



**Report
of the Expert Panel
on the REACCREDITATION
of the University Postgraduate (Doctoral) Programme
Maritime Affairs**

Faculty of Maritime Studies University of Rijeka

June 1st, 2016

July, 2016

CONTENTS

<i>INTRODUCTION</i>	<i>3</i>
<i>SHORT DESCRIPTION OF THE STUDY PROGRAMME</i>	<i>6</i>
<i>RECOMMENDATION BY THE EXPERT PANEL TO THE ASHE'S ACCREDITATION COUNCIL</i>	<i>6</i>
<i>RECOMMENDATIONS FOR THE IMPROVEMENT OF THE STUDY PROGRAMME.....</i>	<i>7</i>
<i>ADVANTAGES OF THE STUDY PROGRAMME</i>	<i>7</i>
<i>DISADVANTAGES OF THE STUDY PROGRAMME</i>	<i>7</i>
<i>EXAMPLES OF GOOD PRACTICE</i>	<i>7</i>
<i>COMPLIANCE WITH THE PRESCRIBED CONDITIONS FOR THE DELIVERY OF A STUDY PROGRAMME.....</i>	<i>9</i>
<i>QUALITY ASSESSMENT</i>	<i>13</i>

INTRODUCTION

The Expert Panel appointed by the Agency for Science and Higher Education (ASHE) created this Report on the Re-accreditation of the University Postgraduate (Doctoral) Programme Maritime Affairs on the basis of the Self-Evaluation Report of the Programme, other documentation submitted and a visit to the Faculty of Maritime Studies University of Rijeka.

The Agency for Science and Higher Education (ASHE), a public body listed in EQAR (European Quality Assurance Register for Higher Education) and a full member of ENQA (European Association for Quality Assurance in Higher Education), re-accredits higher education institutions (hereinafter: HEIs) and their study programmes in line with the Act on Quality Assurance in Science and Higher Education (Official Gazette 45/09) and the Ordinance on the Content of a Licence and Conditions for Issuing a Licence for Performing Higher Education Activity, Carrying out a Study Programme and Re-Accreditation of Higher Education Institutions (OG 24/10). In this procedure parts of activities of higher education institutions and university postgraduate study programmes are re-accredited.

Expert Panel is appointed by the Agency's Accreditation Council, an independent expert body, to carry out independent evaluation of post-graduate university study programmes.

The Report contains the following elements:

- Short description of the study programme,
- The recommendation of the Expert Panel to the Agency's Accreditation Council,
- Recommendations for institutional improvement and measures to be implemented in the following period (and checked within a follow-up procedure),
- A brief analysis of the institutional advantages and disadvantages,
- A list of good practices found at the institution,
- Conclusions on compliance with the prescribed conditions of delivery of a study programme,
- Conclusions on compliance with the criteria for quality assessment.

Members of the Expert Panel:

- President of the Expert Panel, Dr. Gordon Dalton, University College Cork, Ireland,
- Professor Ove T Gudmestad, University of Stavanger, Kingdom of Norway,
- Professor Hongming Xu, University of Birmingham, United Kingdom of Great Britain and Northern Ireland
- Professor Vadim Silberschmidt, Loughborough University, United Kingdom of Great Britain and Northern Ireland
- Professor Sergey V. Utyuzhnikov, University of Manchester, United Kingdom of Great Britain and Northern Ireland
- Stjepan Sučić, representative of business sector, Končar – inženjering za energetiku i transport, d.d., Republic of Croatia,

- Professor Kjell Ivar Øvergård, University College of Southeast Norway, Kingdom of Norway,
- Professor Aleksander Ślaskowski, Faculty of Transport, Silesian University of Technology, Republic of Poland,
- Professor Stojan Petelin, Faculty of Maritime Studies and Transport, University of Ljubljana, Republic of Slovenia,
- Hilde Sandhåland, doctoral candidate, Stord/Haugesund University College, Kingdom of Norway,
- Ana Carolina dos Santos Paulino, doctoral candidate, University of Strasbourg, French Republic,
- Maximilian Lesellier, doctoral candidate, Robotique et de Microélectronique de Montpellier (LIRMM), French Republic,
- Massimiliano Ferrucci, doctoral candidate, KU Leuven, Kingdom of Belgium.

The higher education institution was visited by the following Expert Panel members:

- Professor Kjell Ivar Øvergård
- Professor Aleksander Ślaskowski
- Professor Stojan Petelin
- Dr. Gordon Dalton
- Hilde Sandhåland, doctoral candidate.

In the analysis of the documentation, site visit and writing of the report the Panel was supported by:

- Iva Žabarović, coordinator, ASHE,
- Ivana Rončević, interpreter at the site visit,
- Translator of the Report, ASHE.

During the visit to the Institution the Expert Panel held meetings with the representatives of the following groups:

- Management,
- Supervisors,
- Doctoral candidates,
- Alumni,

The Expert Panel also had a tour of the library, IT rooms, the classrooms, ship bridge simulators, engine room simulators, part-task simulators (ECDIS) and radio communication simulators.

SHORT DESCRIPTION OF THE STUDY PROGRAMME

Name of the study programme contained in the licence: Maritime Affairs

Institution providing the programme: University of Rijeka

Education provider(s): Faculty of Maritime Studies in Rijeka

Place of delivery: Studentska ulica 2, Rijeka

Scientific area and field: Technical Sciences, Technology of Traffic and Transport

Learning outcomes of the study programme: HEI has no learning outcomes defined on the programme level

Number of doctoral candidates: 130

Number of teachers: 47

Number of supervisors: 14

RECOMMENDATION BY THE EXPERT PANEL TO THE ASHE'S ACCREDITATION COUNCIL

Upon the completion of the re-accreditation procedure and the examination of the materials submitted (Self-Evaluation Report, etc.), the visit to the higher education institution and interviews with HEI members in accordance with the visit protocol, the Expert Panel renders its opinion in which it recommends to the Accreditation Council of the Agency the following:

Issue a letter of recommendation for the period up to three (3) years in which period the higher education institution should make the necessary improvements. The letter of recommendation may include suspension of student enrolment for the defined period.

RECOMMENDATIONS FOR THE IMPROVEMENT OF THE STUDY PROGRAMME

1. The Faculty is advised to implement institutional supports so full-time PhD-candidates can finalise the coursework and the research part of the PhD within 4 years. It is suggested to reduce the number of courses the students must take and give more focused courses pertaining to PhD-level education. (Reduce the number of ECTS in taught classes).
2. Allow students to start their doctoral research at the start of the enrolment into the PhD-programme.
3. Supervisor/Mentor must not be part of evaluation committee.
4. Increasing the number of PhD-theses written in English to increase internationalisation and to increase number of experts who can be part of the evaluation committee.
5. Increase Erasmus+-exchange of PhD-students and of faculty staff.
6. Reduce teaching load hours for students.
7. Ensure that teacher workload is not above the maximum 350 norm hours.

