



agency for science and higher education

**REPORT
OF THE EXPERT PANEL
ON THE
RE-ACCREDITATION OF
FACULTY OF CIVIL ENGINEERING
UNIVERSITY OF RIJEKA**

**Date of site visit:
3rd-7th December 2018**

January, 2019

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INTRODUCTION

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

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

The Agency's Accreditation Council appointed an independent Expert Panel for the evaluation of the **Faculty of Civil Engineering, University of Rijeka**.

Members of the Expert Panel:

- Prof. Leon Black, School of Civil Engineering, University of Leeds, United Kingdom of Great Britain and Northern Ireland, Panel chair,
- Prof. Damir Markulak, Faculty of Civil Engineering, Josip Juraj Strossmayer University of Osijek, Republic of Croatia,
- Asst. prof. Veljko Srzic, Faculty of Civil Engineering, Architecture and Geodesy, University of Split, Republic of Croatia,
- Prof. Rod Jones, School of Science and Engineering, University of Dundee, Scotland, United Kingdom of Great Britain and Northern Ireland,
- Darina Križanac, Faculty of Civil Engineering, University of Zagreb, Republic of Croatia, student.

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

- Management,
- Self-evaluation Report Committee,
- Students,
- Heads of study programmes,
- Full-time teaching staff,
- Assistants and junior researchers,
- Heads of doctoral programmes and leaders of research projects,
- Representatives of the business sector, potential employers.

The Expert Panel members had a tour of the work facilities, laboratories, library, IT classrooms, student administration office and classrooms, and attended sample lectures, where they held a brief Q&A session with students.

In accordance with the site visit protocol, the Expert Panel examined the available additional documents and study programme descriptions (learning outcomes).

The Expert Panel drafted this Report on the re-accreditation of the **Faculty of Civil Engineering, University of Rijeka**, on the basis of the **Faculty of Civil Engineering, University of Rijeka** self-evaluation report, other relevant documents and site visit.

The Report contains the following elements:

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

In the analysis of the documentation, site visit to the **Faculty of Civil Engineering, University of Rijeka** and writing of the Report, the Expert Panel was supported by:

- Matan Čulo, coordinator, ASHE,
- Viktorija Juriša, assistant coordinator, ASHE,
- Ivana Rončević, interpreter at the site visit, ASHE.

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

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

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

SHORT DESCRIPTION OF THE EVALUATED HIGHER EDUCATION INSTITUTION

NAME OF HIGHER EDUCATION INSTITUTION:

Faculty of Civil Engineering, University of Rijeka

ADDRESS:

Ulica Radmile Matejčić 3, Rijeka

DEAN:

Izv. prof. dr. sc. Ivana Štimac Grandić

ORGANISATIONAL STRUCTURE:

The structure of the Faculty is defined by the Statute of the Faculty and by the Ordinance on Positions at the Faculty. The organization units of the Faculty are scientific and educational and administrative and professional service units.

In the administrative and professional service units there are 14 employees, while other staff members are employed in scientific and educational units.

Legal, financial, accounting and student affairs and library, technical, administrative and auxiliary tasks, as well as other general affairs, are performed in administrative and professional service units. Administrative and professional service units include: the Dean's Office, the Office for Student Affairs, Scientific Research and International Cooperation, the Legal, Personnel and General Affairs Department, the Financial and Accounting Department and the Library.

- The scientific and educational units consist of five departments with nine chairs and five laboratories:

Department of Hydrotechnics and Geotechnics

- Chair of Hydrotechnics
- Department of Geotechnics
- Hydrotechnical Laboratory
- Geotechnical Laboratory

Department of Mathematics, Physics and Other Subjects

- Chair of Mathematics
- Chair of Physics and Other Subjects

Department of Structural Engineering and Technical Mechanics

- Chair of Structural Engineering
- Chair of Technical Mechanics
- Laboratory of Structures

Department of Roads and Traffic, Organization and Construction Technology and Architecture

- Chair of Roads
- Chair of Organization and Construction Technology
- Chair of Architecture and Urbanism
- Laboratory of Roads and Traffic

Department of Computer Modeling of Materials and Structures

- Laboratory of Materials

The departments are the basic organizational units of the Faculty, established based on the correlation and similarity of scientific and research, educational and professional activities. They may consist of chairs and laboratories as a lower form of organizational units. When determining the name, size and content of department activities, the existence of a scientific program, international reputation, the criteria for the organization of work and the achieved work results are taken into consideration. The departments are also responsible for coordinating the activities of pertaining lower structure units and for conducting professional work. If the department does not include chairs, its activity also implies the implementation of educational and scientific and research work.

The chairs usually include several related subjects and are the basic organizational form of educational and scientific and research work. Laboratories, which were established for several laboratory and related subjects, are the organizational units, where educational, scientific and research work is carried out. The faculty administrative and management bodies are the Dean and the Faculty Council.

The Faculty Council is an expert Faculty council which consists of: all tenured professors, all teachers in teaching and research positions who are employed at the Faculty with at least 50% of working hours, an elected representative of teachers in teaching positions and his/her deputy, an elected representative of associates in associate professions and his/her deputy, one representative of employees and student representatives. The Dean is assisted by four vice deans and the secretary of the Faculty, who together form the Dean's Board. Where appropriate, the Dean can even convene the Expanded Board (an extended board whose composition is determined by the Dean).

STUDY PROGRAMMES:

- Undergraduate University Study of Civil Engineering;
- Graduate University Study of Civil Engineering (courses of study: Geotechnics, Hydrotechnics, Engineering Modeling of Structures, Structures, Roads, Urban Engineering);
- Postgraduate University Study of Civil Engineering;
- Undergraduate Professional Study of Civil Engineering (courses of study: Building Construction, Civil Infrastructure Engineering);
- Specialist Graduate Professional Study of Civil Engineering (courses of study: Coastal Engineering and Construction and Municipal Infrastructure).

NUMBER OF STUDENTS: (Table 3.1. from the Self-evaluation report annex):**Table 3.1. Number of students per study programme for the current academic year**

Study programme name	Full-time students	Part-time students
Civil Engineering (114)	348	0
Civil Engineering (115)	139	0
Civil Engineering (116)	76	88
Civil Engineering (117)	0	51
Civil Engineering (118)	14	22
Total	577	161

NUMBER OF TEACHERS: (Table 4.1. from the Self-evaluation report annex):

Table 4.1.a Staff Structure - FOR UNIVERSITIES in the current academic year

Staff*	Full-time staff		Cumulative employment		External associates	
	Number	Average age	Number	Average age	Number	Average age
Full professors with tenure	2	63	-	-	-	-
Full professors	5	55,2	-	-	2	64,5
Associate professors	6	49,67	-	-	2	64
Assistant professors	15	41,33	-	-	2	61
Scientific advisor (permanent/ with tenure)	-	-	-	-	-	-
Scientific advisor	-	-	-	-	-	-
Senior Research Associate	-	-	-	-	-	-
Research Associate	-	-	-	-	-	-
Teaching grades	5	48,6	-	-	7	52,5
Assistants	12	32,08	-	-	7	42,5
Postdoctoral researcher	6	37,5	-	-	-	-
Employees on projects	4	34,25	-	-	-	-
Expert assistants	-	-	-	-	-	-
Technical staff	5	42,4	-	-	-	-
Administrative staff	18	45,67	-	-	-	-
Support staff	-	-	-	-	-	-

* Classification according to the Act on Scientific Activity and Higher Education

SHORT DESCRIPTION OF THE EVALUATED HIGHER EDUCATION INSTITUTION

The decision on founding the College for Technical Construction Trades (Viša tehnička građevinska škola – VTGŠ) was adopted on May 29, 1969. This day is considered as the beginning of higher education for construction workers in Rijeka. The first students enrolled in VTGŠ in the autumn of 1969. The university study of civil engineering (VII. level) started in 1971 at the Construction Department of the Faculty of Mechanical Engineering and Naval Architecture in Rijeka and lasted until the end of July 1976. In August 1976, a joint-action organization named Faculty of Civil Engineering Rijeka (hereinafter referred to as "the Faculty") was registered in the Regional Commercial Court of Rijeka with the purpose of educating "construction experts with college/university degree". On May 26, 1977, the Faculty integrated into the University of Rijeka. In 1978, the Faculty changed its name to the Faculty of Civil Engineering of the University of Rijeka. Since 1982, the Faculty of Civil Engineering of the University of Rijeka is a basic organization of associated labour within the labour organization of the Institute of Civil Engineering Zagreb (Građevinski institut Zagreb) and since July 1, 1991, the Faculty of Civil Engineering in Rijeka is an independent scientific and educational as well as scientific and research institution. Pursuant to the Higher Education Act, since 1994, the Faculty is a public higher education institution within the University of Rijeka, which organizes and implements university studies, scientific and high-skilled work in the scientific field of civil engineering. The Faculty is a science and research legal entity with the title University of Rijeka Faculty of Civil Engineering in Rijeka.

