and not enough reflective and analytical) nature, and because of its structure (many items could – and should – have been put in appendices in order to make the important facts and analyses appear more clearly in the main text). Also, the Panel regrets that many important items of information (e.g. the SWOT analysis, the report on the Internal Quality System Audit, action plans with timelines, etc.) were described in Croatian-language appendices which its foreign members could not understand. The Panel also feels that the Agency's guidelines to the institutions ask for more information than is strictly needed to apply the assessment criteria. Finally, the Panel feels that the quality assurance procedures within VVG (criterion 1.4) should have enabled the institution to produce a SAR better geared towards the needs of the re-accreditation process.

10. The Panel is fully aware that achieving the highest levels of quality in higher education is a long process. It encourages VVG to take advantage of the information contained in this report to further proceed along the road to improved quality and to base its follow-up more on the Panel's findings and recommendations than on the grades attributed for each criterion. It is in the nature of things that the Panel has spent more time on (and devoted more report space to) those issues which deserve improving than on those which seemed satisfactory and were highly rated: this should be taken into account when taking in the general tone and balance of this report.
11. The Panel wishes to thank everybody who participated in the re-accreditation process of VVG, with a special mention for the efficient help provided by the Agency personnel.

# DETAILED ANALYSIS BASED ON STANDARDS AND CRITERIA FOR RE-ACCREDITATION

## ***1. Institutional management and quality assurance***

- 1.1. During the site visit, the Panel received a copy of the document titled “Strategy of the University of Applied Sciences Velika Gorica for the Period 2010-2015”. This document presents the strategic planning of VVG, including strategic objectives, specific tasks to achieve the objectives, and performance indicators. Both this document and the Self-Assessment Report (SAR) mention a yearly review to monitor the implementation of the strategy, but few indications were given about specific, measurable goals and actual results. These may possibly appear in another document titled “Strategy of Quality Assurance at the University of Applied Sciences from 2012 to 2017”, which was not made available in English.

The Panel had some reservations about the wording of VVG’s Vision, which seemed overly general and not quite specific enough to distinguish VVG from its competitors. This vision statement contains references to “sustainable development” and to “implementing the advanced technologies in the teaching process” which the Panel couldn’t (and still can’t) fully understand.

- 1.2. The SAR contains a structure diagram of VVG’s organization (p. 7). During the visit, it turned out that the structure is not (yet) fully implemented and that some key responsibilities have not been attributed. The structure itself seems adequate, but little or no information has been provided regarding the timing for its full implementation and regarding its effectiveness.

The Panel could not ascertain whether the organizational structure is duly formalized in VVG’s legal documents, but it was told that this is indeed the case.

**Recommendation: VVG should set up procedures to systematically and periodically assess the effectiveness of its organizational structures and develop a strategic plan indicating when each position will be staffed and when important milestones will be reached.**

1.3. The Panel feels that each study programme of the institution is indeed aligned with VVG's mission; VVG has shown an obvious capability to analyze the needs of the market and to respond to these needs in its study programmes.

1.4. VVG is ISO 9000 certified; it has set up a Quality Assurance Department; many statistics and figures in the SAR were produced by VVG's quality assurance procedures. Still, the Panel wonders whether enough attention is devoted to the **results and outcomes** of these procedures. As already mentioned, the quality of the SAR itself could certainly be improved. Another example are the course learning outcomes, a number of which were made available in English during the site visit: some of them are of very good quality, while others are not. Either the latter were not subjected to a quality assurance process or the process failed to produce adequate results.

The Panel also notes that it has received no detailed information about **specific, measurable goals** for quality assurance nor about **deadlines** for achieving those goals. The roles and composition of various committees are described (SAR, pp. 21-24), but little or no information is given about their work programmes and about their achievements.

Finally, the interplay of ISO 9000 procedures and European Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) has not been made clear to the Panel, even though the question was asked explicitly. Again, the SAR mentions that this is described in a specific document (HANDBOOK OF QUALITY (ISO 9001:2008)), which was not made available in English before or during the site visit.

