



**Report
of the Expert Panel
on the REACCREDITATION
of the University Postgraduate (Doctoral) Programme
*International Inter-university Postgraduate Interdisciplinary
Doctoral Study Entrepreneurship and Innovativeness*
Josip Juraj Strossmayer University of Osijek
Faculty of Economics in Osijek**

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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 International Inter-university Postgraduate Interdisciplinary Doctoral Study *Entrepreneurship and Innovativeness* on the basis of the Self-Evaluation Report of the Programme, other documentation submitted and a visit to the Faculty of Economics in Osijek, Josip Juraj Strossmayer University of Osijek.

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: Prof. Peter Mason, London Metropolitan University, United Kingdom;
- Prof. Aleksandra Mrčela Kanjuo, vice rector of the doctoral school, University of Ljubljana, Slovenia;
- Prof. Rainer Niemann, Karl-Franzens-Universität Graz, Austria;
- Prof. Anand Murugesan, Central European University, Hungary;
- Prof. Peter-Wim Zuidhof, University of Amsterdam, Netherlands;
- Prof. Wendy Sigle, London School of Economics and Political Science, United Kingdom;
- Doc. dr. Maja Turnšek-Hančić, University of Maribor, Slovenia;
- Prof. Julius Horvath, Central European University Business School, Hungary;
- Prof. Adele Ladkin, Bournemouth University, United Kingdom;
- Ieva Krumina, doctoral candidate, Latvian University of Agriculture, Latvia;

- Hrvoje Stojić, doctoral candidate, University Pompeu Fabra, Spain;
- Jeremiás Máté Balogh, doctoral candidate, Corvinus University of Budapest, Hungary;
- Kanad Bagchi, doctoral candidate, Max Planck Institute for Comparative Public Law and International Law, Germany.

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

- Prof. Anand Murugesan, Central European University, Hungary;
- Prof. Peter-Wim Zuidhof, University of Amsterdam, Netherlands;
- Jeremiás Máté Balogh, doctoral candidate, Corvinus University of Budapest, Hungary.
- Kanad Bagchi, doctoral candidate, Max Planck Institute for Comparative Public Law and International Law, Germany.

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

- Josip Hrgović, coordinator, ASHE
- Alma Agović, assistant coordinator, ASHE
- Goran Briški, interpreter at the site visit, ASHE
- Lida Lamza, translator of the Report, ASHE.

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

- Management,
- Study programme coordinators,
- Doctoral candidates,
- Teachers and supervisors,
- External stakeholders,
- Alumni,

The Expert Panel (henceforth 'the Panel') also had a tour of the library, IT rooms, student register desk and the classrooms.

SHORT DESCRIPTION OF THE STUDY PROGRAMME

Name of the study programme contained in the licence: International Inter-university Postgraduate Interdisciplinary Doctoral Study Entrepreneurship and Innovativeness

Institution delivering the programme: Josip Juraj Strossmayer University of Osijek

Institution providing the programme: Faculty of Economics in Osijek, Josip Juraj Strossmayer University of Osijek (EFOS)

Place of delivery: Osijek

Scientific area and field: Social Sciences, Economics

Number of doctoral candidates: 57

With funding: 13; self-funded: 44; 15 out of 54 are inactive doctoral candidates (did not enrol in a higher year of study, but still have the right to study)

Number of teachers: 50 (18 from EFOS, 20 from the Osijek University; 30 teachers from other universities)

Number of supervisors: 3 (supervisors to doctoral candidates whose doctoral dissertation topics have been approved)

Overall potential supervisors: 23 (6 from EFOS and 17 from another HEI)

Learning outcomes of the study programme:

- LO 1: Ability of critical synthesis of scientific literature in the field of study and its argumentative communication to interested parties
- LO 2: Understand and acquire the ability to model the value chain (opportunity, resources, venture)
- LO 3: Explore and understand system approach in defining the competitiveness of enterprises, as the foundation of competitiveness of national economy in interaction with the ecosystem
- LO 4: Improve understanding of the process of innovation creation, process of research commercialisation and development of new concepts in scientific research in conditions of uncertainty and complexity
- LO 5: Understand and evaluate (with regard to own research interests) new trend in research methodology related to the topic of entrepreneurship
- LO 6: Recognise and define research problems and independently conduct research using appropriate research methods applying the basic concepts of system approach
- LO 7: Be able to apply and critically evaluate ethical principles and principles of sustainability in the design and implementation of own research
- LO 8: Ability to transfer and disseminate research results to the scientific and general public.

