Report of the Expert Panel on the Reaccreditation of the University Postgraduate (Doctoral) Programme *PSYCHOLOGY* UNIVERSITY OF ZAGREB FACULTY OF HUMANITIES AND SOCIAL SCIENCES

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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 Psychology on the basis of the Self-Evaluation Report of the Programme, other documentation submitted and a visit to the Faculty of Humanities and Social Sciences , University of Zagreb.

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:

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- President of the Expert Panel: Prof. Nihad Bunar, Stockholm University, Sweden
- Dr. Rachel Shanks, University of Aberdeen, United Kingdom
- Prof. Juana M. Sancho Gil, University of Barcelona, Spain
- Prof. Rachel Msetfi, University of Limerick, Ireland
- Dr. Matthew Schuelka, University of Birmingham, United Kingdom
- Prof. Bosse Bergstedt, Lund University, Sweden
- Justīne Vīķe, Rīga Stradiņš University, Latvia
- Ieva Bloma, European University Institute, Italy
- Prof. Annekathrin Schacht, Georg-August-Universität Göttingen, Germany
- Prof. Cathy Craig, Queen's University Belfast, United Kingdom
- Dr. Michel Raymond Denis, Centre National de la Recherche Scientifique, France
- Prof. Thomas Morton, University of Exeter, United Kingdom
- Dr. Hrvoje Stojić, London School of Economics and Political Science, United Kingdom.

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

- Dr. Michel Raymond Denis, Centre National de la Recherche Scientifique, France
- Prof. Annekathrin Schacht, Georg-August-Universität Göttingen, Germany
- Prof. Cathy Craig, Queen's University Belfast, United Kingdom
- Prof. Thomas Morton, University of Exeter, United Kingdom

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

• Marina Matešić, coordinator, 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,
- Alumni.

The Expert 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: Doctoral Degree Program in Psychology Institution delivering the programme: University of Zagreb

Institution providing the programme: University of Zagreb, Faculty of Humanities and Social Sciences

Scientific area and field: 5. Social sciences / 5.06. Psychology

Place of delivery: Faculty of Humanities and Social Sciences, University of Zagreb Number of doctoral candidates (all): 79

Number of HEI funded doctoral candidates (assistants employed at that or another HEI or institute): 22

Number of self-funded doctoral candidates and employer-funded doctoral candidates: 33 self-funded, 14 employer funded

Number of inactive doctoral candidates (did not enrol in a higher year of study but still have the right to study): 10

Number of teachers at the doctoral study programme: 37

Number of supervisors available: 33

Number of doctoral candidates to whom a supervisor was officially appointed: 22 (and 16 supervisors)

Taught (courses) / research ratio (in ECTS): 39-41/135-143

Taught component: 2 mandatory modules (each 9-12 ECTS), and 2 elective modules (also each 9-12 ECTS), according to SER, this totals to 39-41 ECTS in instructional content (21%).

Research component: 45 ECTS for dissertation work, 24 ECTS for other research activities (proposal defense, research methodology exam, etc.), 9 ECTS for supervision meeting, and 14 ECTS for compulsory research activities, remaining points are collected through various scientific, professional and teaching activities (between 43 and 51 ECTS).

Learning outcomes of the study programme (as stated in SER):

LO 1: critically uses scientific literature to get acquainted with theoretical concepts and empirical research in the area of interest

LO 2: analyses methodology used in the field in relation to its validity and feasibility

LO3: defines relevant research questions in the area

LO4: poses theoretically based and clearly elaborated hypotheses

LO5: suggests potential research designs for answering relevant theoretical and practical issues in the area

LO6: uses complex exploratory and confirmatory statistical methods for data analysis

LO7: critically uses and interprets empirical data in relation to its theoretical and practical implications

LO8: formulates oral and written presentations of knowledge in the area

LO9: presents results of empirical research in a clear and structured manner

LO10: elaborates the social and practical value of a scientific approach in solving current issues

LO11: plans and conducts domestic and international research projects

LO12: applies ethical principles when planning and implementing scientific research and analyses the ethical dilemmas and risks associated with the research conducting.

#### **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 confirmation on compliance for performing parts of activities (renew the licence)

#### **RECOMMENDATIONS FOR THE IMPROVEMENT OF THE STUDY PROGRAMME**

- 1. A reflection should be developed on the value of maintaining the quota of doctoral students within limits nearing the ratio observed in other European countries between the number of students registered in undergraduate/graduate degrees and the doctoral degree.
- 2. An objective of the Programme should be to have a smaller number of candidates, but a larger number of fully-funded students.
- 3. Effort should be developed for training in terms of more general (transferable) skills, or skills that would prepare the students for jobs outside of academia.
- 4. The teachers/supervisors should demonstrate more sustained effort in helping students to develop awareness of internationalization in scientific research.
- 5. The thesis defence should not happen so late within what should be a three-year programme of full time research.
- 6. Students should be encouraged to adopt the Scandinavian model to thesis submission, based around three papers that can be in preparation or published.