ADVANTAGES OF THE STUDY PROGRAMME

1. Perform applied maritime research.
2. The PhD-programme and the faculty are well known in the maritime academic world.
3. Good equipment for applied maritime research
4. Covers a broad set of topics all relevant to the Maritime domain.
5. Good career progress and job security within faculty for PhD students, especially ministry-funded candidates.
6. Managers in Rijeka are willing to discuss challenges of programmes with plans to implement change.

DISADVANTAGES OF THE STUDY PROGRAMME

1. PhD-courses are taught in Croatian
2. Average h-index is relatively low.
3. Supervisor/Mentor is sometimes part of the evaluation committee.
4. Erasmus+-exchange must be implemented more.
5. No dedicated PhD student research labs.
6. Tendency to publish in regional journals and conferences.

EXAMPLES OF GOOD PRACTICE

1. The PhD candidates describe the access to the supervisors as good.
2. Detailed and systematic Rulebook on Postgraduate University Study “Maritime Affairs”.
3. The Faculty is active in maritime organisations and in organising conferences and workshops.
4. The Faculty has focused on publishing in international peer-reviewed maritime domain journals like ‘Journal of Navigation’.

5. The Faculty organize PhD-courses in weekends.

**COMPLIANCE WITH THE PRESCRIBED CONDITIONS FOR THE DELIVERY
OF A STUDY PROGRAMME**

Minimal legal conditions:	YES/NO notes
1. Higher education institution (HEI) is listed in the Register of Scientific Organisations in the scientific area of the programme, and has a positive reaccreditation decision on performing higher education activities and scientific activity.	YES
2. HEI delivers programmes in the two cycles leading to the doctoral programme, i.e., first two cycles in the same area and field/fields (for interdisciplinary programmes), and employs a sufficient number of teachers as defined by Article 6 of the Ordinance on the Content of a Licence and Conditions for Issuing a Licence for Performing Higher Education Activity, Carrying out a Study Programme and Re-Accreditation of Higher Education Institutions (OG 24/10).	YES
3. HEI employs a sufficient number of researchers, as defined by Article 7 of the Ordinance on Conditions for Issuing Licence for Scientific Activity, Conditions for Re-Accreditation of Scientific Organisations and Content of Licence (OG 83/2010).	YES
4. At least 50% of teaching as expressed in norm-hours is delivered by teachers employed at the HEI (full-time, elected into scientific-teaching titles).	YES
5. Student: teacher ratio at the HEI is below 30:1.	NO
6. HEI ensures that doctoral theses are public.	YES
7. HEI launches the procedure of revoking the academic title if it is determined that it has been attained contrary to the conditions stipulated for its attainment, by severe violation of the studying rules or based on a doctoral thesis (dissertation) that has proved to be a plagiarism or a forgery according to provisions of the statute or other enactments.	YES
Additional/ recommended conditions of	YES/NO

the ASHE Accreditation Council for passing a positive opinion	notes
1. HEI (or HEIs in joint programmes) has at least five teachers appointed to scientific-teaching titles in the field, or fields relevant for the programme involved in its delivery.	YES
2. In the most recent reaccreditation, HEI had the standard Scientific and Professional Activity (e.g. Artistic for those in the arts field) marked as at least "partly implemented" (3).	YES
3. The doctoral programme is aligned with the HEI's research strategy.	YES
4. The candidate : supervisor ratio at the HEI is not above 3:1.	NO All doctoral candidates 130 : active supervisors 14 Ratio: 9.28 Active doctoral candidates 85 : active supervisors 14 Ratio: 6.07
5. All supervisors meet the following conditions: a) PhD, elected into a scientific title, holds a scientific or a scientific-teaching position and/or has at least two years of postdoctoral research experience; b) active researcher in the scientific area of the programme, as evidenced by publications, participation in scientific conferences and/or projects in the past five years (table 2, Supervisors and candidates); c) confirms feasibility of the draft research plan upon admission of the candidate (or submission of the proposal); d) ensures the conditions (and funding) necessary to implement the candidate's research (in line with the draft research plan) as a research project leader, co-leader, participant, collaborator or in other ways; e) trained for the role before assuming it (through workshops, co-supervisions etc.); f) received a positive opinion of the HEI on previous supervisory work.	YES
6. All teachers meet the following conditions: a) holds a scientific or a scientific-teaching position; b) active researcher, recognized in the field relevant for the course (table 1, Teachers).	YES

<p>7. The supervisor normally does not participate in the assessment committees.</p>	<p>NO</p> <p>The SER has explained why the Supervisor is part of the Assessment committees, and the Expert Panel agrees that there is a lack of Croatian-speaking academics in the field of Maritime Affairs. However, when viewing this from a European perspective there are many academics who have Maritime Affairs or related fields as their speciality.</p> <p>The Panel finds that this problem is partly due to the fact that most PhD theses are written in Croatian – thereby excluding academics from outside former Yugoslavia.</p> <p>The Panel also finds that the reasons given by the Faculty is not sufficient to put aside the important fact that having the supervisor in a doctoral assessment committee invokes a great conflict of interest which is not acceptable in most countries in Europe.</p> <p>Recommendation: The Faculty is advised to immediately stop using the supervisor in assessment committees and to devise ways that would allow English-speaking academics to assess the PhD-theses and to be part of the assessment committees for dissertation defences.</p>
<p>8. The programme ensures that all candidates spend at least three years doing independent research (while studying, individually, within or outside courses), which includes writing the thesis, publishing, participating in international conferences, field work, attending courses relevant for research etc.</p>	<p>YES</p>
<p>9. For joint programmes and doctoral schools (at the university level): cooperation between HEIs is based on adequate contracts; joint programmes are internationally recognized, and delivered in cooperation with accredited HEIs; the HEI delivers the programme within a doctoral school in line with the regulations (it is based on contracts in the case of multiple institutions, and the HEIs ensure good reaccreditation aimed at supporting the candidates);</p>	<p>N/A</p>

at least 80% of courses are delivered by teachers employed at HEIs within the consortium.	
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QUALITY ASSESSMENT