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 expectation for the period *up to three (3) years* in which period the higher education institution should make the necessary improvements.

Joint recommendations for all of the evaluated study programmes in the cluster of social sciences and the field of economics:

1. Research proposal should accompany applications of candidates and should be part of the assessment process when choosing the best candidates for enrolment.
2. Supervisor should be appointed at the start of programme.
3. Transparency of doctoral students' funding should be improved.
4. Justification of fee level should be improved.
5. There should be an equal treatment of part time and full time (fully funded) students.
6. All doctoral students should have at least 3 years of independent research in full capacity. With current teaching content taking large portion of the programmes, programmes should be prolonged to last possibly 4 or 5 year, with first (classroom) part as a Masters (Research) level.
7. Systematic internationalisation of curriculum, faculty and students (incl. student experience) should be a priority.

RECOMMENDATIONS FOR THE IMPROVEMENT OF THE STUDY PROGRAMME

1. Strengthen or introduce - where possible - additional admissions policies to secure an intake of high quality students with a clear fit to the programme. This is a demanding programme with a unique profile. The success of the programme is highly dependent of students that have a good fit with the programme so as to take the level of the programme forward.
2. Wherever and whenever possible, seek for ways to further internationalize the programme. Stimulate international mobility of faculty and students, both incoming and outgoing.
3. Secure access to international databases for use for faculty and students, so as to ensure that everyone in teaching and research has access to the latest research. This will have an enormous impact on the programme.
4. Embed PhD research as much as possible in projects. This allows for better guidance of PhD. research and further strengthens the interplay between PhD. research, faculty research, policy and business.
5. Consider requiring prospective students to submit a research proposal prior to admission that can be used as part of the application process.

ADVANTAGES OF THE STUDY PROGRAMME

1. The programme practices what it teaches. The programme is very entrepreneurial and highly innovative, not just in the Croatian context but also beyond. Given the constraints of the higher education system in Croatia and at the University of Osijek, the programme management has been able to entrepreneurially carve out a new and innovative programme. The programme is unique in Croatia and in the wider region. It has allowed the Faculty of Economics at the Strossmayer University of Osijek to gain a reputable place on the map of postdoctoral studies in Croatia and the wider region.
2. The programme is international. The Faculty that teaches in the programme has an international research profile. The language of instruction at the programme is English. This helps students prepare for international research careers, either through publication or engagement in research projects. It also allows the admission of international students from around the world. And it makes it easier to have international Faculty (visiting from abroad) to teach in the programme and supervise research. PhD. students have an opportunity to study abroad.
3. It is an inter-university programme. A number of foreign universities have been involved in setting up the programme and continue to be partners of this programme. This is an important factor for securing the quality of the programme and its international base. The programme is attracting students with previous training at other universities in Croatia and beyond.
4. It is an interdisciplinary programme. The programme seeks to be cross-cutting through disciplines (within economics and business, and in connection with other fields of study) and trains students in conducting research that combines theory, methodology and insights from multiple disciplines. It has a curriculum that is visibly designed to foster interdisciplinary research. The program adopts team-teaching towards really integrating disciplinary approaches into one inter-disciplinary course. It has also adopted some case-studies from Harvard Business School which can be fruitful for such programs.
5. The programme appears to be a significant hub in the area of policy and research and development on entrepreneurship and innovation in Croatia. It is a major player in the entrepreneurial ecosystem of not just Osijek and Slavonia, but entire Croatia.