#### ADVANTAGES OF THE STUDY PROGRAMME

- 1. Communication with the head of the Programme and with supervisors is transparent and works quite well.
- 2. A significant number of teachers/supervisors have citation rates that reflect a high potential.
- 3. The supervisor:student ratio of 1:2 ensures a good quality of supervisory monitoring and conduct of doctoral work.
- 4. Mechanisms for checking and monitoring the qualifications of teachers/supervisors are brought into play at the University level.
- 5. There are funds and other mechanisms of support available within the Department to support students to do their research and widen their skills and experiences through international activities.

#### DISADVANTAGES OF THE STUDY PROGRAMME

1. Too many students are self-financing and cover their own tuition fees and research costs (such as attending conferences).

- 2. Too few doctoral candidates are financed by employers in the business sector. Insufficient efforts are conducted to seek funding outside the academia.
- 3. Different kinds of support are not equal across all students. There is a risk for students who are self-funded or working for external companies to be in a relatively difficult situation to benefit from the career development and training opportunities that are available to others who are funded and work in the institution.
- 4. Students have the feeling that some elective courses do not meet their training needs and take them away from doing more research.
- 5. There is insufficient demonstration of a strategy intended to establish research connections between psychology and cognitive neuroscience.

#### **EXAMPLES OF GOOD PRACTICE**

- 1. The research activities of the doctoral programme are carried out in cooperation with several foreign institutions in the form of joint research projects.
- 2. Efforts are developed to attract good candidates from neighboring countries.
- 3. In general, the assignment of supervisors cannot exceed three candidates.
- 4. Standard ethical requirements for research are being applied.
- 5. Quite valuable is the opportunity given to candidates from other disciplines to enrol in the doctoral programme in psychology.

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

Minimal legal conditions:	YES/NO notes
1The Higher education institution (HEI) is listed in the Register of	YES.
Scientific Organisations in the scientific area of the doctoral study	
program and has a positive reaccreditation decision (permission) for	
scientific and higher education activities.	
2. HEI delivers programmes in the two cycles leading to the doctoral	YES
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).	
3. HEI employs a sufficient number of researchers, as defined by Article	YES
7 of the the Ordinance on Conditions for Issuing Licence for Scientific	
Activity, Conditions for Re-Accreditation of Scientific Organisations and	
Content of Licence (OG 83/2010).	
4. At least 50% of teaching as expressed in norm-hours is delivered by	YES
teachers employed at the HEI (full-time, elected into scientific-teaching	
titles).	
5. Student: teacher ratio at the HEI is below 30:1.	YES
6. HEI ensures that doctoral theses are public.	YES
7. HEI launches the procedure of revoking the academic title if it is	YES
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.	
Additional/ recommended conditions of the ASHE Accreditation	YES/NO (notes)
Council for passing a positive opinion	
1. HEI (or HEIs in joint programmes) has at least five teachers	YES.
appointed to scientific-teaching titles in the field, or fields relevant for	
the programme involved in its delivery.	
2. In the most recent reaccreditation, HEI had the standard Scientific	YES
and Professional Activity marked as at least "partly implemented" (3).	
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.	YES
5. All supervisors meet the following conditions:	a) YES
a) PhD, elected into a scientific title, holds a scientific or a scientific-	b) YES (with one
teaching position and/or has at least two years of postdoctoral	exception).
research experience;	c) YES during the
b) active researcher in the scientific area of the programme, as	programme, but NO
evidenced by publications, participation in scientific conferences	upon admission. No

	1 1.
and/or projects in the past five years (table 2, Supervisors and	research proposal is
candidates);	required upon
c) confirms feasibility of the draft research plan upon admission of the	admision. No
candidate (or submission of the proposal);	confirmation of
d) ensures the conditions (and funding) necessary to implement the	feasibility takes
candidate's research (in line with the draft research plan) as a research	place upon
project leader, co-leader, participant, collaborator or in other ways;	admision.
e) trained for the role before assuming it (through workshops, co-	d) YES for
supervisions etc.);	supervisors with
f) received a positive opinion of the HEI on previous supervisory work.	project activity.
	Some supervisors
	have no project
	activity.
	e) YES
	f) Before 2015 NO;
	from 2015, YES
6. All teachers meet the following conditions:	a) YES
a) holds a scientific or a scientific-teaching position;	b) YES (mostly high
b) active researcher, recognized in the field relevant for the course	activity in the last 5
(table 1, Teachers).	years, with one
	exception)
7. The supervisor normally does not participate in the assessment	NO
committees.	
8. The programme ensures that all candidates spend at least three	YES but see
years doing independent research (while studying, individually, within	recommendations
or outside courses), which includes writing the thesis, publishing,	under 2.6, 4.2, 4.4,
participating in international conferences, field work, attending	4.5, and 4.7.
courses relevant for research etc.	noj una mi
9. For joint programmes and doctoral schools (at the university level):	Not applicable
cooperation between HEIs is based on adequate contracts; joint	not applicable
programmes are delivered in cooperation with accredited HEIs; the HEI	
delivers the programme within a doctoral school in line with the	
regulations and ensures good coordination aimed at supporting the	
candidates; at least 80% of courses are delivered by teachers employed	
at HEIs within the consortium.	