Since its foundation, the Faculty has been registered at Podhumskih žrtava 4 Street. However, due to the lack of space, classes were held on several locations. After the Faculty was moved in the building in Viktor Cara Emina Street in 1985, classes were held at a single location. In November 2011, the Faculty was relocated to a newly constructed building at the University of Rijeka Campus, which completely solved the problem of lack of space. The new building houses not only lecture halls and office space, but also five laboratories.

At the time of its establishment, in 1976, only six teachers and two assistants were permanently employed. In 1978, the permanently employed teaching staff consisted of 21 teachers and 8 assistants. Since then, the Faculty has continuously been increasing the number of its staff members and currently has 80 employees.

BRIEF ANALYSIS OF THE INSTITUTIONAL ADVANTAGES AND DISADVANTAGES

ADVANTAGES OF THE INSTITUTION

1. The quality and attitude of the students is excellent, be they undergraduate, graduate or postgraduate.
2. The laboratory infrastructure is world-class, offering great potential for future development.
3. There is a strong cohort of newly appointed, dynamic academic staff.
4. Support for international activities is very good.

DISADVANTAGES OF THE INSTITUTION

1. There is concern over student progression, with a very large number of students having to retake at least one semester.
2. While quality assurance measures are in place, their application is still not embedded within the culture of the Faculty.
3. Clear and transparent procedure for recruitment of the new teaching staff as well as promotion should be established.
4. There is the need for the initiation of regular and formalised engagement with external stakeholders. For example, an industrial advisory committee should be established with regular meetings and a clearly-defined remit (inputting into student education, research and contracts).
5. Engagement with the world-class laboratory facilities should be improved. This will entail more undergraduate use of the labs and encouragement of staff to develop their research programmes.

LIST OF INSTITUTIONAL GOOD PRACTICES

EXAMPLES OF GOOD PRACTICE

1. The staff commitment to student education is excellent. This was clear from discussions with students and from policies regarding contact hours and provision of course material.
2. The insistence of staff providing timetabled consultation hours is to be applauded.
3. The Faculty rewards research and teaching excellence with payments into staff accounts. The procedures for identifying research and teaching excellence are clear and well understood.

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

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

Analysis

- The Faculty has established a quality assurance framework and a number of quality assurance policies have been introduced. However, these are not always implemented effectively. The Faculty is aware of this and is making efforts to improve.
- The Faculty has incorporated some, but not all, of the recommendations from the previous review.
- There is considerable evidence of academic freedom within the Faculty, both with regards to teaching and research.
- The Faculty website provides comprehensive information to students in Croatian and English. However, information for external stakeholders was not readily available. Information was often limited to lists of available equipment and ongoing projects.
- The Faculty and its graduates are very highly valued within the local community. The Faculty contributes to the annual local “Rivers of Technology”.
- Lifelong learning is no longer a key aspect of the Faculty’s work, since it is no longer a professional requirement for chartered status.

Recommendations for improvement

- Quality Assurance protocols need to be formalised and consistently applied within the Faculty. With regard to this, a formal external stakeholder committee should be established. Formalised quality assurance protocols for the setting and marking of exams and coursework is needed, including the development of an “exam board”.
- The Faculty needs to examine ways by which student feedback can be gathered more effectively, feeding this back into ECTS weightings.
- Recommendations outstanding since the 2012 accreditation visit need to be considered where these have not been explicitly mentioned elsewhere in the report.
- Academic integrity should be stressed to students early in the teaching cycle. The Faculty could consider the inclusion of research ethics as part of a taught element for the undergraduate dissertation.
- The website should be improved and updated for external stakeholders.

- The Faculty should consider hosting a series of public lectures throughout the year, perhaps highlighting recent research highlights. Staff are encouraged to engage with media outlets to highlight their work.
- It is recommended that the Faculty regularly re-assess whether there is need for lifelong learning, and provide courses when appropriate.

Quality grade

Minimum level of quality

II. Study programmes

Analysis

- Study programmes and recruitment quotas are developed in accordance with relevant strategic documents with clearly defined missions. The Faculty has the facilities to deliver the study programmes, and general stakeholder feedback is positive. Recent graduates said that they felt that the study programmes prepared them well for work as civil engineers.
- Learning outcomes are clearly defined at the course level, but may differ from course to course. No quality assurance procedure is in place regarding the grading process. The results of assessment of achieved learning outcomes, arising from a 2015 HKO project have not been kept up to date. However, while stakeholders are not formally involved in revising learning outcomes, they had a positive attitude towards graduate competence.
- A lack of the feedback on learning outcomes, at least at the programme level, led to an inefficient system with differences in the demands for meeting learning outcomes.
- There have been no comprehensive revisions to study programmes since 2008, but several minor revisions have been done. A detailed revision of study programmes is planned for the next academic year.
- Suggestions arising from the previous re-accreditation cycle have not been fully implemented to date. No effective procedures for ECTS and workload balance assurance have been implemented. Stakeholders are not routinely involved in the study programme planning and revision procedures.
- There was evidence of an imbalance between the workload and associated ECTS credits between courses.
- Students bemoaned a lack of student practice. Although the Faculty tries to address this there was clear student demand for more. However, some students said that they had felt their presence on site was considered an inconvenience by their site advisors. Conversely, industry was eager to play its part in aiding this, but emphasized difficulties in finding suitable resources for the students.

Recommendations for improvement

- The Faculty should strategically garner data from stakeholders with focus on industrial needs and trends. This should be used, together with recommendations during study programme revisions.
- The Faculty should formalise examination procedures, within the formal QA system. Internal assurance systems of grading objectivity should be organised, with the formation of an “exam board”.
- The Faculty should adopt recommendations from previous quality assessment procedures. The procedure for revising study programme should ensure that the effectiveness of changes is assessed, and planned changes should involve external stakeholders.
- A procedure for the recognition, assessment and implementation of ECTS and workload balance is needed.
- The Faculty should strive to deliver different types of student practice (project design, project management, site work). Alumni and local industry can assist with this.

Quality grade

Minimum level of quality

III. Teaching process and student support

Analysis

- Information on admissions is available on a Faculty website. The Application Criteria are consistently applied. Selection of candidates from other faculties, with appropriate prior knowledge, is possible, but on an informal basis.
- Data on student performance is collected and analysed at the end of each semester. Recent years has seen a duration of the Undergraduate University Study of 3-4 years and on Undergraduate Professional Study of 3,5-4,5 years. Very few students met their obligations on time.
- The Faculty has recently introduced a system of appointing every full-time student a teacher-counsellor. Students also get support through a student-mentor system. The timetable makes allowances for part-time students. The office for Student Affairs is similarly available to all and is recognised as being the best in the University. The HEI provides the Psychological Counselling Center, the Office for Disabled Students and the Office for Career Planning.
- Support for students from vulnerable and under-represented groups is informal. Support is offered only if the students request it from the Dean and those issues are solved on an individual basis. However, support for students with physical disabilities is appropriate.

- Library facilities are not appropriate. Administrative staff are approachable to all students, but there is a lack of technical and professional staff.
- The Faculty effectively operates a variety of teaching methods, encouraging interactive learning. Research-based learning is recognised dominantly at graduation level studies and it is related to study programme level learning outcomes.
- The availability of staff to students is exceptional.
- The Faculty has an excellent approach to internationalisation, both with regards to outgoing and incoming students. However, there is no formal assessment of student satisfaction with the process. Incoming students are well catered for, with numerous classes delivered in foreign languages.
- Ordinances regarding the grading procedure are defined and published at the Faculty level. Various assessment procedures are used and the examination procedure is defined within the study programme and introduced and communicated to students as the semester starts.
- University regulations only allow appeals of terminal assessment, yet the Faculty is increasingly using in-class tests and other non-terminal assessment. This restricts student's right of appeal.
- Students are well-regarded by local employers, but more could be done to get students to engage with these stakeholders. More could be done to follow up career progression with recent graduates.
- The Faculty did not show a clear strategy for determining study programme enrolment quotas. Numbers increased and decreased over time, with no clear benefit to students.

Recommendations for improvement

- The transfer process should be formalised.
- Procedures to monitor student success at the Faculty level are needed. Variability in the requirements for ECTS credits needs to be addressed.
- The Faculty should introduce QA procedures regarding the setting of assessment, double marking and the setting up of an exam board to discuss performance on courses before final marks are released to students.
- More research-based learning is needed on undergraduate study programme and more laboratory time.
- Continue with lecturers' motivation and their commitment to students, maintaining the excellent levels of student satisfaction with access to staff.
- A professional support office to guide students through study programmes and offer advice when needed is suggested.
- It is recommended that the Faculty establish procedures and services for under-represented groups of students.