**Recommendation: having set up procedures for quality assurance, VVG should now focus on analyzing and exploiting the results produced by these procedures in order to foster a true culture of quality within the institution. It should also design project-based plans for the continuous improvement of quality based on the analysis of the results produced by quality assurance procedures.**

1.5. VVG certainly collects all kinds of information in the context of its quality assurance activities; students, staff, and employers are involved. The Panel expresses doubts about the actual relevance of some of the information provided in the SAR, such as, for instance:

*Passing rates*

- Passing rates for the first year are expressed in terms of number of students who acquire less than 1/3 of possible ECTS credits, between 1/3 and 2/3, and more than 2/3 (SAR, pp. 93-114); more relevant would be how many could achieve

100% of possible credits respectively for all enrolled full-time and part-time students. Same observation for many statistics provided about passing rates after two, four, and six semesters (SAR, pp. 217-273).

- Passing rates for study programmes (SAR, pp. 217-273) are expressed in terms of students enrolled in the last semester and not in terms of students enrolled in the first semester, as is done in other tables (SAR, pp. 164-167), which is more relevant. However, these passing rates do not distinguish between full-time students and part-time students.
- The low overall graduation rate for certain programmes is not explained in the SAR and contradicts some of the information which was provided during the interviews.

*Assessing learning outcomes (SAR, pp. 168-169)*

- The information shows which techniques are used to assess achieved learning outcomes (mostly a combination of quiz, tasks, and final examination), but provides no indication about the effectiveness of the assessment methods.

Generally speaking, the Panel has been given little indication about the **analysis** and about the **effective** use of collected information. The SAR itself is very much descriptive and contains few elements of true analysis. The sections on passing rates (SAR, pp. 93-114 and 217-273) and on enrollment (SAR, pp. 203-217) are cases in point. Many 'comments' are mostly rephrasing in words what was already presented in tables and/or diagrams.

**Recommendation:** see criterion 1.4.

- 1.6. VVG relies on student surveys and teacher self-evaluation surveys to ensure the quality of its teaching. The Panel asked for and received an oral translation of the survey forms. The Panel feels that the survey forms were designed by well-intentioned persons, but that they lack the professional quality needed to be able to derive really useful and significant results. The Panel is thus not convinced that conclusions drawn from these surveys are as useful as they could (should) be. It would also recommend considering peer review of teaching quality, since teachers may provide more accurate feedback to other teachers than students.

**Recommendation:** VVG should find ways to improve the quality of its teaching quality monitoring processes, including the survey processes; it should also consider peer review of teaching quality.

1.7. VVG has a Code of Ethics, which is published on its Web site (not in English). The Panel got the distinct impression, during some interviews, that this Code is not as well-known as it should be and that not all its provisions are effectively supported by all concerned parties. The Panel wishes to stress that public availability of important documents is a necessary condition, but not a sufficient one.

**Recommendation: VVG should make certain that all concerned parties have more than a cursory knowledge of the information contained in major policy documents and that they actively support and enforce their provisions.**

**Overall recommendation: VVG should strive to develop a true “culture of quality” within the institution. All stakeholders should reflect, in a cooperative and collegial way, on the true meaning of quality within VVG and on the goals to be achieved. Formal compliance to quality criteria should give way to effective and reflective compliance.**

## ***2. Study programmes***

2.1. The Panel confirms that VVG has processes to propose, approve, implement, and sometimes cancel study programmes. The SAR (pp. 115-124) convincingly outlines the process followed for the design of the Motor Vehicle Maintenance study programme and for the monitoring and improvement of all study programmes.

During the visit, the Panel found out that VVG’s departments play an important role in the management of study programmes. It would have been useful to be able to meet with those responsible for study programme management within the departments in order to obtain more detailed information regarding this section of the Assessment Criteria. Still, the Panel's general impression is that VVG has a good grasp of the needs of the employment market and that it indeed aims its study programmes towards fulfilling those needs.

The Panel would, however, have liked to obtain more information about the working of VVG’s study programme management processes in order to ascertain their effectiveness.

2.2. The Panel has found no reason to believe that enrolment in the various study programmes is not adequate to fulfil the needs of society, but it has seen no deep analysis of this issue. There is little feedback about the Alumni club.

2.3. The Panel has found no reason to believe that enrolment in the various study programmes is not compatible with the available resources. There remain some questions about the analysis of the pass rates and the measures taken based on this analysis (see also item 1.5).

The only problem which was mentioned is lack of space, but the Panel was told that VVG is investing in the construction of a new building.

2.4. As stated earlier (see criterion 1.4), some course learning outcomes descriptions do not meet expected standards of quality. Besides, the Panel also finds the study programme learning outcomes to be too general, i.e. not precise and specific enough to specify what a graduate should be expected to be able to do.