## **QUALITY ASSESSMENT**

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.	HIGH QUALITY Teachers in the Department of Psychology are both leaders and researchers in a number of projects. In addition to local or national ones, they are involved in a total of 17 international projects. The research activities of the doctoral programme are carried out in cooperation with several foreign institutions (in the form of joint research projects and programmes). Five teachers of the doctoral programme have been awarded Fulbright scholarships and three Erasmus contracts have benefitted to students of the programme. It is worth noting that members of the Department of Psychology are editors of the journal "Review of Psychology" (with an international Editorial Board) and that the Department, along with the Croatian Psychological Association, is in charge of organizing an international psychological scientific meeting (the Ramiro and Zoran Bujas Days), which has been held every two years for four decades.
1.2	. The number and workload of teachers involved in the study programme ensure quality doctoral education.	HIGH QUALITY The teaching staff at the doctoral degree programme comprises 37 members (24 of them are members of the Department of Psychology, and the remaining 13 are from other institutions, such as the Universities of Split, Zadar, and Gothenburg). Based on the data available in Table 1, the total number of NH for the doctoral programme amounts to 1390, with an average per teacher of 37 NH, with wide variations (from 15 to 180). This workload is very high and comes in addition to the still higher number of NH devoted to the teaching at undergraduate and graduate levels (9485) and in other institutions (1606). The figures describing the involvement of teachers in the programme (number of teachers and workload) are taken as guaranteeing high involvement of Psychology.

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	HIGH QUALITY
1.3. The teachers are highly qualified researchers who actively engage with the topics they teach, providing a quality doctoral programme.	Based on Table 1, the overall number of papers classified "A" is 494, for a total of 37 teachers who are contributing to the doctoral programme (average per teacher: 13.4). Six teachers report a production of 21-31 papers, that is, 4-6 papers/year. Seven teachers of the programme have high GS citation rates (above 1000), and accordingly high GS H- indexes (11-22). These figures reflect a potential which comes to the benefit of students registered in the doctoral programme.
	HIGH QUALITY
1.4. The number of supervisors and their qualifications provide for quality in producing the doctoral thesis.	There is a total of 33 supervisors and a total of 69 doctoral students, which represents a Supervisor:Student ratio of about 1:2. This ratio corresponds to the recommendations of the University of Zagreb. It ensures a good quality of supervisory monitoring and conduct of doctoral work and should be maintained almost as it is. Note that four teachers are supervisors of 5 students, one of 6 students, one of 7 students, and two of 8 students. A more balanced distribution of supervisors should be encouraged. Altogether, the supervisors have published 455 articles, which represents an average number of 13.8 articles per supervisor (a similar value to the one for the whole set of teachers).
	HIGH QUALITY
1.5. The HEI has developed methods of assessing the qualifications and competencies of teachers and supervisors.	Mechanisms for checking and monitoring the qualifications of supervisors and teachers have been established and developed at the University level. According to SER, evaluation of the scientific outcome of each supervisor is ensured by the procedure prescribed in the Ordinance on Elections into Scientific and Teaching Titles. This evaluation takes place every 5 years. In addition, students enrolled in the programme have to include at least 5 papers relevant to the submitted dissertation topic that have been published by the suggested supervisor within the last 5 years. In this way, inactive scientists are prevented from acting as supervisors.
	There is further a Committee for Quality Assurance at the Faculty level that conducts an annual survey of teachers'