- Faculty Library strategic development is proposed.
- Foreign students should be able to spend an entire study cycle at the Faculty and procedures should be formalised regarding incoming student enrolment and gathering of outgoing student feedback.
- Double marking should be introduced to the Faculty.
- Internal procedures for consistent grading and objective assessment should be introduced.
- More opportunities between students and employers should be developed, including career days and interaction with recent alumni. This should be coupled with a follow-up system for monitoring student employment.
- Quota planning mechanisms should be based on a systematic, long term analysis process aligned with both national and regional level recommendations.

Quality grade

Satisfactory level of quality

IV. Teaching and institutional capacities

Analysis

- There is a slight shortage of staff to deliver the programmes but staff qualifications are appropriate. Staff workload is not uniformly distributed.
- There are plans for recruitment and promotion, but some of the processes for deciding on new staff are not clear to all.
- Staff are given ample opportunities for personal development and the motivation of teachers was evident.
- There is a need for better support and motivation for research activities. There is support for professional activities, but this is not widely implemented across the faculty.
- The teaching and research facilities within the Faculty are excellent. However, library facilities (physical and online) are not of the required standard.
- The Faculty manages its financial resources transparently. The financial reports are submitted to the Faculty Council annually. Additional sources of funding are coming from scientific projects, professional work and tuition fees.
- Funds are then allocated for improving teaching, maintenance of laboratory equipment, literature, computer programs, financing of field trips, etc.
- Financing of scientific research was not as clear as for other aspects of activity.

Recommendations for improvement

- The number of the full-time teachers on the university undergraduate study programme of civil engineering should be increased in order to achieve legal requirement.
- A workload model is needed to allow management to understand demands for teaching and research and to support the development of a balanced portfolio.
- Clear and transparent procedure for recruitment of the new teaching staff plus promotion should be established.
- There is a need for a formal procedure for gaining and monitoring of teachers' professional skills. Staff should be encouraged to submit project proposals and undertake ongoing mobility.
- Staff should be encouraged to become Chartered Civil Engineers, which would also assist with connections with the industrial sector.
- It is strongly recommended that library space is expanded or even moving library to another part of the building.
- Thought needs to be given as to how to support research ideas and collaboration with industry.

Quality grade

Satisfactory level of quality

V. Scientific/artistic activity

Analysis

- Teachers and associates are committed to high quality research, but outputs are variable. There is no statement about the number of papers that is considered appropriate and it is not clear whether staff are aware of this.
- As an average figure the metric of 0.6 papers/staff/5 years is very low. Furthermore, the h-index of staff and the number of citations of papers are lower than would be expected.
- There is high quality evidence that a good number of PhD theses have been completed. However, the range of research topics is limited and dominated by 4 mentors.
- Projects are taking place in partnership with industry, leading to publications, grants and other research support. Teaching staff are involved in scientific projects, leading to the publication of papers. There is evidence that this is leading to an increase in the number of papers published.
- Staff have been received national and international awards. There are a large number of professional and scientific projects both locally, nationally and internationally funded.

- Faculty research strategies were developed in response to the University's research strategy which was in response to the EU's research focus. Some staff reported that they had inputted into the development of the research strategy.
- Funds are available for conference participation. Approval was via the Dean rather than the Vice Dean for Research.
- At present there is limited external input into the research planning process.
- Research infrastructure is excellent and each laboratory has a dedicated technician and staff member to supervise the area and activities. There is a need to develop a strategy for the future maintenance and renewal of equipment.
- The Vice Dean for Research meets monthly with Heads of Research with a 'fluid' agenda. However, there was insufficient management data available for him to assess whether individual staff activities were adequate.
- There was concern that the provision of key journals was inadequate. Subscriptions have recently been reduced, to the detriment of staff and students.
- Appropriate lists of publications, scientific activities are recorded by the Faculty.
- Students are encouraged and supported to write papers in high quality journals. Graduate and postgraduate students are involved with scientific work, but this does not extend to undergraduate students.

Recommendations for improvement

- A strategy is needed for increasing the number of papers and their impact.
- The Vice Dean for Research should be provided with sufficient management data to be able to support staff to publish.
- Create an Industrial Advisory Panel who can contribute to the development of research strategy.
- Invite internationally-known academics to present cutting edge research.
- Invite the above to input into research strategic planning.
- It is recommended that the Vice Dean for Research approves conference travel.
- The provision of books, databases and technical support documentation in the Faculty Library should be reviewed and the availability of key journals should be enhanced. This provision should be aligned with the Research Strategy and reflect the aim to publish in Q1 journals.
- Enhance the 'Research' web pages to reflect the 'capability of the Faculty and explain how industry can access laboratories through a single point of contact. Each research project should have dedicated web pages.
- Given the importance of the project work, it is recommended that a procedure is established that communicates this with newspapers and similar media.

Quality grade

Minimum level of quality

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

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

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

Analysis:

The Faculty has clearly developed a number of Quality Assurance policies following the last accreditation visit and a number of policies are in place. However, the implementation of these policies often occurs in a somewhat ad-hoc manner. This has therefore limited the effectiveness of some of these valuable policies and hindered a coherent improvement in quality.

With regard to student education, the Faculty has implemented a number of measures, for example regular staff-student committees and the introduction of more non-terminal assessment. But, this has thrown up some other issues. For example, the University regulations only allow students to appeal terminal assessment. Thus, problems within some modules has led to apparent variability in student workloads and then high failure rates for in-class tests, which could not be appealed.

The Faculty has attempted to ensure that quality control processes help to inform its strategy, and there are certainly quality assurance procedures in place for all aspects of Faculty activity. However, these are not always implemented to the same degree. Despite this, stakeholders were often aware as to how had previously fed, or could feed, into the strategy and there appeared to be widespread recognition and acceptance of the strategy.

The Faculty collects a wide range of data and uses it to inform development. They are aware as to when this has and has not been effective. There was evidence of the Faculty reflecting on deficiencies in the quality of the data collected and making plans to improve.

The Faculty has introduced some measures to aid staff development. For example, the Faculty has paid for staff to attend pedagogical training and has introduced recognition of research and teaching excellence by making annual payments into Faculty staff accounts.

Recommendations for improvement

- It is strongly recommended that Quality Assurance protocols are formalised within the Faculty. This includes, but is not limited to, formalisation of an external stakeholder committee to include alumni and industry.
- Formalised quality assurance protocols for the setting and marking of exams and coursework is strongly recommended. For example, exams and their respective mark schemes should be checked by a second staff member before being set. All exams should then be double marked. Finally, exam marks should be presented to all staff at an “exam board” before release to students. Abnormal exam performance can then be discussed and marks amended if necessary, before being released to students.
- It is recommended that undergraduate and postgraduate research dissertations be double marked, by the supervisor and an independent staff member.
- The Faculty needs to examine ways by which student feedback can be gathered more effectively. Students and staff accepted that not enough students completed the module surveys. Yet these surveys were the means by which decisions regarding student satisfaction and changes in ECTS credits were determined. These surveys were also used to determine student workloads, which were found to vary from subject to subject.

Quality grade:

Minimum level of quality

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

Analysis

The Faculty has implemented some of the recommendations from the previous accreditation visit. In particular, key highlights include; the number of staff has increased significantly, especially at assistant professor level. The labs have been established and equipped to a very high standard. Measures to reward teaching and research excellence have been introduced. There appears to be greater variety in both teaching methods and in student assessment.

However, there were a number of key recommendations from the previous accreditation visit which have not been implemented. These are as follows:

- There has not been formalised development of strong criteria for personal development.

- While the Faculty acknowledges variations in student workload per ECTS credit, there has not been a thorough assessment of the extent of this, nor consideration as to how this may be addressed.
- External stakeholders have not been consulted sufficiently in study programme revisions.

In addition to the Accreditation visit in 2012, there was a Quality Assurance Audit in 2015 where the Faculty was found to have a developed Quality Assurance system. The Panel considers that this assessment may not have considered some of the recommendations from 2012 and that there remain some outstanding actions from the 2012 accreditation visit.

Recommendations for improvement

- Key recommendations, where appropriate, are covered elsewhere in this report.
- It is recommended that recommendations still outstanding from the 2012 accreditation visit which are not mentioned elsewhere in this report still be considered and implemented where possible.

Quality grade:

Minimum level of quality

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

Analysis

Throughout the visit, there were numerous examples of where the Faculty supports academic freedom. Staff are free to undertake research as they see fit. They also have a degree of freedom (within the constraints of the ECTS workload) to modify their teaching content and method of delivery. This should all be applauded.

There was evidence that students were made aware of the importance of academic integrity and appropriate mechanisms were in place to detect and punish unethical behaviour.

Recommendations for improvement

- At present, students are informed of the need for academic integrity and the penalties for transgression during their first days in the university. This is often a time of great upheaval for students and it is therefore recommended that the need for academic integrity be also introduced early in the teaching cycle.
- The Faculty could consider the inclusion of research ethics as part of a taught element for the undergraduate dissertation.