DISADVANTAGES OF THE STUDY PROGRAMME

1. This is a very ambitious study programme that places high demands on the students in terms of doing interdisciplinary research in a novel field and in an international context. There is a concern that the programme may be more ambitious than the prior knowledge and existing research skills of the students' permits. The programme should closely watch whether the students keep up with the demands and where possible assist them in overcoming the challenges of doing practice-based, international, and interdisciplinary research.
2. The programme offers many opportunities for the students (to conduct multidisciplinary, interdisciplinary and practical research). At the same time, the students are already burdened with the demands from their jobs and other engagements. They may therefore be constrained in how much they can take advantage of the opportunities offered in the programme.
3. It is reported that the availability of research literature (through research databases) is too limited and would benefit from improvement.

4. The programme could benefit from further distinguishing itself from the Management programme offered by the same Faculty, so as to offer two clearly distinguished programmes.

EXAMPLES OF GOOD PRACTICE

1. International orientation of the programme. By offering the programme in English and having international cooperation, one is able to improve research and teaching not just internationally but also within Croatia. Internationalization is used as a way to improve quality and to integrate the research that is conducted in international contexts.
2. Inter-university cooperation: through cooperation one is able to improve quality of teaching and research, despite some of the financial and regulatory constraints that may be in place.
3. Interdisciplinary research: by organizing interdisciplinary research (e.g. through co-supervision and team-teaching) one is fostering new avenues for research.
4. Integration into the policy and business communities. Through various projects, the research and teaching that is conducted as part of this programme is firmly rooted in local, national, and regional policy and business networks. This is generating new research topics, while at the same time making research more relevant.

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 (According to MOZVAG, just over at 1: 30.29)
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 the ASHE Accreditation Council for passing a positive opinion	
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 marked as at least "partly implemented" (3).	NO "in the initial phase of implementation" (ASHE Final report from 2010), but EFOS attained full accreditation eventually.
3. The doctoral programme is aligned with the HEI's research	YES

strategy.	
4. The candidate : supervisor ratio at the HEI is not above 3:1.	YES (1:2.19)
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.	a) YES b) NO , the majority are active, but at least one is retired c) YES d) NO , as not all supervisors have projects e) YES f) NO
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).	a) NO (some are retired) b) NO (some have no research outputs, e.g. Novak)
7. The supervisor normally does not participate in the assessment committees.	NO
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.	NO The programme that has 3 semesters/60 ECTS attained in classroom content.
9. For joint programmes and doctoral schools.	n/a

QUALITY ASSESSMENT

1. RESOURCES: TEACHERS, SUPERVISORS, RESEARCH CAPACITIES AND INFRASTRUCTURE	
<p>1.1. HEI is distinguished by its scientific/artistic achievements in the discipline in which the doctoral study programme is delivered.</p>	<p>High level of quality Considering the Croatian context, the research of core faculty of this programme is of high quality in terms of output, and good in terms of publishing outlets relevant to the field of study. The Panel suggests, notwithstanding the constraints on international publication, that faculty should continue to focus on publishing in international peer-reviewed journals in addition to publications in national outlets. Research of faculty is well represented in national academic and policy contexts.</p>
<p>1.2. The number and workload of teachers involved in the study programme ensure quality doctoral education.</p>	<p>Improvements are necessary The number of teachers from the University's own faculty is sufficient for the program. Given that this is an interdisciplinary, international and inter-university programme, the share of external faculty is relatively high. This is not a concern as long as the teacher:student ratio of own faculty remains sufficient, but currently it is above the required ratio. Coupled with this is the issue of the workload of some members of faculty is (too) high, which is a concern. The Panel recommends that the Faculty rectifies this situation as soon as possible.</p>
<p>1.3. The teachers are highly qualified researchers who actively engage with the topics they teach, providing a quality doctoral programme.</p>	<p>High level of quality Quality of faculty is relatively high. The core faculty of the programme actively engages in the topics taught in the programme and are national leaders in their field. A number of external faculty in the programme are from foreign universities and are considered international leaders in their field.</p>
<p>1.4. The number of supervisors and their qualifications provide for quality in producing the doctoral thesis.</p>	<p>High level of quality The ratio of supervisors and active students is 1:1.615. The supervisors are national leaders in their field and participate in national and international research projects pertinent to the study programme. Faculty often work together with doctoral candidates on research projects and papers.</p>
<p>1.5. The HEI has developed methods of assessing the qualifications and competencies of teachers and</p>	<p>Improvements are necessary There is no formal procedure for assessment of supervisors at the University. Supervisors are monitored</p>