The Panel believes that programme learning outcomes should be considered as part of a (moral) contract between VVG and its students and between VVG and the employers of its graduates: precision is thus essential.

The Panel also feels that VVG should provide convincing evidence that the sequence of courses in each of its study programmes effectively lead to achieving the programme's learning outcomes. This issue should preferably be treated collaboratively by all teachers involved in a study programme.

It was somewhat surprising that only 4-5 students mentioned that they are familiar with course learning outcomes while teachers told that they systematically present learning outcomes at the start of every course.

**Recommendation: VVG should review all course and study programme learning outcomes and ensure (1) the quality of their formulation and (2) their mutual and global consistency.**

2.5. At its request, the Panel was provided with a few examples of course examinations. Based on these examples, it is not possible to ascertain that the assessment of student learning is effectively aligned with the stated learning outcomes, since no evidence was given of this alignment. According to the SAR and evidence found during the site visit, it seemed that traditional (mainly summative) assessment methods dominate.

**Recommendation: VVG's teachers should be encouraged to make the relationship between the course assessments (tests, examinations) and the course learning outcomes fully explicit.**

2.6. During several meetings, the Panel got the distinct impression that the basics of ECTS-based student workload evaluation were not widely understood. Even though it contains an accurate description of the procedure for attributing ECTS credits (p. 120), the SAR also contains tables (pp. 138 and following) which are full of contradictions between ECTS values attributed to different courses. Columns labelled "students workload" appear, according to certain interviewees, to contain only face-to-face hours, i.e. teachers' workloads. No indication is given in these tables of estimates of the amount of work to be done by students besides face-to-face activities and the amount of face-to-face activities varied considerably between the courses which had been allocated the same amount of ECTS credits. The Panel was told that teachers were able to estimate this quite accurately, but neither how this was done and validated, nor the results of this process are anywhere to be found. The Panel stresses the need to estimate – and monitor – the effective workload of students according to the standard definition of ECTS credits.

**Recommendation: VVG should review its procedures for estimating true students' workloads and use the results to attribute appropriate ECTS credits to every course.**

2.7. Based on the fact that none of the Panel members is aware of internationally recognized standards for the contents and quality of VVG's study programmes, the Panel can only verify that VVG issues both a diploma and a diploma supplement according to the requirements of the European Higher Education Area.

Even though the SAR (pp. 121-122) mentions comparisons between VVG's own study programmes and programmes from many other institutions, no detailed information is provided to support the claim that competencies acquired in VVG's programmes match those acquired in the other institutions' programmes (some of which are of a completely different nature and level).



The Panel expresses some concerns about the one-year (60 ECTS) specialist graduate professional programs, which may not conform to the standard two year requirement of the European Higher Education Area for post-bachelor programmes. This could hamper international recognition of these programmes and cooperation with foreign institutions.

- 2.8. From interviews with the teachers, the Panel could not verify that VVG's teachers are aware of many non-traditional teaching strategies or of students learning styles. The overall approach is very transmissive, with emphasis on (apparently often Powerpoint-based) lectures (so-called "direct teaching"). There seem to be no general awareness of current educational knowledge, which promotes active learning approaches (students learn primarily by doing, not so much by listening). A number of initiatives do exist (SAR pp. 124-126), but they appear to be mostly due to individual teachers and they are based mostly on intuition, not on true knowledge of current educational knowledge. There is little evidence of systematic sharing of best practices among teachers.

**Recommendation:** (see also criterion 4.5) **VVG's teachers should be made aware of alternative teaching strategies, specially geared towards the different types of learning outcomes aimed for and taking into account different learning styles; periodical occasions should be created for sharing best practices among all teachers within the institution. VVG should also periodically verify that teachers do use the most effective teaching approaches for their courses and that these activities are effectively aligned with the learning outcomes.**

- 2.9. The Panel was not made aware of any specific supplemental resource needs with respect to VVG's study programmes. It noted that most teachers develop their own material and keep it up to date, mostly because of the lack of standard textbooks in Croatian. The use of the Gaudeamus (i.e. Moodle) platform is mostly left to each individual teacher's initiative and is more geared towards information distribution and exchange than towards learning support: it has little added value for learning enhancement.
- 2.10. The Panel got the clear impression that VVG's study programmes provide many, indeed enough, opportunities for practical work. This was confirmed by the students themselves.