	Quality assessment ("high level of quality" or "improvements are necessary") and the explanation of the Expert Panel
1. RESOURCES: TEACHERS, SUPERVISORS, RESEARCH CAPACITIES AND INFRASTRUCTURE	
1.1. HEI is distinguished by its scientific/artistic achievements in the discipline in which the doctoral study programme is delivered.	<p>High level of quality</p> <p>Based upon data from the SER, the Faculty's teachers and supervisors has on average of 15 publications the last 5 years (median = 13, minimum=0, maximum=56), which gives an average of 3 publications per person each year. This production is good and indicates active research production. The research production of each teacher/supervisor is cited on average 16.9 times the last five years. The median citations per person is 6, indicating a small number of researchers with many citations (right-tailed distribution), and a larger number with fewer citations. Each publication is cited on average 1.35 times and the median citations per article is 0.52, indicating a low citation rate of the publications stemming from the Faculty and the PhD programme. This low citation rate per article may explain the low h-indexes for the teachers/supervisors (described in the SER).</p> <p>Recommendation: The Faculty is advised to publish more in international peer-reviewed journals with high impact factor. Focusing more on high-level research journals instead of conference publications and national journals will increase the readership and hence the citations of the research from the Faculty and PhD-programme.</p> <p>The Faculty is an internationally well-known and respected HEI in Maritime Studies. This is shown through their participation and their membership in the executive board of International Association of Maritime Universities (IAMU) and their hosting a recent IAMU conference in Opatija in 2015 as well as a number of other conferences the last five years.</p> <p>The Faculty also has collaborated and coordinated a</p>

	<p>number of research projects in the last years indicating an active role in applying for research funding from national, regional and European funding agencies.</p> <p>Another important aspect of research production is the internationalisation of the research – the extent to which research is disseminated to international research community and to the industry, student and staff exchange, as well as the influx of foreign researchers that collaborate with the programme. The PhD programme still needs improvements with respect to internationalisation, as per the information given to the Panel during the visit, no PhD-students from the Faculty have been on an Erasmus exchange in the years 2013-2016. For staff these numbers are better, but still low – incoming staff was 5 and outgoing staff was 3.</p> <p>Recommendation: The Faculty is advised to increase the number of international Erasmus exchanges for both staff and PhD students.</p> <p>Recommendation: The Faculty is advised to advertise for both students and teachers internationally in English, and via Euraxess. The Faculty is advised to conduct courses in English, otherwise international student will not apply.</p> <p>Recommendation: The Faculty is advised to give incentives for writing the PhD thesis in English, as this would allow a truly international evaluation committee and hence increase the availability of the research from the PhD-programme.</p>
<p>1.2. The number and workload of teachers involved in the study programme ensure quality doctoral education.</p>	<p>Improvements are necessary</p> <p>More than 50% of the courses are given by own faculty. According to SER, 80% of the study programme is performed by personnel at the Faculty of Maritime Studies in Rijeka.</p> <p>The average workload for the teachers is 374.5 hours. A total of 25 of teachers have a workload of more than 360 work hours, and one teacher has 645 work hours and two other have 525 work hours. Teacher workload is also mentioned as a weakness in the 'Strategic Programme for Scientific Research'.</p>

	<p>Recommendation: The Faculty is advised to ensure that teaching load for teachers and supervisors/mentors does not exceed full teaching load as measured in norm hours.</p> <p>The numbers of courses that is needed to be taken by the students are 6, and the ECTS credits (50) are also much larger than common in the Bologna framework.</p> <p>Recommendation: The Faculty is advised that teaching hours of the students is too high. A reduction in course number would reduce teacher as well as student work load.</p> <p>Recommendation: The Faculty is advised to the required course ECTS credits so it is better reduce aligned with the 30 ECTS credits which is standard in other EU countries.</p>
1.3. The teachers are highly qualified researchers who actively engage with the topics they teach, providing a quality doctoral programme.	<p>High level of quality</p> <p>The quantity and quality of publications the last five years are sufficient. The distribution of publications between book chapters (3%), peer-reviewed articles (45%) and peer-reviewed conference proceedings (52%) are good (as determined by following the links for all researchers in table 1 and table 2).</p> <p>Some points that still need improvements are in the dissemination of research in international sources. The Panel has seen in PhD theses or in publication lists a tendency that the majority of articles/conferences are published in regional or Croatian journals and conferences. To increase the internationalisation of the PhD programme, there needs to be a larger focus on publishing in international journals. A wider dissemination of publications from the PhD programme can also increase the citation rate and h-index of the researchers involved in the PhD programme.</p> <p>Recommendation: The Faculty is advised to focus more on publications in international journals.</p>
1.4. The number of supervisors and their qualifications provide for quality in producing the doctoral thesis.	<p>High level of quality</p> <p>On page 1 in the SER, the number of enrolled doctoral</p>

	<p>candidates are said to be 130, while the number of active doctoral candidates are 85 (because 45 has not officially signed out). The numbers of supervisors (mentors) that are available are 72. By counting the total number of enrolled PhD students, this gives as total candidate : supervisor ratio of 1.8, which is below the requirement of 3 given by the authorities.</p> <p>When only focusing on the candidates that are doing research work (and hence have been given a permanent mentor/supervisor), the candidate : supervisor ratio is 1.57 (p. 9 in SER).</p> <p>The supervisors' qualifications are good, but 4 out of 16 supervisors (all 4 are Full Professors) have less than 5 publications the last 5 years (hence, lower than one publication per year). Also, the h-index of supervisors is quite low with 8 out of 16 supervisors having an h-index < 3, and the maximum number being 11. This might probably be connected with the tendency to publish in regional journals and conferences.</p> <p>Recommendation: The Faculty is advised to ensure that Full Professors continue with the production of research and with publishing in international journals.</p> <p>Recommendation: The Faculty is advised to increase the focus on publishing international journals with high impact factors to ensure improvement in the impact of research produced at the Faculty.</p> <p>Involvement in international or national research projects is ok, in particular involvement in H2020, but some researchers do not have participation in international research projects the last five years.</p> <p>Many of the PhD theses had either no international publications or very few. Most papers were poorly cited. Again the reason might be because of publishing in regional journals or conferences.</p> <p>One thesis was identified to have been reviewed by the supervisor of the thesis. This identified insufficient quality review and insufficient supervisor support from the department to source adequate reviewers.</p>
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	<p>During the visit, the Panel met alumni who had more than 20 publications stemming from their PhD research. Some of the students had many conference publications and fewer journal publications. The amount of publications is impressive, but still the citation of these publications are quite low.</p> <p>Recommendation: The Faculty is advised to ensure that PhD students focus on submitting and publishing manuscripts more in international journals and less in conferences.</p> <p>During the visit to the University, additional information was requested about the time it took for PhD-students to finalise their PhD thesis. The average time is of 5-6 years, which is too long.</p> <p>Also, very few of the industry-sponsored and self-paying students have managed to complete their thesis, and have dropped out.</p> <p>Recommendation: The Faculty is advised to support industry and self-paying students, by mentorship and extra hours of courses, and reduced teaching commitments.</p>
<p>1.5. The HEI has developed methods of assessing the qualifications and competencies of teachers and supervisors.</p>	<p>Improvements necessary</p> <p>As described in the SER, supervisors and teachers are evaluated by the Commission for Science and Postgraduate Study (hereafter “the Commission”). The work by the Commission is described in Article 6 to Article 8 in the “Rulebook on Postgraduate University Study “Maritime Affairs” (consolidated text)”. The Rulebook describes the responsibilities of the Commission – and as such points out a responsible entity to perform duties of ensuring quality of the study programme, quality of supervisors and teachers. As such, the framework is sufficient.</p> <p>However, the assessment requirements for evaluating teachers and supervisors are not present (how many publications is required to be seen as an active researcher? what is the definition of “success of mentoring”? and what requirements exist for evaluating a</p>