supervisors.	as part of general assessment. The Panel recommends that the Faculty introduces a formal procedure for assessing supervisors as soon as possible.
1.6. The HEI has access to high-quality resources for research, as required by the programme discipline.	<p>Improvements are necessary</p> <p>The programme has most of the necessary computer facilities (incl. research software) and library resources available.</p> <p>The institution provides students with support for publication, and conference participation (and in some instances translation facilities).</p> <p>It came to the attention of the Panel during the visit that students and faculty require more access to research literature via relevant databases. The Panel recommends that the Faculty invests in appropriate literature and databases</p>
2. INTERNAL QUALITY ASSURANCE OF THE PROGRAMME	
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>High level of quality</p> <p>The programme of Entrepreneurship and Innovativeness was established in 2009. Much thought and research has been put into establishing the programme. It was developed as part of a TEMPUS programme that ran from 2007-2009. This project was used to determine the need for introducing the programme and a consortium of universities (Osijek together with Durham, Turku, Maribor and Klagenfurt) worked over a period of two years to develop the programme.</p> <p>From its inception the programme has witnessed a stable demand from students.</p>
2.2. The programme is aligned with the HEI research mission and vision, i.e. research strategy.	<p>High level of quality</p> <p>The programme of Entrepreneurship and Innovativeness has been established as one of the flagship programmes of the J.J. Strossmayer University of Osijek as part of the research strategy of the University, and the research strategy of the Faculty of Economics.</p> <p>More specifically, it fits within the objectives of the university to develop joint programmes with other universities in Croatia and abroad, to foster interaction between research and business, and international cooperation in research and teaching.</p>
2.3. The HEI systematically monitors the success of the programmes through periodic reviews, and implements improvements.	<p>High level of quality</p> <p>The Programme has a sufficiently good grasp of the success of its students. The programme is subject to regular review (also in cooperation with its partner</p>

	<p>institutions) and it keeps track of the research output of researchers and its students.</p> <p>It maintains good relations with research partners and other external stakeholders in the field. On the basis of input from supervisors and students, it carefully monitors the effectiveness of its programme, through both informal and formal means, and does not hesitate to adjust the programme when this is felt necessary.</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>High level of quality</p> <p>A number of the Faculty supervisors have been receiving training (e.g. training provided by lecturers from Harvard University) in developing courses and conducting supervision.</p> <p>The programme maintains sufficient overview of the research performance of PhD candidates and their completion rates.</p> <p>It has sufficient procedures in place for assigning supervisors and mediation in case of problems. It has reported that it successfully relied on these procedures once when the situation arose.</p>
<p>2.5. HEI assures academic integrity and freedom.</p>	<p>High level of quality</p> <p>Faculty members have access to the Ephorus plagiarism software and are aware of its use and existence.</p> <p>The institution has procedures in place for addressing fraud and can withdraw a degree when it has been proven to be based on fraudulent practices.</p> <p>Academic integrity and research ethics are part of the curriculum.</p>
<p>2.6. The process of developing and defending the thesis proposal is transparent and objective, and includes a public presentation.</p>	<p>High level of quality</p> <p>The institution and programme have clear procedures for defending the thesis proposal, the appointment of the committee and protocols for submitting dissertations.</p> <p>Every committee has an external member, either from other institution or in some cases from one of the partner universities.</p>
<p>2.7. Thesis assessment results from a scientifically sound assessment of an independent committee.</p>	<p>Improvements are necessary</p> <p>Dissertations are assessed by independent committee that has – by regulation - at least one member from outside the institution. In a number of cases this has been a member of an international partner university. The thesis advisor cannot be the chair of dissertation committee, but is member. However, the Panel recommends to be an entirely independent committee the role of the supervisor/advisor in relation to the committee should be</p>