### **3. Students**

- 3.1. VVG uses criteria to determine enrollment quota (SAR, p. 93), but relies on diplomas acquired during previous studies for individual admission. It is difficult to know whether this results in alignment with future careers: the Panel believes that predicting student success in their careers based on admission criteria is not readily achievable.
- 3.2. The Panel was told that VVG provides adequate funding to the Students' Union to support students' extracurricular activities.
- 3.3. VVG has introduced a system in which a teacher is assigned as a mentor for a single class during a semester. The mentor is there to help students with whatever problems they may encounter and with their professional orientation. Both students and teachers confirm that the system works very well (even though there are apparently few problems which need solving).
- 3.4. The Panel found that VVG is well aware of the need to address this issue. A lot will improve in this respect with the new building being planned.
- 3.5. Students confirmed that they receive adequate and timely feedback on their tests and examinations. The Panel found, however, that many syllabi contain only cursory information about the assessment methods and procedures.
- 3.6. The Panel found that VVG is doing a good job of maintaining contact with its alumni; it might be useful to know more not only about employment status, but also about whether graduates are employed in the area of their professional studies.

Graduates are monitored through direct contact with employers, i.e. through a survey for employers and potential employers about the students who graduated from the study programmes at VVG (SAR, p.282). Since 2010, an Alumni club has been established; it gathers information about the employment of VVG students, as well as about their promotion work. A survey evaluates the competencies of students after graduation, employers' satisfaction, further needs of the employment market, etc. (SAR, pp. 282-283).

- 3.7. Students have representatives in various decision-making councils. They have confirmed that they feel that their requests and grievances are heard and acted upon.
- 3.8. Students confirm that VVG's information about its study programmes, learning outcomes, qualifications, and employment opportunities fulfill their needs (Internet, fairs, radio, public advertisements, etc.). Still, the Panel found the course syllabi to be of unequal quality.

**Recommendation: course syllabi should be reviewed in order to ensure their quality and their usefulness as an information tool.**

- 3.9. See criterion 3.7.
- 3.10. See criterion 3.7.

## 4. Teachers

- 4.1. The Panel found no evidence to suggest that the number and the qualifications of VVG's teachers would not adequately cover all disciplines taught, even though it was not always easy to recruit available competent specialists within Croatia. The Panel was told that hiring foreign experts is made overly difficult because of the strict Croatian regulations regarding teacher certification in higher education ("acceptance to teaching grade"). The Panel stresses that this is unacceptable in view of European principles regarding mutual recognition of diplomas and competencies and because it imposes a heavy burden to institutions which develop study programmes for which there are few Croatian specialists.
- 4.2. VVG has managed to increase the number of teachers according to the needs and the growth of the student population.
- 4.3. The Panel found that the number of fully employed teachers is below the required level in some study programmes, but this is again due to the lack of Croatian specialists willing to work full-time at an institution for higher education.
- 4.4. The Panel found that the general ratio is slightly above the legal maximum, but there are large variations among the study programmes, with some programmes being significantly understaffed in full-time teachers and relying very much on external part-time experts (see also criterion 4.3).
- 4.5. The Panel found (see criterion 2.8) that VVG's teaching staff technical competencies were much more developed than their pedagogical competencies. Even though the institution provides and funds opportunities for professional development, the Panel found no systematic policy for the development of much needed pedagogical competencies. Knowing a subject well is a necessary condition for good teaching, but not a sufficient one.

**Recommendation: VVG should set up and fund a systematic training programme for its teachers, with an emphasis on pedagogical competencies such as, for instance, (1) the effective alignment of learning outcomes, learning/teaching activities, and (formative and summative) assessments and (2) the practice of active learning approaches.**

- 4.6. VVG has a list of criteria (SAR, p. 301), but the Panel did not find out how and when these criteria are applied. Clearly, there are nation-wide standard procedures for admission

and readmission to teaching grades, but how this fits with VVG's own policies was not made clear.

- 4.7. The Panel could not get accurate information about the method used for calculating teachers' workload; there are contradictions between the information provided in the SAR (pp. 309-311) and what was told during the interviews. The effective workload of full-time teachers appears to vary widely. It also seems odd that some teachers manage to combine full-time teaching with full-time administrative responsibilities or even with activities at external institutions. Still, the Panel heard no complaints about this issue during the interviews.