	<p>supervisor/mentor as either eligible or not eligible for supervising new PhD-students?). These requirements are necessary to understand the overall quality of the process.</p> <p>Recommendation: The Faculty is advised to describe the assessment requirements for assessing whether an employee can be supervisor/mentor - so to make the evaluation process transparent and open for evaluation.</p>
<p>1.6. The HEI has access to high-quality resources for research, as required by the programme discipline.</p>	<p>High level of quality</p> <p>The Faculty has ship bridge simulators, engine room simulators, part-task simulators (ECDIS) and radio communication simulators which is of good quality and of recent produce. Simulators are from well-known producers (e.g. TRANSAS and Norcontrol) and are common tools for conducting research on navigation, vessel manoeuvring, marine engineering, simulator training and so on. Simulators are similar to those found in other maritime universities in Europe, and of a type which is often used in applied maritime research.</p> <p>The library seen during the university visit was in good condition and was of sufficient quality. The library stated that they could order books they do not have from other universities. Sufficient access to online journals was available.</p> <p>Improvements could be done on the access of international search databases for research literature. At the visit, the Panel understood that the payment for the databases was done at the national level – and that some of the data bases were lacking because of a missing payment from the government. Despite of this, the students had access to IEEE and Scopus and other major data bases because the Faculty had paid for access to these databases themselves (Elsevier was not available).</p> <p>Recommendation: The Faculty is advised to ensure further access to relevant databases and books for their PhD students.</p>
2. INTERNAL QUALITY ASSURANCE OF THE PROGRAMME	

<p>2.1. The HEI has established and accepted effective procedures for proposing, approving and delivering doctoral education. The procedures include identification of scientific/ artistic, cultural, social and economic needs.</p>	<p>High level of quality</p> <p>According to the SER, the Faculty Council examines the needs of economy for initiating a new study and according to the done examination (continuously done by Faculty of Maritime Studies in Rijeka), and according to the interests of students for enrolment on doctoral study, brings the decision regarding the initiation of new cycle. Rulebook on Postgraduate University Study »Maritime Affairs« help in organisation postgraduate study.</p>
<p>2.2. The programme is aligned with the HEI research mission and vision, i.e. research strategy.</p>	<p>High level of quality</p> <p>In the Faculty's Strategy and in The Strategic Programme of Scientific Researches 2013 – 2018, doctoral study is marked as one of the most important assignments of scientific work and the basis for strategic goals.</p> <p>Postgraduate study programme is realized through nine study directions: nautical studies, marine energetic and ship power systems, electronics and marine communications, information technology in maritime sciences and traffic, logistics and management in maritime affairs and traffic, hydrographic engineering, port systems, protection of sea and coastal area, maritime and navy systems.</p> <p>Institutes are heads of some study programmes and are responsible for doing the scientific – research and professional work in the area of study programmes.</p> <p>Until now, Faculty has been included in 14 domestic (Ministry of Science, Education and Sports and Croatian Science Foundation) and on 32 international projects (FP4, FP5, FP6, FP7, Tempus, INTERREG, IPA and IAMU). Doctoral students employed at the Faculty are involved in research projects, which is not always the case for other students.</p> <p>Recommendation: Involve self-funded and industry funded students in research projects.</p>
<p>2.3. The HEI systematically monitors the success of the programmes through</p>	<p>High level of quality</p>

<p>periodic reviews, and implements improvements.</p>	<p>According to the SER, Faculty of Maritime Studies passed re-accreditation process in 2011. Success of the programme, as well as the organization of postgraduate study is evaluated by questionnaires among PhD students and alumni. Analysis of scientific production of teachers is continuously done while initiating new cycle and while naming the mentors.</p> <p>In the Strategic Programme of Scientific Researches 2013 – 2018, reducing time for completing doctoral study is pointed out as one of the key important goals. The evaluation of the doctoral programme is focused around the performance indicators – “Quality of research”, “Scientific research work”, “Quality of personnel that does the research” and doctoral study.</p> <p>Recommendation: The Faculty is advised to ensure that PhD-students can make an assessment independently of their supervisor/mentor. This is to ensure that mentors do not influence students’ assessment so as to give more positive (or negative) remarks than the student would have done independently.</p>
<p>2.4. HEI continuously monitors supervisors' performance and has mechanisms for evaluating supervisors, and, if necessary, changing them and mediating between the supervisors and the candidates.</p>	<p>Improvements are necessary</p> <p>The SER describes the teachers, the supervisors and the candidate’s research performance.</p> <p>The Panel was given information about the average time from enrolment to dissertation defence for the last 19 students (average time 5 years and 3 months).</p> <p>No information on completion rates is given in the SER. From the first page of the SER we see that 130 PhD students are enrolled in the programme, while only 85 are active. This gives a dropout rate of $45/130 = 34.6\%$ which is probably much lower than the real number because only 22 PhD students are said to be working on their research part. Hence, there is a total of 63 PhD students who are at the stage of taking courses. We can assume from this that the failure rate of enrolled candidates will be much higher than 34.6%.</p> <p>Recommendation: The Faculty must ensure that</p>