	<p>re-considered with a view to replacing them on the committee.</p> <p>Students receive credit for (international) publication and presentation at conferences. The number of international peer-review publications and international conference presentations could be improved.</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>Information about the programme is publicly available; most of it also in English, which enhances the international profile of the programme.</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 carried out and supported, so that doctoral education can be completed successfully).	<p>Improvements are necessary</p> <p>There is a sustainable system for funding the programme in place. The programme has shown from what sources funding is secured and how these funds are allocated. Students report that they are able to carry out the requirements of the programme. However, as the programme is very costly, the Panel recommends that the Faculty should make further efforts to secure additional outside funding for the programme to enable students to participate in it at a lower cost.</p>
2.10. Tuition fees are determined on the basis of transparent criteria (and real costs of studying).	<p>High level of quality</p> <p>The programme explains how the tuition fee is determined and reflect real costs of studying.</p>
3. SUPPORT TO DOCTORAL CANDIDATES AND THEIR PROGRESSION	
3.1. The HEI establishes admission quotas with respect to its teaching and supervision capacities.	<p>Improvements are necessary</p> <p>The programme maintains a high-quality admissions policy. There is a sufficient number of supervisors. Fifty teachers are involved in the doctoral study Entrepreneurship and Innovativeness, twenty of which are from the University of Osijek, while the remaining thirty are from other universities in Croatia or abroad. However, the Panel are concerned that more than half the supervisors are from outside the University. Teachers' expertise matches that of students. Teachers' workload, on average, is within the allowed limit of 360 norm-hours per teacher. However, the Panel is concerned that some staff have at least 500 hours and, additionally, several external staff will clearly have commitments elsewhere. The Faculty needs to carefully monitor workload of its own faculty as well as the performance of external supervisors/teachers.</p>

	<p>PhDs for this programme are mainly coming from the field of polytechnics, industry and business. The full programme is provided in English. Most of enrolled student are from Croatia, with a limited number of one-semester Erasmus students are from abroad (e.g. Armenia). The programme also provides on-line courses (e.g. by Skype).</p> <p>From interactions with the students, they appeared to be content with respect to both the quality of supervision and the amount of time that supervisors are willing to provide to students.</p> <p>The main challenges of the programme are: team teaching, teamwork, develop critical mass of researchers and potential lecturer for the program. Since many of the students are undertaking the programme part-time, team building is a concern. In this regard, the annual conference at the economics faculty serves as a focal point of collaboration and congregation among the students and it is recommended such events are conducted, even if on a smaller scale, more often, so as to build a sense of community amongst the students.</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>The PhD study programme clearly satisfies academic, social and economic needs.</p> <p>Students and faculty of the programme are engaged in several research projects conducted by the University jointly with business participants.</p> <p>Practically all graduating students have found employment. Graduates went on to teach at other universities such as the University of Applied Science (VERN) and the Zagreb School of Economic and Management. A few PhD students founded individual enterprises. Others were employed in the public sector, e.g. working for the city of Osijek while some others went into the private sector.</p> <p>Many the students come into the PhD programme with experience in business and return to their jobs after completing their PhD's. A handful of students is employed at the University itself as teaching assistants and collaborated frequently with the teaching staff.</p>
<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>	<p>Improvements are necessary</p> <p>With the exception of those PhD students that are employed as assistants by the Faculty, most other PhD students were self-funded. Out of the 57 students enrolled, 13 are funded as assistants at the university. Most other students are working in the business sector and are self-funding their studies, and often do not receive</p>