**Recommendation: VVG should clarify the rules for workload assignment to its teachers. These rules should take into consideration different teaching approaches (see criteria 2.8 and 4.5).**

- 4.8. Those teachers who intervened during the interviews seemed to the Panel very committed to their teaching activities within VVG. External activities are subject to the authorization by the Dean.

## ***5. Scientific and professional activity***

- 5.1. A number of aims, ideas and projects have been mentioned, but VVG has not yet formulated formally adopted guidelines. The Panel was told that VVG aims to develop scientific research activities in view of being registered in the Register of Scientific Organizations.
- 5.2. The Panel could not identify strong mechanisms which ensure that research and professional activities are efficiently carried out. The SAR (p. 327) mentions a number of monitoring activities, but it does not indicate how remedial actions are undertaken when necessary.
- 5.3. The Panel found a number of statements regarding intentions of cooperation, but not much has been achieved yet.
- 5.4. The SAR shows enough evidence that VVG supports the professional activity of its teachers and monitors its evidence.

**Recommendation: VVG should produce a comprehensive plan which outlines the chosen priority research areas (focusing first on a few promising research lines), establishes research groups, formulates objectives, and clearly defines indicators to measure the progress of research.**

## **6. International cooperation and mobility**

- 6.1. VVG has defined a procedure for transfer students, but the Panel was not given information about the number of students who take advantage of this opportunity.
- 6.2. A small number of students have taken advantage of the opportunity to study abroad within the ERASMUS programme in the first year of its implementation at VVG.
- 6.3. VVG has intentions in this respect, but not much has yet been achieved. Some teachers and assistants have been abroad for relatively short stays.
- 6.4. VVG participates to a small number of international associations.
- 6.5. VVG has expressed some intentions in this respect, but not much has yet been achieved. Teaching in English has been envisioned, but has not been implemented due to the lack of candidates. Still the SAR mentions (p. 338) that foreign students will be able to study at VVG in the eye optics programmes. The Panel is not convinced that this should be a high-priority issue for VVG.
- 6.6. VVG has a number of cooperation contracts with a number of foreign institutions. This should be further developed. The Panel was told that joint MA programs with foreign institutions were difficult, if not impossible, to organize because of Croatian regulations about universities of applied sciences, which are not allowed to grant MA diplomas. This again seems in opposition with European policy.

**Recommendation: VVG should focus on collaboration with institutions which can help it achieving its strategic goals; it is currently more important to send students and teachers abroad than to spend lots of efforts attracting foreign students.**

## **7. Resources: administration, space, equipment and finances**

- 7.1. The current lack of space will be solved with the construction of the new building in the near future. Students expressed no needs besides the wish for a cafeteria.
- 7.2. The Panel found no reason to believe this ratio to be inadequate.
- 7.3. The Panel received little information about this specific issue.
- 7.4. The Panel had the opportunity to visit two laboratories (eye optics and Cisco networking), which appeared to be up-to-date. There are doubts about the facilities offered to students at the aircraft maintenance site the Panel visited.
- 7.5. The Panel heard no grievances about this issue. What it could see seemed certainly adequate.
- 7.6. The Panel was shown a library, which appeared to be used mostly as a lending and selling library for VVG's teachers' textbooks (22 m<sup>2</sup>, 651 books for 1.204 students, only 2 magazines). The Panel was somewhat surprised by the absence of other reference material and of scientific or technical journals for each of the different programs. One would surely expect to find at least one copy of all references mentioned in all the course syllabi. The Panel was thus not convinced that the library truly meets all the needs of all the students. Some students also expressed doubts in this respect.  
**Recommendation: VVG should make a study of the actual documentation needs of its students and staff and organize the library in order to address those needs efficiently.**
- 7.7. The information provided to the Panel indicates that VVG's financial health is without problems, but the Panel did not have the opportunity to delve into this issue.
- 7.8. VVG uses its own finances to provide opportunities for staff development.



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

The University of Applied Sciences Velika Gorica has grown steadily since its creation in 2003 and it seems poised to continue growing, which is a clear indication of its success. Its study programmes meet market needs and the institution has shown its capability to adapt quickly to keep meeting those needs. Many of the shortcomings which were identified may be attributed to its youth; none of them is fatal, but they should be addressed efficiently in order to guarantee the further harmonious development of the institution.