	<p>enrolled PhD students have a real possibility to finish within 4 years for full-time students and within 6 years for part-time students. This is particularly true for self-funded or industry-funded PhD students.</p> <p>Recommendation: The Faculty must work to increase the success-rate of their PhD students. As of now, the non-completing rate is much too high especially for self-funded and industry funded students (information from interviews).</p> <p>Recommendation: The Faculty is advised to closely monitor the success/failure rate of their PhD students.</p> <p>The evaluation of academic success is described in the Strategic Programme of Scientific Researchers 2013 – 2018.</p>
2.5. HEI assures academic integrity and freedom.	<p>High level of quality</p> <p>According to the SER, mentor's statement regarding originality of doctoral dissertation is applied. Besides that, TURNITIN programme package is used to check for cases of plagiarism.</p> <p>Another aspect of academic ethics is the openness about one's contributions and methods. All scientists aim to provide new knowledge with a clear and concise description of how this new knowledge came to be. However, the Panel found that in some PhD-theses there was no synopsis of the scientific contributions of the research done during the PhD-project.</p> <p>Recommendation: Doctoral dissertation, must explicitly point out the achieved scientific contribution of the research work using synopsis or Executive summary.</p>
2.6. The process of developing and defending the thesis proposal is transparent and objective, and includes a public presentation.	<p>Improvements are necessary</p> <p>Application for defending the theme of doctoral dissertation is arranged by Rulebook on Postgraduate Study, Chapter Registration of the subject of doctoral</p>

	<p>dissertation (Articles from 37 to 41). It is described in SER that the mentor/supervisor can be part of assessment committees.</p> <p>Recommendation: Mentor/supervisor must <u>not</u> be part of assessment committees.</p> <p>The assessment committees seldom contain non-Croatian speaking academics or experts.</p> <p>Recommendation: The majority of doctoral theses should be written in English so as to allow for a truly international assessment committee. This is also connected to other points in part 1 of this report.</p>
2.7. Thesis assessment results from a scientifically sound assessment of an independent committee.	<p>Improvements are necessary</p> <p>Each commission for defending the doctoral thesis has to have at least one person from other university or scientific institution, and one substitute member has to be appointed as well.</p> <p>PhD student, according to study programme, on his third semester within research on the project, must publish at least one paper in English language in the magazines represented in other significant bibliographic databases, category B – SCOPUS according to the Rulebook for Selection in Scientific Vocations in Technical Sciences.</p> <p>The scientific production from the PhD programme as described in the SER (Table 2: Mentors and doctorands) is 102 publications from the 16 dissertations in progress. The number of citations these publications are low - 70 of them are cited in SCOPUS.</p> <p>Recommendation: It is recommended that doctoral students publish at least one scientific peer-reviewed article at category A (SCI) relevant to the area before defending doctoral thesis.</p> <p>As the majority of doctoral theses are written in Croatian, the assessment committee cannot be international as only Croatian-speaking academics can be in the assessment committee. Despite the fact that the Faculty ensure an external assessor (e.g. a person not working at the</p>

	<p>University of Rijeka), this does not give a sufficient diversity in the assessment commission to call it an external commission. As mentioned in the SER, the Faculty allows the supervisor/mentor to be part of the assessment committee because there are few persons available who are experts in the field of study. The Panel finds this argument to be true for the former Yugoslavia, but not true for the international research community. Hence, the usage of Croatian language (during interviews the Panel was given written information that all doctoral theses have been written in Croatian) forms an artificial barrier which reduces the internationalisation and insulates the PhD programme from the rest of the world.</p> <p>Recommendation: Ensure that the majority of PhD theses are written in English.</p> <p>Recommendation: The tendency to publish mainly in regional sources ought to be changed to increase the international dissemination of the research as well as increasing the impact of the research from the PhD programme.</p>
2.8. The HEI publishes all necessary information on the study programme, admissions, delivery and conditions for progression and completion, in accessible outlets and media.	<p>High level of quality</p> <p>On web pages of Faculty of Maritime Studies there is special part dedicated to postgraduate studies where are all the relevant information regarding the study, including documents relevant for students and teachers.</p> <p>Head of postgraduate studies continuously inform the students and teachers about all information regarding study.</p> <p>Recommendation: Panel concluded that the courses were not advertised internationally very well, and not in English, thereby not attracting international candidates.</p>
2.9. Funds collected for the needs of doctoral education are distributed transparently and in a way that ensures sustainability and further development of doctoral education (ensures that candidates' research is	<p>High level of quality</p> <p>According to SER, high level quality programme will be considered the one which has established the system of financing the study and researches of the PhD students within the institution.</p>

<p>carried out and supported, so that doctoral education can be completed successfully).</p>	<p>HEI ensures the means for covering costs of the research and dissemination of the results of the scientific results of its own PhD students.</p> <p>School fees are spent on teacher's payments and their work regarding teaching, on mentorship work and on financing scientific activity.</p> <p>PhD students engaged on cooperative working positions of assistants on Faculty (full time working PhD students) do not have to pay school fee and are supported in their research through specially funded financial means of Institutions and Departments.</p> <p>Recommendation: The Panel concluded that there was not great transparency as to where the funds from the students' fees was used. There was a lack of funding for a full range of online journal publications. However funding for most of the essential journals were available.</p>
<p>2.10. Tuition fees are determined on the basis of transparent criteria (and real costs of studying).</p>	<p>High level of quality</p> <p>According to SER, school fee is defined on the bases of needs of payment of actual costs of work of teachers and mentors and other real costs of teaching and research, writing doctoral dissertation and its defence.</p> <p>Recommendation: Actual school fee needs to be announced every year and has to be comparable to other HEI.</p> <p>Try to find additional governmental or EU funding to cover full or part of a tuition for each PhD student based on his/her results of study and research, as was the case in Slovenia.</p>
<p>3. SUPPORT TO DOCTORAL CANDIDATES AND THEIR PROGRESSION</p>	
<p>3.1. The HEI establishes admission quotas with respect to its teaching and supervision capacities.</p>	<p>Improvements are necessary</p> <p>According to the SER, enrolment quotas are between 10-30 doctoral candidates each year. The final decision on the</p>