Quality grade:

High level of quality

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

Analysis

The Faculty has a comprehensive website. This site provides details of all study programmes in Croatian and English. Details are provided on admissions criteria, quotas, study programmes and learning outcomes, plus other things.

The self-evaluation makes reference to dissemination via the local press of forthcoming activities, recruitment and open days.

Information for external stakeholders was not as readily available online. Information was often limited to lists of available equipment and ongoing projects. There was minimal information available for external stakeholders regarding student performance.

Recommendations for improvement

- The website should be improved and updated regarding research activities and how stakeholders may engage with the Faculty. This could include contact details plus case studies of effective collaborations showing how the Faculty have previously engaged with stakeholders.

Quality grade:

Satisfactory level of quality

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

Analysis

In an applied field such as civil engineering, it is immediately clear that the Faculty contributes to society. Discussions with employers and other stakeholders illustrated that graduates from the Faculty are very highly valued within the local community. Furthermore, examples were given as to how the Faculty had contributed in other ways. For example, advice and labour was provided following a local landslide. Additionally, space has been made available within the Faculty for ad-hoc meetings hosted by the local Chamber of civil engineers.

The Faculty contributes to the annual local “Rivers of Technology” event via a PhD conference, a day highlighting their work to local schoolchildren, and a day of round-table discussions.

Recommendations for improvement

- In addition to the Rivers of Technology event, it is recommended that the Faculty consider hosting a series of public lectures throughout the year, perhaps highlighting recent research highlights.
- Staff are encouraged to engage with media outlets to highlight their work.

Quality grade:

Satisfactory level of quality

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

Analysis

There has been a change in requirements for lifelong learning, where it is no longer mandated for chartered status. As such, many institutions have cut back significantly on their provision of lifelong learning. The Faculty has likewise reduced its lifelong learning provision, but still provides a number of courses on a regular basis.

The Faculty does ensure that its staff benefit from lifelong learning as part of their professional development. For example, a number of staff attended pedagogical training, funded by the Faculty. The requirement of PhD students to spend several months in an overseas institution should be considered a good indication of the Faculty’s commitment to lifelong learning.

Recommendations for improvement

- It is recommended that the Faculty regularly re-assess whether there is need for lifelong learning, and provide courses when appropriate.

Quality grade:

Minimum level of quality

II. Study programmes

2.1. The general objectives of all study programmes are in line with the mission and strategic goals of the higher education institution and the needs of the society.

Analysis

Study programmes given by the Faculty are developed in accordance with relevant strategic documents with a clearly defined mission. The Faculty follows the need for specific qualifications, thus developing and adapting study programmes based on relevant needs. Study programme enrolment quotas are aligned with Croatian Employment Service recommendations regarding the admission policy for the local area, although the Faculty was sometimes faced with the problem of filling its quota during the analysed period.

The capacity of the Faculty to deliver the study programmes is assured by the newly equipped Faculty building and teaching facilities.

General feedback from the stakeholders and managers of engineering companies within the local area is overall positive. Students are judged to have achieved appropriate qualifications after graduation from the Faculty. Recent graduates said that they felt that the study programmes prepared them well for work as civil engineers.

Since the civil engineering sector relies on the global economic state, which is overall positive at present, the need for additional graduates is emphasized at the market level.

After graduation at respectively, undergraduate professional and graduate university level, students can attend to national level exam to get a certificate and membership of the Croatian Civil Engineering Chamber.

Recommendations for improvement

1. The Faculty should strategically develop a system of data processing, especially with focus on industrial needs and trends. This should be used during enrolment quota planning, distinct from financially based planning.
2. Recommendations from professional organisations should be considered during study programme revision procedures and new development of the new Architecture study programme.

Quality grade

Satisfactory level of quality

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

Analysis

The Faculty has a tradition of taking part in HKO (Croatian Qualifications Framework) projects since 2006. This is recognised as a benefit and has led to study programmes being developed in accordance with relevant demands and requirements of the specific programme level of study.

Learning outcomes, both general and specific, are aligned with Faculty mission and vision, but suffer from a lack of considered recommendations from professional associations.

Relevant study programmes are published on the Faculty's web page

Recommendations for improvement

1. More focus should be given to gathering opinions and analysing data from recent graduates and their employers. As products of the Faculty, after some time spent in industry, they can be an appreciated source of relevant information about possible improvements within the study programme and Faculty development.
2. Continued participation in HKO and EKO projects is warmly suggested.

Quality grade

Satisfactory level of quality

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

Analysis

Learning outcomes are clearly defined at the course level, as well as appropriate teaching methods and examination procedures. These learning outcomes differ appropriately from course to course. Still, no quality assurance procedure is established or applied during the grading process, which would potentially lead to subjective assessment of learning outcome achievement.

Results of student and stakeholder assessment of achieved learning outcomes, arising from a HKO project which ended successfully in 2015 has not been kept up to date. Although stakeholder and alumni groups emphasized that they are not involved in any formal procedures regarding revision of learning outcomes, they showed an overall

positive attitude towards graduate competence and their involvement in civil engineering projects they deal with.

A lack of the feedback on learning outcomes, at least at the programme level, led to an inefficient system with differences in the demands for meeting learning outcomes. These learning outcomes are mainly defined by lecturers (teaching staff) alone.

Recommendations for improvement

1. It is highly recommended that the Faculty implement external examiner procedures during the examination period, within the formal QA system.
2. Furthermore, internal assurance systems of grading objectivity can be organised with present teachers, as was successfully done for internal lecture (teaching) quality assessment.

Quality grade

Minimum level of quality

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

Analysis

Although comprehensive study programme revisions are proposed to be done every five years, the latest was done in 2008. Since then, several minor revisions have been done and reported through the self-evaluation report. The Vice Dean for Education and Student Affairs announced a detailed revision of study programmes is planned for the next academic year, together with a new undergraduate university study programme in architecture in the near future, as stated in the Self-evaluation report.

Suggestions arising from the previous re-accreditation cycle have not been fully implemented to date (see 1.2). No effective procedures for ECTS and workload balance assurance have been implemented. Information is mainly collected from the student population via different surveys (with student engagement in the process being limited at times). Stakeholders, including industry representatives, emphasized that they are not routinely involved in the study programme planning and revision procedures, despite involvement in the HKO project.

There have been no formal follow up procedures of the effectiveness of study programme revisions done in the past. Revisions have been developed and applied without understanding their clear output.

Recommendations for improvement

1. It is warmly recommended to Faculty to take into consideration outputs of the external quality assessment procedures. Recommendations can be a significant improvement, especially for QA sector at Faculty.
2. The procedure for revising study programme should be followed up to have a realistic insight as to its success and effectiveness.
3. Involving external stakeholders and experts from industry in the study programme planning and revision process can benefit the program quality and relevance.

Quality grade

Unsatisfactory level of quality

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

Analysis

Information from students suggested an imbalance between the workload and ECTS credits between courses within the same academic year. Although a method exists to relate ECTS credits to the workload by using the student survey, no changes have been formally done in the last three academic years.

Recommendations for improvement

1. It is highly recommended to establish a procedure for recognition, assessment and implementation of ECTS and workload balance assurance at study programmes. Feedback from student surveys can be used, but with a clear procedure for ECTS credits change when needed (to be considered with actions to raise student participation of surveys).

Quality grade

Unsatisfactory level of quality

2.6. Student practice is an integral part of study programmes (where applicable).

Analysis

From the students' point of view, the study programmes suffer from a lack of student practice. Since panel members had the opportunity to contact a number of student groups to discuss this issue, all of whom expressed the same opinion, it seems to be a general problem.

The Faculty tries to implement practical components to their teaching (via student project development, working with academic versions of software, complementing lectures with laboratory experiments). There was ongoing demand that the Faculty offer formal participation in practical work. However, some students expressed dissatisfaction that they had felt their presence on site was considered an inconvenience by their site advisors.

Besides this, students are able to undertake practice based on the model arising from the 2015 HKO project. Although this model of practice is paid by the Faculty, the Vice dean for Business Affairs emphasized recently reduced interest from the students.

Stakeholders and Alumni are overall positive and eager to take a part on a Teaching basis (significant amount of contracts signed) model, which will potentially enable a sustainable student practice model for Faculty students. However, companies emphasized difficulties in finding suitable resources for the students undertaking practice in their companies (office space, computers, software, etc.).

Recommendations for improvement

1. Faculty should make additional efforts to establish a continuous and sustainable student practice model to offer different types of student practice to students (project design, project management, site work) depending on student preferences at graduate level.
2. For the students at undergraduate level, a model of appropriate and suitable demanding student practice should be well analysed before implementation, especially at the professional undergraduate study programme.
3. Alumni and civil engineering companies within the local area can be a good source for collaboration with the Faculty. For example, laboratory facilities and consultancy can be offered to the companies which take a part in student practice model.