	<p>compensation for their PhD studies from their employers. Also, there appear to be no students who work on funded research projects. The Panel recommends that students are provided with the opportunity to work on projects.</p>
<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>	<p>High level of quality</p> <p>The programme assures that all candidates are provided with a suitable supervisor and oversees student progress so they are able to complete their research successfully. Upon the approval of the topic of the doctoral dissertation, each student is appointed a supervisor. The Head of study takes care that supervisors have research references in the area of research that the doctoral candidate wants to pursue.</p> <p>The programme encourages students to continuously advance during the study, by prescribing the requirements for enrolment of higher years of study.</p> <p>For submission of the doctoral dissertation topic, student must present their research problem before the committee for the selection of the research problem and audience of doctoral candidates, and achieve at least 120 ECTS credits. The fulfilment of these conditions during enrolment of students in each semester (usually at the beginning of the academic year) is verified by the head of the study.</p> <p>Among the students that we spoke to, none had reached the stage where they had a definitive research proposal. We were told that the students generally finalize a proposal by the end of the first two years and then take the next three years to write the thesis. Most students take five years to complete the PhD.</p> <p>As the majority of students do not have a supervisor until near the end of the second year, the Panel recommends that students submit a proposal before they start the program, in an attempt to enable students to successfully complete their thesis earlier. This proposal can also be used in the application and selection process.</p>
<p>3.5. The HEI ensures that interested, talented and highly motivated candidates are recruited internationally.</p>	<p>Improvements are necessary</p> <p>Despite the international orientation of the programme, the number of international PhDs who are enrolled or who have graduated is low.</p> <p>Practically all dissertations are written in Croatian (with a summary in English). To date, there has been one English dissertation.</p> <p>Unlike most other programmes and universities, the PhD programme in Osijek is conducted in English and the students are given the option to publish their thesis in</p>

	<p>English, the majority of students do not yet opt for writing and publishing in English.</p> <p>We did not encounter any specific programs or actions to attract candidates internationally.</p> <p>It is recommended that the programme together with the Faculty and University take further initiatives to attract international students, and continue to introduce more internationally-oriented courses and bring in foreign faculty members for guest lectures.</p>
<p>3.6. The selection process is public and based on choosing the best applicants.</p>	<p>Improvements are necessary</p> <p>Admission to the programme is public and directed at attracting high quality students.</p> <p>According to the Study Programme, postgraduate doctoral study can be enrolled by persons who have completed appropriate studies, with an average grade at undergraduate and graduate or pre-Bologna undergraduate study of 3.5 or more. Recommendations from university professors are also required, especially if the average grade of study is less than 3.5.</p> <p>The competition for admission of doctoral candidates is public. Conditions for enrolment are available on-line at: http://www.ices.hr/en/doctoral-program/.</p> <p>During meetings, it transpired that the students had to go through an interview process where both their motivation and research focus were examined. However, the research proposal did not form an explicit mandate of the application process. The Panel recommends that students submit a research proposal before enrolment which can also be used as the basis for part of the selection process. This should help in recruiting in even higher quality candidates.</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>High level of quality</p> <p>The selection procedure is transparent. The enrolment in the postgraduate study is carried out on the basis of a public competition announced by the Senate of the J.J. Strossmayer University of Osijek.</p> <p>The competition documentation is reviewed by the head of the study. The final decision on admission to the doctoral study is made by the University Council, on the proposal of the head of the study. The results of the competition are publicly announced on the webpage of the study www.ices.hr and applicants are individually informed about the results by electronic mail.</p> <p>Applicants have the right to examine the competition documentation, and the candidates that were refused are</p>

	<p>explained the reasons for the refusal.</p> <p>Conditions for enrolment are transparent and available on-line at: http://www.ices.hr/en/doctoral-program/.</p>
<p>3.8. There is a possibility to recognize applicants' and candidates' prior learning.</p>	<p>High level of quality</p> <p>Differentiated responsibility and obligations have been set for students who come from other disciplines. More courses are offered to them to get them up to the pace of the others.</p> <p>Due recognition is provided to students who come in with prior learning and expertise and flexibility is afforded with respect to the obligations they are to undertake under the programme.</p> <p>Doctoral students who have obtained a pre-Bologna university scientific master's degree on the basis of a two-year study programme achieve 60 ECTS credits, and students with a completed Bologna university specialist study programme achieve 30 ECTS credits when enrolling in the doctoral 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>Doctoral candidates' rights and obligations are defined by the Study programme (Statute of the Josip Juraj Strossmayer University of Osijek).</p> <p>There exists a procedure to change supervisor.</p> <p>All students and alumni members stated that they were satisfied with the program.</p> <p>However, it is important that there is a formal agreement between the student and the University (in the form of a contract) in relation to the supervisory process. The Panel recommends that such a contract should be introduced.</p>
<p>3.10. There are institutional support mechanisms for candidates' successful progression.</p>	<p>High level of quality</p> <p>The programme offers institutional support for candidate's research and career development.</p> <p>The Faculty of Economics in Osijek is the organiser/co-organiser of international conferences such as the Croatian Operational Research Conference, conference Business Logistics in Modern Management and conference Economy of Eastern Croatia – Vision and Growth.</p> <p>The Faculty is the co-publisher of the Croatian Operational Research review journal.</p> <p>The most important support is that doctoral study has provided access to databases for research work to all doctoral candidates.</p> <p>Every year since 2013, the University has been conducting an internal competition for the submission of scientific-</p>