	<p>number of candidates is based on decisions of the council, commission for science, whereupon the Faculty council makes the final decision. According to the SER, the HEI does confirm that the capacity of teachers and supervisors determines the final decision. However, according to the SER the teaching hour for some of the supervisors is greater than full load.</p> <p>Recommendation: It is recommended that the HEI ensures that the workload for the supervisors does not exceed full load.</p> <p>According to the SER, 130 doctoral candidates are currently enrolled in the programme and the HEI report to have 72 potential mentors. This implies that the candidate : supervisor ratio is below the legal recommendations of 3:1. However, the doctoral candidates are assigned a supervisor after the courses are completed and the topic of the dissertation is approved. According to practise in other comparable EU countries the doctoral candidates are assigned a supervisor upon admission to a doctoral programme. In this way the supervisor provide support to the doctoral candidates in the entire process, including selection of topic, design of the doctoral project, selection of relevant courses, research activities and writing of thesis. During the interviews with the doctoral candidates, the quality of supervision was however described as very good, and several of the candidates reported to have day-to-day contact with their supervisor.</p> <p>Recommendation: In order to align with other comparable EU countries, it is recommended to assign a supervisor as soon as possible candidacy starts. The supervisor will assist in selection of topic, design of the doctoral project, selection of relevant courses, research activities and writing of thesis.</p>
<p>3.2. The HEI establishes admission quotas on the basis of scientific/ artistic, cultural, social, economic and other needs.</p>	<p>High level of quality</p> <p>According to the SER, the HEI does confirm that admission quotas are defined based on scientific/ artistic, cultural, social, economic and other needs. About six months before announcement of vacancy, the HEI performs an</p>

	<p>analysis of the market to identify the interest of potential candidates (SER, p. 19).</p> <p>According to the SER, the HEI continuously work on research projects that involve the maritime industry. Currently they have three projects going on that involve both teachers and doctoral candidates.</p> <p>The HEI also reports that all doctoral candidates that have completed their studies are employed either as head managers in companies or work as teachers/researchers in maritime educational institutions.</p>
3.3. The HEI establishes the admission quotas taking into account the funding available to the candidates, that is, on the basis of the absorption potentials of research projects or other sources of funding.	<p>High level of quality</p> <p>According to the SER, the HEI confirm that they establish the admission quotas taking into account the funding available to the candidates. They further confirm that doctoral candidates that are employed by the Faculty do their research within scientific projects of Ministry of Science, Education and Sports. In addition, the doctoral candidates reported that they had all necessary resources available for their research.</p>
3.4. The HEI should pay attention to the number of candidates admitted as to provide each with an advisor (a potential supervisor). From the point of admission to the end of doctoral education, efforts are invested so that each candidate has a sustainable research plan and is able to complete doctoral research successfully.	<p>Improvements are necessary</p> <p>According to SER, each doctoral candidate is assigned a study advisors at the time of enrolment.</p> <p>The HEI reported in the interviews that they accepted all the self-funded applicants as long as they meet the admission criteria (in last cycle one applicant was rejected). This indicates that the evaluation of the candidate's ability to complete their thesis successfully prior to enrolment may be improved.</p> <p>Recommendation: It is recommended that the HEI establish a procedure on how to evaluate the self-paid and industry-funded applicants' ability to complete their doctoral research successfully prior to enrolment.</p>
3.5. The HEI ensures that interested,	

<p>talented and highly motivated candidates are recruited internationally.</p>	<p>Improvements are necessary</p> <p>The HEI reports to have only one doctoral candidate from a foreign country. However, the HEI report that they advertise the doctoral study internationally (but not in English) and that they aim at enrolling a higher number of foreign students in the future. The currently low number of foreign students may be related to the fact that courses are taught in Croatian language.</p> <p>Recommendation: It is recommended that the HEI continue to advertise the doctoral study through international channels, and in English. In order to actually recruit candidates from outside former Yugoslavia, it is recommended that PhD-courses are taught in English.</p>
<p>3.6. The selection process is public and based on choosing the best applicants.</p>	<p>High level of quality</p> <p>According to SER, the call for application is published through various channels few months before enrolment. A list of applicants is publically announced along with the procedure of selection of candidates. According to the interviews with the management, the selection of candidates is based on grades in graduate studies and recommendations from professors. According to the SER, the HEI report that in case of equal qualified applicants, the enrolment will be given to those who have published scientific articles.</p>
<p>3.7. The HEI ensures that the selection procedure is transparent and in line with published criteria, and that there is a transparent complaints procedure.</p>	<p>Improvements are necessary</p> <p>The candidate selection procedure is, according to the SER, presented in the "Rulebook on Postgraduate University Study 'Maritime Affairs'". The list of candidates is announced publically and the candidates may complain on the decision within eight days. Any complains are handled by the Dean of the Faculty, and his/her decision is final.</p> <p>Recommendation: It is recommended that any complains about the decision are treated by a committee rather than the Dean alone. In this way, the final decision is a result of the evaluation of several persons and not on the judgement of one person.</p>

<p>3.8. There is a possibility to recognize applicants' and candidates' prior learning.</p>	<p>High level of quality</p> <p>According to the SER, the doctoral candidates will receive credit for previous academic achievements. The procedure for recognizing prior learning and achievements relevant for the doctoral programme are described in the Rulebook on Postgraduate Study.</p>
<p>3.9. Candidates' rights and obligations are defined in relevant HEI regulations and a contract on studying that provides for a high level of supervisory and institutional support to the candidates.</p>	<p>Improvements are necessary</p> <p>According to the SER, the Rulebook on Postgraduate Study Maritime Affairs regulates the rights and obligations for the doctoral candidates.</p> <p>The candidates have to acquire 50 ECTS in doctoral courses (according to the "Rulebook on Postgraduate University Study 'Maritime Affairs'"). The courses are according to the HEI completed during the third semester. The high number of ECTS credits may delay the process of finalizing the thesis. The norm in comparable EU-countries is that doctoral candidates have to acquire 30 ECTS in doctoral courses.</p> <p>Recommendation: It is recommended that the HEI reduce the number of ECTS to the level of comparable EU-countries, and that the courses are completed in an earlier stage in the process.</p>
<p>3.10. There are institutional support mechanisms for candidates' successful progression.</p>	<p>Improvements are necessary</p> <p>In general, the students were satisfied with the institutional support. They reported to receive the equipment and financial resources that they needed in their research. According to the SER, 19 doctoral candidates have presented 31 papers on 26 scientific conferences with support from the Faculty (the last 5 years). In addition, the Faculty has financed 15 doctoral candidates via scholarships (the last 5 years).</p> <p>However, the HEI reported that the average time to complete the thesis was 5 years and 3 months while the maximum time spent was 8 years and 3 months.</p> <p>Recommendation: The HEI should identify factors that influence the doctoral candidates' ability to complete</p>