Quality grade

Minimum level of quality

III. Teaching process and student support

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

Analysis

All of the relevant information is available on a Faculty website. The Application Criteria are made by the Senate of the University and are consistently applied. If the quota is not fulfilled, the deadline can be extended. In general, there has not been sufficient interest among students in recent years, so the plan is to reduce the number of students on Undergraduate University Study from 110 to 80.

For enrolment at Undergraduate University Study, the success achieved in high school and on the state matura (Mathematics 40%), and the best result of one elective course (Physics, Chemistry or Computer Science-20%) are evaluated. For Undergraduate Professional Study elective course is not mandatory, but it can contribute to the total grade score, if the student has passed. For students who have received certain awards direct enrolment is granted.

Selection of candidates from other faculties, with appropriate prior knowledge, can continue their studies at the Faculty. The transfer is approved by the Dean. The students, by their individual requests, apply for recognition of previous courses and passed exams, then the teacher, based on the documents, recognizes passed exam in whole, in part or not at all. Also, there is no formal procedure for feedback from transferred students, only verbal conversation.

Recommendations for improvement

1. Promote the Faculty in more interactive ways to get more high level educated students during the enrolment procedure.
2. Feedback from transferred students about the procedures should be a formal procedure.

Quality grade

High level of quality

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

Analysis

The data on student success is collected and analysed at the end of each semester. Over recent years, the duration of the Undergraduate University Study was 3-4 years and on Undergraduate Professional Study was 3,5-4,5 years. About 20% of the Undergraduate University Study first-year students met their obligations on time. For Undergraduate Professional Study it is about 10%, which indicates that the measures taken have not been sufficiently efficient.

The enrolment quota has been increased for the only undergraduate professional study programme. Many of the students at the undergraduate professional study programme are studying and working at the same time. No drastic change has been noticed in the study completion rates. The percentage of graduate students who finish the study in the foreseen period is 50-70%.

To improve student pass rates in the first year of undergraduate studies, every full time student is assigned a teacher-counsellor. This is a positive development, but it has only just been introduced, so its effectiveness has yet to be determined. Students also get their support through student-mentor system. Since the 2007/2008 academic year a free introductory course in Mathematics, Constructive Geometry and Mechanics has been organized for future students.

Every year the best students are awarded with Dean's recognition and the best student of the Faculty is proposed for the Rector's Award for excellence.

Recommendations for improvement

1. It is warmly recommended to define and implement constant monitoring procedures of student success at Faculty level. This will potentially enable insight to a "cause and consequence" of study programme accomplishment rates, and enable the Faculty Management Board to decide on measure of solution.
2. Reduce requirements for students on Undergraduate Study, reassign ECTS credits.
3. Variability in workloads and expectations between modules at the same Study programme is a potential problem as noticed by students during the panel visit. This seems to be easily implemented by defining formal criteria at the Study programme level which will keep workload and expectations in balance.
4. It is very strongly recommended that the Faculty introduce QA procedures regarding the setting of assessment, double marking and the setting up of an exam board to discuss performance on courses before final marks are released to students.

Quality grade

Unsatisfactory level of quality

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

Analysis

There are different types of teaching methods used within the Faculty (lectures, auditory, constructive and laboratory exercises, seminars, field work) which encourages interactive learning at both undergraduate and graduate study programmes. Teachers independently choose teaching methods in accordance with student feedback. Some elective lectures are given by guest teachers which helps students to get a more realistic insight into the connection of theory and practice. To improve the quality of the teaching process Faculty pays for fieldwork if necessary (transportation of students by bus). Audio-visual equipment is set up in each lecture hall and laboratories as well. Three computer classrooms with 70 computers (licensed programs) are open for active teaching, mentoring and independent student work.

Research-based learning is recognised dominantly at graduation level studies and it is related to study program level learning outcomes. This leads to an increase in the number of publications with students as co-authors.

Some courses are using e-learning systems, such as MERLIN and Google Classroom. Repositories at Faculty website are available to all students. There is a need for IT staff, due to the transfer of IT specialists to the joint office at Campus (SIC) as a consequence of the integration process.

Communication between teachers and students is managed through consultations. Consultation hours are posted on the Faculty's web site, but most staff are available even outside the consultation hours. Students can also reach them via official email, or Merlin and Google Classroom systems. Students expressed a high level of satisfaction with their access to staff.

Student autonomy and responsibility is being implemented by student representatives. They regularly submit reports on the work of the Student Assembly and students in general, which is discussed at the sessions of the Faculty Council. Student Assembly can contribute to creating timetables for partial exams and exams.

Recommendations for improvement

1. More research-based learning on undergraduate study programme, more time in laboratory allowing students to ensure skills related to practical lab work.
2. Continue with the development of lecturers' motivation and their commitment to students, maintaining the excellent levels of student satisfaction with access to staff.

Quality grade

Satisfactory level of quality

3.4. The higher education institution ensures adequate student support.

Analysis

Each student of the first year of undergraduate studies has a senior mentor student (student-to-student mentor). Every full-time undergraduate first-year student is assigned a teacher-counsellor. These counsellors introduce students to basic information, their opportunities and track their work and progress. Student-to-student tutors are helping first-year students in courses with a lower pass rate and the ones with more complex programme tasks.

Professional study teaching is implemented separately for full-time and part-time students. To allow part-time students to attend classes, lectures are given in the afternoon after end of the industry working time. Office hours of the office for Student Affairs is aligned for full-time and part-time students separately. Based on survey responses the Office is recognised as the best graded one at the University level.

The University of Rijeka provides the Psychological Counselling Centre, the Office for Disabled Students and the Office for Career Planning. Additional improvements of the Library facilities have not been significantly made since the previous re-accreditation cycle, although the need for this was highlighted. Administrative staff are approachable to all students, but there is a lack of technical and professional staff.

Recommendations for improvement

1. It is warmly recommended to develop a professional support office at the Faculty which will guide students through the study programmes and offer advice when needed.
2. Faculty Library strategic development is suggested to be planned and implemented in detail. The level of satisfaction with the Library facilities should be in line with levels of student satisfaction with the Student office.

Quality grade

Satisfactory level of quality

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

Analysis

While the Faculty has information on students from vulnerable and under-represented groups, no formal institutional support is organized for these students. Support is offered only if the students request it from the Dean and those issues are solved on an individual basis.

Health care is provided to all students studying at the University who are not from Rijeka. For students with physical disabilities there is an elevator available, plus adequate toilets and the staircase is marked for visually-impaired students. Additional time is provided in exams for students from vulnerable groups.

In accordance with the University regulation policies the scholarship fee for students with at least 60% of physical disabilities is free of charge for a period twice the length of the regular study duration.

Recommendations for improvement

1. It is recommended that the Faculty establish procedures and services for under-represented groups of students.
2. A follow-up system, recording their satisfaction and success with the support and study programme is warmly recommended.
3. Develop more concrete measures to support this group of students (following the example of reduced scholarship fees). For example, additional support classes may be offered to targeted groups based on evidence of progression statistics.

Quality grade

Minimum level of quality

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

Analysis

All of the information about international experience can be found on the Faculty website and the website of the University of Rijeka. Students have the opportunity to go to the 23 international institutions with which Faculty has bilateral agreements and cooperates through joint scientific research projects.

Foreign language lessons are provided by the Erasmus+ student mobility agency and CEEPUS national office. All relevant information about mobility options is provided by local coordinators. Recognition of ECTS credits is carried out by Vice dean for Education and Student Affairs and five lecturers from different departments within the Faculty. The final decision is made by the Dean and it is stored in the archives of the Faculty.

Systematic surveys of student satisfaction with the University support are not formally conducted. Instead, there is an interview following their return to the home Faculty. Students gain competencies required for the employment in an international environment, e.g. language training. The opportunity for PhD students to spend several months off from home institution is recognised as an exemplary policy as defined within the University ordinance.

Recommendations for improvement

1. Involve the institution itself in increasing the number of applications for European scientific research projects.
2. Try to be more proactive with students, with presentations of eligible universities for student exchange through presentations.

Quality grade

Satisfactory level of quality

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

Analysis

The Faculty web site is developed in both Croatian and English. Additional effort by the Faculty is shown through the possibility of giving lectures in foreign languages. At undergraduate level there are 58 courses that can be taught in a foreign language. All PhD programme courses can be delivered in English. 57 courses can be taught in English, 11 courses in German, 10 in both English and German and one in Slovenian.

Foreign students get a temporary AAI @ EduHr user account to access the courses they attend while enrolled. E-learning systems (The Merlin Learning System and Google Classroom) are available in different languages and are used as a platform for lecture materials and as a means of communication with lecturers.

Foreign students do not have to attend formal lectures. Instead, lectures are given individually by lecturers. Feedback on foreign student satisfaction is done informally, by individual interview.

Foreign students have the opportunity to attend Croatian language classes (4.0 ECTS credits) at the Faculty of Humanities and Social Studies in Rijeka. Unfortunately, foreign students cannot spend an entire study cycle at the Faculty.