	<p>research and art projects, which are financed with the funds from the University's Business Fund. Programmes of the competition are related to topics of special interest for the University, in accordance with the University's Strategy.</p>
4. PROGRAMME AND OUTCOMES	
<p>4.1. The content and quality of the doctoral programme are aligned with internationally recognized standards.</p>	<p>Improvements are necessary</p> <p>This is a unique inter-disciplinary programme (in Croatia) crafted by a group of passionate Faculty members led by Prof. Singer. Much effort has been put into the design of the programme, which took place in close cooperation with international partners (e.g. Durham, Turku, Maribor, and Klagenfurt). The programme is therefore closely aligned with international standards. With English as the medium of instruction for many of the courses in this programme (which is exceptional for higher education in Croatia), this programme clearly aligns itself with other international programmes.</p> <p>The selection of candidates may have been looser at its inception, but the Faculty has now recognized that high quality students are crucial for the success of the program. The Panel recommends that the Faculty continually monitors the quality of students and suggests that as part of the application process a research proposal is submitted.</p>
<p>4.2. Programme learning outcomes, as well as the learning outcomes of modules and subject units, are aligned with the level 8.2 of the CroQF. They clearly describe the competencies the candidates will develop during the doctoral programme, including the ethical requirements of doing research.</p>	<p>High level of quality</p> <p>As stated in the Self Evaluation Report, programme learning outcomes are defined in accordance with CroQF level 8.2, which requires at least three years of scientific research and international publications.</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>Programme outcomes are clearly reflected in the teaching programme and supervision of research. There is a clear connection between learning outcomes and the various courses on offer.</p> <p>The programme stands out with its genuine commitment to inter-disciplinary teaching as evidenced by team-taught courses (remarkable efforts in any international university and more so in Croatia). Its emphasis on team-taught courses also allows faculty to know learning outcomes in other courses and also tailor innovative interdisciplinary curriculum.</p>

	<p>However, there is some concern that when a significant number of mandatory courses are taught by faculty members from foreign universities, which is shared by the Panel. The Panel therefore recommends that the programme should ensure continuity of mandatory courses taught. Also, the programme has several experienced faculty members (which is valuable), but the Panel recommends that the Faculty should ensure that there are adequate younger faculty members for continuity of teaching/supervision as some of the older faculty members are due to retire soon.</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>High level of quality On the basis of the sample of theses provided, candidates have shown to have acquired the competences required at the level 8.2 of CroQF. However, the Panel recommends that students should be stimulated to steer their publications more in the direction of internationally peer-reviewed journals.</p>
<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>	<p>High level of quality Teaching methods chosen were appropriate for achieving set learning outcomes. Students reported that courses were generally helpful (a mix of qualitative and quantitative) for both research and applied work.</p>
<p>4.6. The programme enables acquisition of general (transferable) skills.</p>	<p>High level of quality The programme also teaches sufficient skills for communication and critical discussion which are broadly applicable.</p>
<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>	<p>High level of quality The programme offers a variety of elective courses, besides close supervision, that are flexible and adapted to the needs and research plans of students. Several examples of individualized plans of doctoral candidates were provided as evidence for such possibilities (and student feedback supported this).</p>
<p>4.8. The programme ensures quality through international connections and teacher and candidate mobility.</p>	<p>High level of quality The programme visibly benefits from its international orientation which positively impacts its quality. The programme is conducted in English and attracts students from neighbouring countries for the PhD and other countries (e.g. Armenia) as short term visiting students. This provides some international exposure even within the program. Several partner institutions and instructors come from foreign universities (including the US and UK).</p>