	their thesis according to plan, and if necessary revise their admission quotas in order to release resources to existing doctoral candidates.
4. PROGRAMME AND OUTCOMES	
4.1. The content and quality of the doctoral programme are aligned with internationally recognized standards.	<p>Improvements are necessary</p> <p>The programme, which was presented to the Expert Panel, meets the requirements of training doctors at the European level as well as at the national level (Croatian Qualifications Framework). Minimal training is 3 years, which allows the candidate to acquire generic (transferable) skills and international experience.</p> <p>The self-evaluation contains a reference to the criteria for admission of students to train on level 3 (doctoral students). These criteria also clearly stated on the Faculty webpage: http://www.pfri.uniri.hr/images/stories/Doktorski_studij/pravilnik.pdf.</p> <p>The duration of courses is at least 3 years, including lecture training during the first year, but average number of years is 5-6 years. During specified period, students are required to study basic subjects (10) as well 6 to 11 elective subjects, depending on the block from which they choose (http://www.pfri.uniri.hr/images/stories/Doktorski_studij/Programme-poslijediplomskog-sveucilisnog-studija-Pomorstvo-2015_16%20-%20VII%20ciklus.pdf). Thus students have enough time to also conduct their own research.</p> <p>In addition to the courses directly related to the consideration speciality for students, the Faculty offers general methodological subjects which will help in planning and conducting of research, for example: 1.1.1. Scientific -Research Methods, or 1.2.1. Action Research.</p> <p>Faculty's Rules and Regulations of Doctoral Studies clearly define the roles and tasks of the supervisor. The Faculty Council decides on the number of doctoral students that a mentor can supervise at the same time. Expert Panel did not find a significant excess of the number of students at one of the supervisors.</p> <p>Every year the student prepares an individual plan of subject study, an example of which is given in «Evidencija izvedene nastave i nazočnosti studenata». This plan is</p>

	<p>developed in cooperation with the supervisor, here is marked the process of its execution, and adjustments are made if necessary.</p> <p>Every semester, each student has to prepare a report (form "Semestralno izvješće o izvedenoj poslijediplomskoj nastavi"), which is at first evaluated by research supervisor.</p> <p>Panel members familiarized themselves with the procedure adopted for the preparation of the PhD thesis defence, its preliminary assessment, with directly the defence process and the related documentation that has been presented in full. Panel members had the opportunity to get acquainted with the separate PhD theses.</p> <p>When it comes to the PhD-theses made available to the Expert Panel, a small number of the PhD theses lacked sufficient international journal publications, and many publications has references only to local journals and conferences.</p> <p>Recommendation: It is necessary to ensure that the PhD theses and research work contained therein are better than the minimum requirements as stated in the regulations for the PhD programme.</p> <p>Recommendation: It should be a requirement that the PhD theses and publications written during the PhD work contain a majority of references to international research – and not only to regional journals and conferences.</p> <p>The PhD programme „Maritime Affairs“ requires interdisciplinary research. It is not surprising therefore that a large number of PhD theses had two scientific co-supervisors. The re-accreditation Expert Panel thinks that allocating two supervisors to a PhD-student is good for interdisciplinary programs.</p>
<p>4.2. Programme learning outcomes, as well as the learning outcomes within it, are aligned with the level 8.2 of the CroQF. They clearly describe the competencies</p>	<p>High level of quality</p> <p>The Expert Panel evaluated the training programme as</p>

<p>the candidates will develop during the doctoral programme, including the ethical requirements of doing research.</p>	<p>corresponding to higher level in this criterion (high quality programme). In part 4.2 of the self-evaluation is given a clear description of the basis for such an assertion. There are learning outcomes, which correspond to the reality. It should be noted as a positive fact that most of the PhD theses for last years is available for viewing on the Internet (Repository of the Faculty of Maritime Studies - https://repository.pfri.uniri.hr/en/browse/year).</p> <p>Familiarization with the presented thesis suggests that the learning outcomes in the courses are fulfilled.</p> <p>Similarly we can confirm the success of the lectures, which are based on the methods of teaching, which is described in the section 4.5 of self-evaluation. Most supervisors have the title of full professor or doctor with a sufficiently great experience research work.</p> <p>Expert Panel concluded that all the candidates had to do extensive teaching hours: mostly tutorials, but some lectures as well. It is recognised that some teaching hours experience is invaluable for transferable skills, but the hours must not be overloaded.</p> <p>Panel members interviewed the doctoral candidates who have shown successful possession of knowledge. This can be determined by becoming familiarized with the work of doctoral students in the laboratories and their participation in research projects. It clear that the project of planning and managing competencies (developing research proposals, organising research, timely identification of potential issues, budgeting, leading a research group) is the responsibility of supervisors, however doctoral students are involved in this process and hence gives them valuable training to become independent researchers. This is very good.</p> <p>Based on the analysis for completed theses, it can be concluded that the PhD students can use relevant hardware and software, statistical analyses, statistical inference, making conclusions based on quantitative data, etc. The readiness to accept ethical and social responsibility for performing research successfully, delivering socially useful research results as well as potential social impact, readiness to face new social and economic challenges, etc. has been shown by all PhD students.</p>
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	<p>Recommendation: The Faculty is advised to reduce the number of required teaching hours the PhD-students must hold.</p>
<p>4.3. Programme learning outcomes are logically and clearly connected with teaching contents, as well as the contents included in supervision and research.</p>	<p>Improvements are necessary</p> <p>Interviews with candidates and alumni and analysis of finished PhD thesis demonstrate that learning outcomes are logically and clearly aligned with individual courses, supervisory work and research correspond to high level of quality. The Panel concluded that a more concise and relevant number of course would be advised. This would reduce the number of course hours required and assist in finishing thesis in shorter time.</p> <p>Recommendation: The Panel concluded that a smaller number of courses would be advised. This would reduce the number of course hours required and assist in finishing thesis in shorter time.</p>
<p>4.4. The doctoral programme ensures the achievement of learning outcomes and competencies aligned with the level 8.2 of the CroQF.</p>	<p>Improvements are necessary</p> <p>The Expert Panel was presented with all finished and defended PhD theses in recent years. Experts can choose and look at examples of theses. It should be noted that the level of publications which have been published as a result of research is not uniform. Thus the most publications are articles in proceedings of regional conferences. Nevertheless, one can argue that the minimum requirements associated with the publishing of research results being observed in all works. The Panel also checked all the additional documentation related to the process of preparation and defence of the theses.</p> <p>Recommendation: The Faculty should explicitly define and enforce a minimum requirement for the quality and number of publications that are necessary before a doctoral dissertation is accepted to be ready for public defence.</p> <p>The Panel also identified that the assessment committee included the PhD student's doctoral mentors/supervisors.</p>