Recommendations for improvement

1. Enable foreign students to spend an entire study cycle at the higher education institution. Student surveys should be available to foreign students as well.
2. Develop and publish a catalogue of courses which can be given in English at both the undergraduate and graduate level.
3. Formalise procedures for foreign students enrolled at the Faculty.

Quality grade

Minimum level of quality

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

Analysis

Ordinances regarding the grading procedure are defined and published at the Faculty level. Based on the student population response, it is well established and used during the examination and grading procedures, except for isolated cases.

The University regulations only allow students to appeal on marks obtained in the final exam. However, following the recommendations of the 2012 accreditation visit the Faculty introduced more coursework, such that the final exam may represent only 30% of the total for some courses (usually mandatory courses). When students' right of appeal is restricted, and evaluation and assessment of student achievement relies purely on teacher judgement, it opens the Faculty to accusations of bias in the grading and examination process.

The student grading process at the Faculty is mostly blind, but some students expressed concern that this depends on the teacher being willing to conduct a blind grading process.

The Faculty enables uses various assessment procedures like written exams, seminars, design projects, mid-term exams, oral presentations, etc. The examination procedure is defined within the study programme and introduced and communicated to students as the semester starts.

Recommendations for improvement

1. Double marking should be introduced to Faculty, at least starting with Masters theses to assess effectiveness, and eventually be spread to mandatory courses.

2. External examiners should be encouraged to attend public presentations as well as examination procedures at some courses which are closely related to their area of expertise.
3. Internal procedures of the grading procedure objectivity assessment can be introduced easily by inviting teaching staff from other departments to attend the examination procedure.

Quality grade

Unsatisfactory level of quality

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

Analysis

The Faculty issues appropriate diploma and diploma supplements. Content of the diploma supplement is in accordance with valid regulations at the national level (Ordinance of the Content of Diplomas and Diploma Supplements). The diploma supplement can be issued in both Croatian and English on demand.

Recommendations for improvement

1. Continue issuing diploma and diploma supplements in accordance with the relevant national and EU documentation.

Quality grade

High level of quality

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

Analysis

The Faculty did not show a clear strategy for determining study programme enrolment quotas. During the analysis period quotas were updated several times. Quotas for professional undergraduate studies were increased while the drop-out rate, in particular for this study programme, increased. The increased enrolment quotas in undergraduate university studies led to a reduction in entry qualifications and then in progression rates (visible through the percentage of students who graduate from the study programme within three academic years). It was stated by the Faculty Management board that enrolment quotas will be reduced from the next academic year. This is in conflict with the Croatian Employment Service recommendations and real demands for graduate students in the market.

The panel did not see considerable effort by the Faculty in introducing graduating students to the industry representatives. Both students and alumni, as well as stakeholders and industry representatives, mentioned the lack of opportunity to get more information on potential pre-graduation collaboration.

For career planning, students are mostly supposed to do this themselves without formal evidence of Faculty support (until the last 6 months of study). Contacts with ex-students are mainly done on an individual basis when there is obvious necessity for collaboration on some specific projects.

Due the positive economic situation, a high level of employability of graduates is evidenced. However, the Faculty does not have appropriate formal procedures to follow up student employability, which could become of significant importance if the economic situation within the region changes.

Recommendations for improvement

1. It is strongly recommended that a career day be organised once or twice a year with the scope of enabling interaction between students who are about to graduate and industry representatives or civil engineering human resources managers.
2. Quota planning mechanisms should be based on a systematic, long term analysis process aligned with both national and regional level recommendations.
3. Alumni should be used more broadly, since they showed a strong interest in general support to the Faculty.
4. Student employment follow up system is recommended to be set up.

Quality grade

Minimum level of quality

IV. Teaching and institutional capacities

4.1. The higher education institution ensures adequate teaching capacities.

Analysis

According to the data from MOZVAG there is a small deficiency in teaching staff numbers appointed to scientific-teaching positions at the undergraduate university study level of civil engineering (0,48 while 0,50 is required). Other study programmes at the Faculty

are satisfactorily resourced. From the Self-Evaluation Report the average teacher-student ratio (i.e. total number of full-time teachers vs total number of enrolled students) is about 1:19 over the last three academic years, which is less than maximum allowed (1:30) and so beneficial for effective work with the students. According to the Analytical Supplement to the Self-Evaluation Report, Table 4.3, the qualifications of the teachers are appropriate for the delivery of the study programmes, and for achieving the defined learning outcomes. However, the workload is not uniformly distributed and some teachers are heavily overloaded (in one particular case double the standardized teaching hours), which is not beneficial to the staff or to the Faculty. At the meeting with the teachers they agreed that the workload distribution was not ideal but that some extremes are temporary consequences of staff on leave or mobility. There is an Ordinance at the Faculty that provides financial compensation for overloaded teachers.

Recommendations for improvement

1. The number of the full-time teachers on the university undergraduate study programme of civil engineering should be increased in order to achieve legal requirement.
2. Develop a workload model that allows the management to understand demands for teaching and research and to support the development of a balanced portfolio of work for all staffing.

Quality grade

Satisfactory level of quality.

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

Analysis

From the Self-Evaluation Report it is clear that there are plans for recruitment and promotion of teaching staff in terms of needs, but they are not unified and there is no evidence what happens after departments submit their needs for teaching staff. The procedure for recruiting and promoting teachers is aligned with the state legislation rules. However, the criteria for selecting new teacher assistants are not unified nor defined at the institutional level. That means that the working practices differ among various departments. This should not be the case because of the needs for clarity and transparency of all applied procedures. That conclusion was also reached at the meeting with the teachers. Additional criteria for the promotion of the teaching staff other than minimum requirements requested by the legislative rules are not provided. Teachers pointed out that the best teacher is annually recognized at the University level but they do not have that practice at the Faculty. The Dean said that so far they did not have any

issues with the promotion of the staff regarding the free employment coefficients but that they will have to face it very soon.

Recommendations for improvement

1. Clear and transparent procedure for the recruitment of the new teaching staff as well as promotion should be established. The key and additional criteria should be listed along with the score range for each criterion.
2. As noted above, develop a workload model that brings together teaching and research strategic plans and ensure appropriate decisions can be made.

Quality grade

Minimum level of quality.

4.3. The higher education institution provides support to teachers in their professional development.

Analysis

According to the Self-Evaluation Report, as well as discussion at the meeting with the teachers, both the University and the Faculty provide satisfactory opportunities for professional development and improving of teaching competences.

They are using various platforms for e-learning as additional aids for the students as well as different teaching methods. The overall impression from the meeting is very positive, teachers are motivated for their job and willing to improve their skills. However, there are no formal plans, nor monitoring systems of gained skills.

The quality of teaching is evaluated through students' evaluations on the university level. Due to the growing teaching obligations some teachers face difficulties in the realization of mobility, so in most cases that is solved at the solidarity base.

The need for better support and motivation for scientific activities was emphasized at the meeting with teachers and heads of the research projects. As noted elsewhere, access to online scientific databases and journal papers is a serious problem for keeping in touch with the scientific achievements. Staff are annually assigned a small amount of money that they can spend on any form of research activity but it can only cover basic needs.

The procedure for expert (professional) activities is well defined and teachers involved in that kind of activities are satisfied with the Faculty support, as well as with the financial structure. However, there are a few employees who are members of the Croatian Chamber of Civil Engineers. This is an important achievement of the Faculty and one that

can improve contacts with the industrial sector. That is especially important from the aspect of new laboratory equipment at the Faculty, which offers great opportunities for collaboration.

Recommendations for improvement

1. It is recommended to establish an appropriate formal procedure for gaining and monitoring of the teachers' professional skills, which will assure involvement of the majority of teachers in the planned activities. The teachers should be more encouraged and stimulated for submitting project proposals as well as for ongoing mobility.
2. Staff should be encouraged to become Chartered Civil Engineers, which would also assist with connections with the industrial sector.

Quality grade

Satisfactory level of quality

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

Analysis

The Faculty operates in the new building, which provides a high quality environment for all activities – scientific research, teaching, laboratory testing and professional (expert) work. The building has a total of 6.799,76 m² of net usable space, which equates to 5.4 m² of total area per student. That is far bigger than the minimum request (1,25 m² per student) so the students and teachers are provided with excellent working surroundings. The students confirmed at the meeting that they are very satisfied with the classrooms as well as the provision of IT equipment and software. Each laboratory is equipped with a dedicated technician, which assures access and support for scientific, teaching and professional activities.

Recommendations for improvement

None.

Quality grade

High level of quality

4.5. The library and library equipment, including the access to additional resources, ensure the availability of literature and other resources necessary for a high-quality study, research and teaching.