## ***ADVANTAGES (STRONG POINTS)***

1. VVG is highly adaptive and reactive
2. Staff highly engaged, dedicated, and motivated
3. High proportion of employed graduates
4. Excellent teacher-student relations
5. Very satisfied students: the student feedback about academic activities is very good
6. Strong growth and potential for growth
7. Practical teaching based on market's needs, which are effectively monitored
8. Reliance on experienced external specialists when needed
9. Existence of web-based resources and platform (Gaudeamus/Moodle) to support students and staff
10. Own publishing of necessary textbook material
11. Strong desire to develop VVG's research activities; some activities already in place
12. A number of life-long learning programmes
13. Sound business model and good financial health.

## ***DISADVANTAGES (WEAK POINTS)***

1. Study programme management pays too little attention to the effective alignment of learning outcomes, teaching and learning activities, and both formative and summative assessments

2. Insufficient plans for the development of teaching competencies of teaching staff
3. Not enough projects with industry
4. Not enough mobility of VVG students and staff to foreign institutions
5. Quality culture within VVG still to be further developed (procedures are not sufficient)
6. Some important issues are still addressed informally, which becomes harder with VVG's growth
7. Some infrastructure shortcomings e.g. laboratories, library facilities, cafeteria, student lodgings, etc. (planned new buildings should remedy soon)
8. Relatively high age of some of the permanent teaching staff may yield replacement problems in a few years
9. Plans for the development of research activities still much too general
10. Modest international cooperation
11. The overall graduation rate (with respect to initial enrollment) needs to be addressed.

# RECOMMENDATIONS FOR IMPROVEMENT OF QUALITY

## 1. Management of the Higher Education Institution and Quality Assurance

- VVG should strive to develop a true “culture of quality” within the institution. All stakeholders should reflect, in a cooperative and collegial way, on the true meaning of quality within VVG and on the goals to be achieved. Formal compliance to quality criteria should give way to effective and reflective compliance.
- VVG should set up procedures to systematically and periodically assess the effectiveness of its organizational structures and develop a strategic plan indicating when each position will be staffed and when important milestones will be reached.
- Having set up procedures for quality assurance, VVG should now focus on analyzing and exploiting the results produced by these procedures in order to foster a true culture of quality within the institution. It should also design project-based plans for the continuous improvement of quality based on the analysis of the results produced by quality assurance procedures.
- VVG should find ways to improve the teaching quality monitoring processes, including the survey processes; it should also consider peer review of teaching quality.
- VVG should make certain that all concerned parties have more than a cursory knowledge of the information contained in major policy documents and that they actively support and enforce their provisions.

## 2. Study Programmes

- VVG should review all course and study programme learning outcomes and ensure (1) the quality of their formulation and (2) their mutual and global consistency.
- VVG’s teachers should be encouraged to make the relationship between the course assessments (tests, examinations) and the course learning outcomes fully explicit.
- VVG should review its procedures for estimating true students’ workloads and use the results to attribute appropriate ECTS credits to every course.
- VVG’s teachers should be made aware of alternative teaching strategies, specially geared towards the different types of learning outcomes aimed for and taking into account different learning styles; periodical occasions should be created for sharing best practices among all teachers within the institution. VVG should also periodically verify

that teachers do use the most effective teaching approaches for their courses and that these activities are effectively aligned with the learning outcomes.

### **3. Students**

- VVG's course syllabi should be reviewed in order to ensure their quality and their usefulness as an information tool.

### **4. Teachers**

- VVG should set up and fund a systematic training programme for its teachers, with an emphasis on pedagogical competencies such as, for instance, (1) the effective alignment of learning outcomes, learning/teaching activities, and (formative and summative) assessments and (2) the practice of active learning approaches.
- VVG should clarify the rules for workload assignment to its teachers. These rules should take into consideration different teaching approaches.

### **5. \*Research and professional activity**

- VVG should produce a comprehensive plan which outlines the chosen priority research areas (focusing first on a few promising research lines), establishes research groups, formulates objectives, and clearly defines indicators to measure the progress of research.

### **6. International Cooperation and Mobility**

- VVG should focus on collaboration with institutions which can help it achieving its strategic goals; it is currently more important to send students and teachers abroad than to spend lots of efforts attracting foreign students.

### **7. Resources, Administration, Space, Equipment and Finance**

- VVG should make a study of the actual documentation needs of its students and staff and organize the library in order to address those needs efficiently.

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\* 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