	<p>In this way the Faculty sets the stage for the possibility of a huge a conflict of interest. The Panel also notes that this type of arrangement where the supervisors are evaluating their own PhD candidates is explicitly forbidden in many European countries. The Panel firmly believes that this should also be the case at the Faculty.</p> <p>Recommendation: Mentors/Supervisor must <u>not</u> be part of assessment committees.</p>
4.5. Teaching methods (and ECTS, if applicable) are appropriate for level 8.2 of the CroQF and assure achievement of clearly defined learning outcomes.	<p>High level of quality</p> <p>In the section 1.6 of self-evaluation it is noted that the Faculty of Maritime Studies in Rijeka has equipment and laboratories that satisfy the needs of scientific – research work, and include navigational simulators (TRANSAS MARINE NAVI-TRAINER PROFESSIONAL 5000- full mission bridge navigational simulator, NORCONTROL SIMULATION NAVSIM NMS-90 - Ship Handling Simulator), navigational laboratory Navigation GNSS (for researching the effect of space weather“) ship’s engine simulators (Diesel Engine Simulator – Norcontrol PPT 200 SIMULATOR, PC-based –Norcontrol MC90 MODUL, Diesel Electric AC/AC MODUL), cargo loading simulator, radio devices practicum for maritime communications and GMDSS system, electronic laboratory and laboratory for high voltage and cooling technique devices practicum. Experts pointed out the use of these laboratories in doctoral training process and carrying out research projects under the guidance of supervisors.</p> <p>Panel experts analysed the programme and course structure from point of view of used methods (ex-cathedra teaching, individual work with the supervisor, discussion groups, workshops etc.). It was found that the learning groups are small enough, each doctoral student has the opportunity to gain knowledge related to the subject of his dissertation. Used methods for education are appropriate for achieving intended learning outcomes.</p>
4.6. The programme enables acquisition of general (transferable) skills.	<p>High level of quality</p> <p>Unfortunately, during the visit, Panel experts did not have the opportunity to meet with employers - representatives of various companies belonging to the maritime industry.</p>

	<p>At the same time, the self-evaluation noted that the Faculty of Maritime Studies in Rijeka continuously works on scientific research projects that includes marine companies. Currently, Faculty has three projects that directly includes teachers and PhD students (KIKLOP, TRECVET and ACTS).</p> <p>The Faculty allows students to take courses from other PhD-programs. Also, the majority of PhD students now are employed in the companies and organizations of maritime industry. Faculty has been included in 14 domestic (Ministry of Science, Education and Sports and Croatian Science Foundation) and on 32 international projects (FP4, FP5, FP6, FP7, Tempus, INTERREG, IPA and IAMU), where PhD students can do their own research.</p>
4.7. Teaching content is adapted to the needs of current and future research and candidates' training (individual course plans, generic skills etc.).	<p>Improvements are necessary</p> <p>The self-evaluation noted that, in addition to the required courses, students must choose from 6 to 11 elective courses, depending on the block they choose from. Thus it can be argued that the proposed programme of doctoral training is flexible and customizable to the needs of the specialist training in the chosen direction of research.</p> <p>However, the number of courses is too many, and despite giving good flexibility it increases the workload for teachers and delays the student from starting their research work.</p> <p>Recommendation: Reduce the number of required mandatory and elective courses.</p> <p>Similarly, it can be argued that individual doctoral plans are sufficiently flexible and in consultation with the supervisor can be changed during the preparation of the PhD theses. Plans regarding research work of PhD students are an integral part of the application for defence of the doctoral thesis and can be changed during the preparing of the thesis.</p>
4.8. The programme ensures quality through international connections and teacher and candidate mobility.	<p>Improvements are necessary</p> <p>Section 4.6 of the self-evaluation noted the importance of</p>

	<p>international cooperation and, in particular, Rulebook on Postgraduate Study, by its Article 26 provides to the doctoral students to realize 20 ECTS credits if they are residing in other domestic or foreign universities and research institutions for at least three months in total. Additionally, HEI regularly informs and instructs the PhD students on trainings such as Workshop on Teaching Competences in Higher Education, attended by five (5) PhD students.</p> <p>On the basis of meetings with Faculty leadership, supervisors and doctoral students, it can be concluded, that the Faculty systematically provides information on opportunities for candidate mobility, encourages and achieves it; ensures means to attract and attracts international faculty and excellent candidates to the programme.</p> <p>Unfortunately, the mobility programme is used in a limited extent. The main problem is the level of centralized financing of mobility programs, which is insufficient. As a result, the individual thesis of students who were able to take the opportunity of mobility, have a substantially higher level of scientific research. The management of the Faculty recognizes the need to expand activities in this direction. Erasmus programme was used to a limited extent.</p> <p>Recommendation: The Faculty must increase student exchange with foreign universities. The number and length of student exchanges needs to increase.</p> <p>The Faculty applies to international projects (FP, MZOS, HRZZ, etc.).At the same time, part of doctoral students are involved in international projects, but with limited success in this area.</p> <p>The above conclusion was made on the basis of the data presented in the self-evaluation. In particular, it was noted that ten foreign teachers are involved in carrying out study programme, and the study has also been offered to foreign citizens. Currently, one foreign citizen has enrolled the study (Egypt), while so far one foreign national has successfully completed the study.</p> <p>Recommendation: The Faculty should work to</p>
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	<p>increase the number of foreign students in the PhD-programme.</p> <p>The Faculty has shown that foreign teachers are included in the study programme. Examples are Alfonz Antoni (Hungary) who has held consultative classes in the cooperative institution in Dubrovnik. The extent of participation of international academics and teachers could be extended to a great deal –helping the internationalisation of the PhD programme.</p> <p>Recommendation: Increase the inclusion of foreign specialists and academics as teachers and supervisors in the study programme – either through research participation or the establishment of positions of part-time Adjunct Professor positions.</p> <p>Members of committee for assessment and defence of doctoral dissertation may be international teachers. However, the usage of Croatian language in writing doctoral theses exclude a large number of academics from being part of the doctoral assessment committees.</p> <p>Recommendation: Ensure that a majority of PhD theses are written in English to allow foreign experts to be part of the assessment committees.</p> <p>PhD student Marko Valčić may be taken as an example of international training abroad, who has stayed several times at Norwegian University of Science and Technology (NTNU) as part of the project Greener Approach to Ship Design and Optimal Route Planning financed by Croatian Science Foundation (Project 8722). Although it is good that one student has been on multiple exchange visits, it is necessary that more students go on Erasmus+ exchange (please see recommendation above in this paragraph).</p>
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