Analysis

In contrast with the other parts of the building, the library is not of appropriate size nor well equipped with the books and journals. There are only 30 seats in the reading room (60m²). There are no electronic journals with full texts provided by the institution, but there are some printed journals. Only basic literature (textbooks) is ensured for undergraduate and graduate studies. The office hours of the library are appropriate so all students (including part-time) have access at various times during the day. The online library catalogue is available at the University level. There is a procedure for ordering new books, and the library staff organise workshops for employees regarding journal indexing, citations, etc.

Recommendations for improvement

1. It is strongly recommended that the library space is expanded or to even move the library to another part of the building.
2. With the current resources the library cannot provide a satisfactory service aligned with research needs, particularly for online journal services.

Quality grade

Minimum level of quality

4.6. The higher education institution rationally manages its financial resources.

Analysis

The Faculty provided financial plans of income and expenditure for a period of the last five years. From the plans it is visible that the Faculty manages its financial resources transparently. The financial reports are submitted to the Faculty Council annually. Additional sources of funding are coming from scientific projects (e.g. EU projects and project funds by the Croatian Science Foundation), expert (professional) work and tuition fees.

According to the Self-evaluation report a certain amount of money is allocated for improving the study process (buying classroom equipment), maintenance of laboratory equipment, literature, computer programs, financing of field trips, etc. At the meetings with the teachers and the researches a need for more efficient financing of scientific research as well as establishing of appropriate rewarding system for successful scientific results was brought up.

Recommendations for improvement

1. It is recommended that there is a more thorough analysis of financial resources in order to optimize and prioritize most relevant activities of the Faculty that have to be additionally stimulated.
2. From the discussions with the staff there is a wish to improve scientific research and to strengthen relationships with the industrial sector. For example, an idea of providing an internal fund for preliminary scientific projects that may help researchers, especially at the beginning of their career, to prepare project proposals in a more efficient way which, in turn, will increase chances for the acceptance of final propositions.

Quality grade

Satisfactory level of quality.

V. Scientific/artistic activity

5.1. Teachers and associates employed at the higher education institution are committed to the achievement of high quality and quantity of scientific research.

Analysis

Teachers and associates are committed to high quality research as evidenced by many staff having published Q1 journal papers. However, a closer examination of the data provided in Table 4.4 does not show which staff are publishing in Q1 journals in the previous 5-year review period. The data only give the total number. The record keeping of publication indices, citation impact, h-index, etc. is otherwise satisfactory.

There is no statement about the number of papers that is considered appropriate and it is not clear whether the staff are aware of this. Table 4.4 shows that different staff members publish very different numbers of papers over the 5-year review period, varying from 44 to none. As an average figure the metric of 0.6 papers/staff/5 years is very low. Furthermore, the h-index of staff and the number of citations of papers are lower than would be expected. This needs to be addressed.

There is high quality evidence that a good number of PhD theses have been completed. However, the range of research topics is mainly confined to the Structures/Environmental Fluid/Geotechnics areas and dominated by 4 mentors (15 out of 21 theses). This needs to be expanded.

There is evidence that conferences are promoted and organised in the Faculty. There is also evidence that staff attend and present at suitable international conferences.

Recommendations for improvement:

1. Provide a further breakdown of recorded data to identify Q1 journal paper numbers by individuals.
2. It is strongly recommended to develop a strategy for increasing not just the number of papers but their impact and hence citation (it is acknowledged that the situation is improving).
3. It is strongly recommended that the Vice Dean for Research is provided with sufficient management information/data to be able to support staff to publish.
4. It is strongly recommended that the subject areas of doctoral candidates are broadened to encompass the full range of research areas of the Faculty.
5. Consider whether publications should be made open access.

Quality grade:

Minimum level of quality

5.2. The higher education institution provides evidence for the social relevance of its scientific / artistic / professional research and transfer of knowledge.

Analysis

There is good evidence that the projects are taking place in partnership with industry, which have been listed in the Analytic Appendices provided to the Review team. There are lists of publications arising from these projects together with lists of grants and other research support.

The Review Team were not convinced that research projects data accurately recorded their influence and impact on the socio-economic needs for Croatian society. However, it was noted that the Faculty plays a strong role in significant public activities, such as the annual 'River of Technology' and this is excellent.

Although there are no patents or spin-out companies at the time of review it is noted that the University does provide support for these processes if they arise.

There is evidence that the teaching staff are co-opted into scientific projects so that they can undertake research leading to the publication of papers and there is evidence that this is leading to an increase in the number of papers published.

Recommendations for improvement:

1. It is recommended that project leaders define the socio-economic impact of research.

2. Formulate a strategy to increase the engagement with appropriate public media both locally, nationally and internationally.

Quality grade:

Minimum level of quality

5.3. Scientific/artistic and professional achievements of the higher education institution are recognized in the regional, national and international context.

Analysis

There is satisfactory evidence that the staff have been given national and international awards and these are reported in the self-evaluation report. There are a large number of professional and scientific projects both locally, nationally and internationally funded and details of these have been provided. As noted above, the staff have been invited to present at conferences and these have been listed. A number of staff contribute to editorial boards and some are Editors and Chief Editors of journals.

Oral evidence was provided that the Faculty and Departmental research strategies were developed in response to the University's research strategy and it was reported that this was in response to the EU's research focus. Staff reported that they had inputted into the development of the research strategy.

The availability of funds for attending international conferences was good but approval was via the Dean and this would be better undertaken by the Vice Dean for Research.

Recommendations for improvement:

1. Create an Industrial Advisory Panel who can contribute to the development of research strategy.
2. Invite internationally-known academics to present cutting-edge research.
3. Invite the above to input into research strategic planning.
4. It is recommended that the Vice Dean for Research has financial capacity to approve conference travel using a 'light touch' justification given in the application (this is recommended to reduce that risk that only a small number of research areas are funded).

Quality grade:

Satisfactory level of quality

5.4. The scientific / artistic activity of the higher education institution is both sustainable and developmental.

Analysis

There was satisfactory evidence that the Faculty Research Strategy aligns with the University Strategy, although the reviewers were not clear that this was universally known by all staff. It was also clear that research activities are established in line with this strategy. However, at present there is limited external input into the research planning process. It was explained that industry was reluctant to commit time to such a process and this can be a common problem, however, the reviewers felt this was an important input and various ways of persuading industry contributions were discussed with the Vice Dean for Research.

As noted, the research infrastructure is excellent and it should also be recorded that there was an excellent provision of high performance computing facilities. Discussions with the Vice Dean for Research noted that there was a need to develop a strategy for the future maintenance and renewal of equipment.

There was satisfactory evidence that staff are recognised and rewarded for the scientific achievements.

The Vice Dean for Research reported that he meets monthly with heads of research with a 'fluid' agenda but an aim to continuously improve scientific activities. However, the reviewers were concerned that there was insufficient management data available for him to assess whether individual staff activities were adequate.

Recommendations for improvement:

1. Create a strategy for financing equipment future maintenance and renewal.
2. Form an Industrial Advisory Panel to input into strategic research planning.
3. It is strongly recommended that sufficient management data is collected by which research activities can be planned, measured and supported.

Quality grade:

Minimum level of quality

5.5. Scientific/artistic and professional activities and achievements of the higher education institution improve the teaching process.

Analysis

The Faculty has invested in new equipment in all areas of laboratories. The equipment and laboratory space is internationally standard and each laboratory has a dedicated technician and staff member to supervise the area and activities. Discussion with the Laboratory Head demonstrated a high level of management expertise and a keen desire to utilise the equipment for the greater good of the Faculty and wider communities.

Graduate students carry out experiments at both basic and advanced levels of work. The panel visited all laboratory areas and it was noted that the quality and provision was uniformly excellent.

The panel also visited the Faculty Library but an area of concern was the provision of key journals. It was reported that budget cuts had led to subscriptions being reduced. It was reported by both staff and students that this was problematic and required them to use their personal external network to gain access to papers. It is noted that individual researchers have access to small amounts of financial support that can be used for the purchase of books, individual papers, etc.

An area of concern for the panel members was that laboratory exercises were confined mainly to graduate courses and were limited for undergraduate students. Discussion with undergraduate students demonstrated that they would like to have more practical work. This was echoed by the discussions with the industry representatives who reported that they would like students to have extensive practical experience, e.g. making small structures and loading them to failure and recording and reporting structural behaviour and performance.

There was satisfactory evidence that appropriate lists of publications, scientific activities are recorded by the Faculty.

There was satisfactory evidence that students are encouraged and supported to write papers in high-quality journals.

There was satisfactory evidence that graduate and postgraduate students are involved with scientific work but as noted above this does not extend to undergraduate students.