	<p>The programme resulted from the TEMPUS joint European Project and the agreement with international partners allows for mobility of doctoral candidates between all partners. Although in practice, we see very few external visits by doctoral students (only one student participated in a summer school at Durham Business School). We would encourage the programme to informally support student travel for short term stays with partner universities.</p> <p>The Panel also recommends that more dissertations should be written in English (so far only one).</p> <p>The programme allows for inter-university credit transfers among partner universities, which furthers the possibility of mobility for PhD students.</p>
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*** NOTE: RECOMMENDATIONS OF THE EXPERT PANEL TO THE ASHE'S ACCREDITATION COUNCIL AND QUALITY LABEL**

The role of the Expert Panel in the re-accreditation of doctoral study programmes is manifold. The Expert Panel or part of the Expert Panel visiting a higher education institution drafts a report on the basis of a self-evaluation report, the accompanying relevant documentation, and a site visit to HEI. The draft report is adopted by all members of the Cluster Expert Panel, while the president of the Cluster Expert Panel is responsible for coordinating the assessment levels.

The report contains an assessment on whether a doctoral study programme delivered at a higher education institution complies with the prescribed laws and by-laws, as well as any additional/recommended requirements defined by the Agency's Accreditation Council, and whether a higher education institution can obtain a positive, i.e. satisfactory quality assessment according to the criteria set out in this document. Moreover, the Expert Panel must make recommendations for quality improvement.

Based on the assessment of all these elements, the Expert Panel may propose to the Accreditation Council of the Agency to issue either a confirmation on compliance, a letter of expectation for the period up to three (3) years in which period the higher education institution should eliminate the identified deficiencies, or to deny the license.

If the Expert Panel has assessed that a doctoral study programme delivered by a higher education institution does not meet legal and other requirements or that the quality of a study programme is not ensured (i.e. that HEI does not meet additional requirements or recommendations made by the Accreditation Council, or has a very poor quality assessment), they should propose to the Accreditation Council to deny the license.

If the Expert Panel considers that the relevant laws and bylaws have been met by a higher education institution, but that certain elements mentioned above do not meet the quality requirements, while they consider that the identified shortcomings can be corrected within a time frame of three years, they should issue a letter of expectation.

If the Expert Panel considers that all legal and additional/recommended requirements have been met and the quality assessment is satisfactory, i.e. that a study programme fulfils the learning outcomes appropriately defined for that level and scientific area, they may propose the issuance of a certificate and have a HEI commit to quality improvement and reporting to the Agency during the follow-up period.

Finally, if the Expert Panel has, in accordance with the criteria mentioned above, proposed issuing the certificate of compliance and assessed that, in addition to meeting the minimum quality requirements – i.e. the qualification framework level - for a study programme, the programme should be identified as a doctoral programme of a 'High Level of Quality', the Expert Panel may propose to the Agency's Accreditation Council that such a doctoral study programme be awarded the 'high quality label'. Thus the Agency, with the consent of the Accreditation Council, grants a higher education institution the right to use the label for their academic and promotional purposes.

The 'high quality label' cannot be proposed or awarded to a programme or a higher education institution that does not comply with the requirements laid down by the laws and bylaws mentioned

in this document, and any additional requirements recommended by the Accreditation Council. Moreover, the quality assessment awarded to a study programme should reflect a High Level of Quality inasmuch that at least half of the sub-criteria in each of the quality assessment criteria are assessed as being of high quality. The Accreditation Council of the Agency issues a final opinion on the label awarded. The content and form of the quality labels shall be prescribed by the Agency in a relevant general act.

The Accreditation Council of the Agency discusses the final report with all recommendations and suggestions, and issues their opinion on the report. Based on a prior opinion of the Accreditation Council, the Agency issues an Accreditation Recommendation to the minister responsible for science and higher education, and upon receipt of the minister's final decision on the outcome of the procedure, awards the 'high quality label' to a higher education institution.