Recommendations for improvement

1. It is strongly recommended that the provision of books, databases and technical support documentation in the Faculty Library are reviewed and that the availability of key journals is enhanced. This provision should be aligned with the Research Strategy and reflect the aim to publish in Q1 journals.
2. Centrally record the provision of 'routine' and 'specialist' software for research and discuss with both academic and industry advisors that this is appropriate for research at both graduate and post-graduate level. The software list should be recorded on the Faculty web-site.
3. Provide space of 'research posters' to celebrate and inform students and visitors of the research and testing work being undertaken in the Faculty. Ensure that these are changed annually.
4. Enhance the 'Research' web pages to reflect the capability of the Faculty and explain how industry can access laboratories through a single point of contact. Each research project should have dedicated web pages summarising the progress of work for both the general public and specialists. Each project web-site should explain how it is contributing to the socio-economic life of Croatia.
5. Given the importance of the project work, it is recommended that a procedure is established that communicates this with newspapers and similar media (it is recognised that this does occur but only due to Mentor/Research Leader individual contacts).
6. It is recommended that an appropriate relationship is strengthened with the University External Relations office to enable project outcomes to be reported internationally (an example is the work on soil erosion after a fire and the California wildfire disaster).

Quality grade

Satisfactory level of quality

APPENDICES

1. Quality assessment summary - tables

2. Site visit protocol

<i>Quality grade by assessment area</i>				
<i>Assessment area</i>	Unsatisfactory level of quality	Minimum level of quality	Satisfactory level of quality	High level of quality
<i>I. Internal quality assurance and the social role of the higher education institution</i>		X		
<i>II. Study programmes</i>		X		
<i>III. Teaching process and student support</i>			X	
<i>IV. Teaching and institutional capacities</i>			X	
<i>V. Scientific/artistic activity</i>		X		

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

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

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

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

<i>Quality grade by standard</i>				
<i>V. Scientific/artistic activity</i>	<i>Unsatisfactory level of quality</i>	<i>Minimum level of quality</i>	<i>Satisfactory level of quality</i>	<i>High level of quality</i>
5.1. Teachers and associates employed at the higher education institution are committed to the achievement of high quality and quantity of scientific research.		X		
5.2. The higher education institution provides evidence for the social relevance of its scientific / artistic / professional research and transfer of knowledge.		X		
5.3. Scientific/artistic and professional achievements of the higher education institution are recognized in the regional, national and international context.			X	
5.4. The scientific / artistic activity of the higher education institution is both sustainable and developmental.		X		
5.5. Scientific/artistic and professional activities and achievements of the higher education institution improve the teaching process.			X	

PROTOKOL POSJETA

Utorak, 4. prosinca 2018

Mjesto događanja:

Radmile Matejčić 3, 51000, Rijeka

VISIT PROTOCOL

Tuesday, 4th December 2018

Venue:

Radmile Matejčić 3, 51000, Rijeka

	Utorak, 4. prosinca 2018.	Tuesday, 4 th December 2018
9:00 – 10:00	Sastanak s dekanicom, prodekanima i tajnikom fakulteta (<i>bez prezentacija</i>)	Meeting with the dean, vice-deans and secretary (<i>no presentations</i>)
10:00 – 11:00	Sastanak članova Stručnog povjerenstva (<i>Analiza dokumenata</i>)	Internal meeting of the panel members (<i>Document analysis</i>)
11:00 – 11:45	Sastanak s radnom grupom koja je priredila Samoanalizu i Odborom za osiguravanje i unaprjeđivanje kvalitete	Meeting with the working group that compiled the Self-evaluation and Quality Assurance Committee
11:45 – 12:45	Sastanak sa studentima (otvoren sastanak za sve studente preddiplomskog i diplomskog studija)	Meeting with the students (open meeting for the students undergraduate and graduate programs)
12:45 – 14:15	<i>Radni ručak Stručnog povjerenstva</i>	<i>Working lunch</i>
14:15 – 15:00	Sastanak s Alumnima	Meeting with the Alumni
15:00 – 16:00	Sastanak s vanjskim dionicima - predstavnicima strukovnih i profesionalnih udruženja, poslovna zajednica, poslodavci, stručnjaci iz prakse, organizacijama civilnog društva, vanjski predavači	Meeting with external stakeholders - representatives of professional organisations, business sector/industry sector, professional experts, non-governmental organisations, external lecturers
16:00 - 17:00	Organizacija dodatnog sastanka o otvorenim pitanjima, prema potrebi	Organisation of additional meeting on open questions, if needed
17:00 (17:30) – 20:00	Sastanak Stručnog povjerenstva – refleksija o viđenom i priprema za idući dan posjeta, pisanje nacrtu završnog izvješća	Joint meeting of the expert panel members – reflection on the day and preparation for the second day of the site visit, drafting the final report

	Srijeda, 5. prosinca 2018.	Wednesday, 5th December 2018
9:00 – 10:15	<i>Sastanak članova Stručnog povjerenstva (Analiza dokumenata)</i>	<i>Internal meeting of the panel members (Document analysis)</i>
10:15– 11:00	<i>Sastanak s prodekanicom za nastavu i studente</i>	Meeting with the vice-dean for education and student affairs
11:00 – 12:00	Sastanak s nastavnicima (u stalnom radnom odnosu, nisu na rukovodećim mjestima)	Meeting with full-time employed teachers (open meeting)
12:00 – 13:00	Sastanak s asistentima	Meeting with teaching assistants
13:00 – 14:30	<i>Radni ručak Stručnog povjerenstva</i>	<i>Working lunch</i>
14:30 – 16:00	Obilazak Fakulteta (knjižnica, laboratoriji, uredi studentskih službi, ured međunarodne suradnje, informatička služba, učionice) i prisustvovanje nastavi	Tour of the Faculty (library, laboratories, student services, international office, IT services, classrooms) and participation in teaching classes
16:00 - 16:15	<i>Interni sastanak članova Stručnog povjerenstva</i>	<i>Internal meeting of the panel members</i>
16:15 - 17:00	Organizacija dodatnog sastanka o otvorenim pitanjima, prema potrebi	Organisation of additional meeting on open questions, if needed
17:00 (17:30) – 20:00	Sastanak Stručnog povjerenstva – refleksija o viđenom i priprema za idući dan posjeta, pisanje nacrtu završnog izvješća	Joint meeting of the expert panel members – reflection on the day and preparation for the second day of the site visit, drafting the final report

	Četvrtak, 6. prosinca 2018.	Thursday, 6 th December 2018
9:00 – 10:00	<i>Sastanak članova Stručnog povjerenstva (Analiza dokumenata)</i>	<i>Internal meeting of the panel members (Document analysis)</i>
10:00 – 10:45	Sastanak s prodekanom za znanstveno-istraživački rad i međunarodnu suradnju	Meeting with vice dean for scientific and research affairs and international cooperation
10:45 – 11:30	Sastanak s voditeljima znanstvenih projekata	Meeting with the heads of research projects
11:30 – 11:45	<i>Sastanak članova Stručnog povjerenstva</i>	<i>Internal meeting of the panel members</i>
11:45 – 12:30	Organizacija dodatnog sastanka o otvorenim pitanjima, prema potrebi	Organisation of additional meeting on open questions, if needed
12:30 – 13:30	<i>Radni ručak Stručnog povjerenstva</i>	<i>Working lunch</i>
13:30 – 14:00	<i>Interni sastanak članova Stručnog povjerenstva</i>	<i>Internal meeting of the panel members</i>
14:00 – 14:15	Završni sastanak s dekanom, prodekanima i tajnikom fakulteta	Exit meeting with the dean, vice-deans and secretary
17:00 – 20:00	Sastanak Stručnog povjerenstva – pisanje nacrtu završnog izvješća i rad na dokumentu Standardi za vrednovanje kvalitete	Joint meeting of the expert panel members - Drafting the final report and working on the document Standards for the evaluation of quality

SUMMARY

The panel was very impressed by the quality of the students and the dedication of the teaching staff to student education. This was immediately clear during discussions with the staff and was viewed favourably by every single student met by the team. The Faculty building is excellent and provides a good learning environment. The laboratories are fitted with excellent facilities and have similarly excellent technical support. There is a good mix of staff covering all of the necessary expertise, together with a good mix of experienced and new staff.

The Faculty has a positive approach to internationalisation, providing for undergraduate and graduate students, and for staff. This is reflected in the number of students undertaking international placements, academic staff visits, and particularly in the opportunity for all PhD students to spend several months off from home institution. This is an excellent initiative and it would be great to see this best practice adopted by other institutions.

Thus, the Faculty has a great potential. However, there are some aspects which could be improved, if this potential is to be fully achieved.

There is a need for more rigorous quality control procedures during student assessment. This has potentially led to poor student progression. It is recommended that the Faculty introduce procedures to ensure fair assessment and an exam board to monitor student performance before marks are released to students. This may allow a more consistent student experience.

The full potential could also be achieved by improving engagement with external stakeholders. A formalised industrial advisory board is recommended, with regular meetings and a clear remit. This will also help with staff developing their research agendas, which is another area where there is clear latent strength.

Finally, credit should be given to the Faculty management for the way in which the visit was conducted. The entire process ran very smoothly and the effort which the staff put in to organising the visit is recognised.