	work completed by both the teachers and students. These data are analysed by the head of the Programme and transferred to the Council for Doctoral Studies concerning any perceived need for quality improvement. In the case of identified difficulties in teaching or supervisory work that could affect the quality of the study, the teacher/ supervisor is warned and, in the absence of correction, the teacher/supervisor would be excluded from the programme.
	IMPROVEMENTS NECESSARY
1.6. The HEI has access to high-quality resources for research, as required by the programme discipline.	The Faculty of Humanities and Social Sciences has a modern library with a large collection of catalogued monographs. In addition, it offers a large number (130) of PC workstations that enable web-based and catalogue searches. Students have access to several e-journal databases, including some of the most relevant literature resources. During the site visit of the programme, some laboratory facilities were demonstrated by current students to the committee. Unfortunately, these facilities did not appear at internationally comparable standards. Since laboratory equipment is the most important resource for the completion of research-oriented dissertations, the panel recommends investments in the structural and technical equipment of existing laboratories that indispensibly requires the support at the level of the Faculty or
2. INTERNAL QUALITY ASSURANCE OF	University.
THE PROGRAMME	IMPROVEMENTS NECESSARY
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.	From the self-evaluation report it would appear that the doctoral programme in Psychology was proposed and approved in accordance with the University of Zagreb rules for proposing, approving and delivering doctoral education. What is unclear is how the Faculty procedures for proposing and accepting programmes that are submitted to the University of Zagreb also fit in. Going forward the idea of having a single Graduate School for the whole HEI would help resolve some of the issues associated with programme approval and also address some concerns around interdisciplinarity and

		generalizable doctoral training (intersectoral) (see section 4.1). It is unclear how scientific/artistic, cultural, social and economic needs are identified and met through the programme. There is a role for a programme steering group that contains external stakeholders to ensure the programme is dynamic and responsive to change.
2.2.	The programme is aligned with the HEI research mission and vision, i.e. research strategy.	<b>IMPROVEMENTS NECESSARY</b> The panel appreciates the effort the department has made in making available its own research plan for the doctoral programme. Particular attention should be paid to internationalisation, interdiciplinarity and innovation in research methods. It is important that there is a clear action plan for how these three pillars will be delivered through the doctoral programme and how they in turn will raise the quality of the research. Note that the focus on encouraging students to publish is very welcome but appears at odds with what we heard from students. This 'rule' or confusion around what can and cannot be published before the thesis defence needs to be looked at. Also rules around career advancement that penalise co- authorship will be very harmful to attempts to internationalise the programme and develop more interdisciplinary approaches to the research which by definition results in a greater number of co-authors.
2.3.	The HEI systematically monitors the success of the programmes through periodic reviews, and implements improvements.	IMPROVEMENTS NECESSARY The programme underwent the periodic international and/or domestic review in 2014. Minimal changes were recommended and incorporated into the implementation of the study programme. No details on what those changes were or how they were implemented have been provided for the panel. An additional monitoring of the scientific production of supervisors and students is conducted. It is important that outputs relating from the programme are made available to help judge quality of the scientific research being carried out. The ambiguity around what can be published when should be resolved. Students should be encouraged to adopt the Scandinavian model to thesis submission that is based around 3 papers that can be in preparation or published. The research outputs of the programme, along with where the alumni are employed are important measures of quality that should be reviewed on a regular

		basis.
		HIGH QUALITY
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.	Students are required to assess their supervisors on a yearly basis. This appears to be implemented. In discussion with the students, the efficacy of this approach to truly assess quality was questioned by the students who felt compromised when completing such questionnaires. A more objective measure of supervisory input can be obtained through records of supervisory meetings and annual monitoring of a student's progress in the programme (particularly around the advancement of the research and ensuring that this is progressing according to the research plan).
		The majority of students are very happy with their supervision and feel very supported by their supervisor. Only a very small number expressed concerns around the facility with which they could change supervisors. Also students were not aware of any procedures outside of the department for resolving supervisory disputes.
		HIGH QUALITY
2.5.	HEI assures academic integrity and freedom.	The Department, Faculty, and University all have ethics committees, and all student research is subject to ethical approval prior to being conducted. As such, it is clear that standard ethical requirements for research being applied. The department makes use of Turnitin software to detect plagiarism, has policies and procedures for disciplining students, and systems in place for revoking degrees when ethical principles have been violated in the conduct or presentation of the research. The official principles of the university, faculty and department value academic freedom, and it is clear that staff and students feel free to pursue research topics independent of censorship.
		IMPROVEMENTS RECOMMENDED
2.6.	The process of developing and defending the thesis proposal is transparent and objective, and includes a public presentation.	The Department and Faculty have clear procedures, which are publicly available. Although the PhD topic and thesis defence committees include an external member, it is not clear from the SAR whether the member is external to the institution, or simply from outside the Faculty. The SAR states: <i>"In principle, the committee for the evaluation of the</i> <i>dissertation topic is the same committee who followed the</i>

	student during his or her studies, in which the supervisor cannot be the president of the committee and one member must be a scientist employed outside the Faculty of Humanities and Social Sciences." The documentation online suggests that external members are external to the institution, but this needs to be clarified and confirmed. The specific wording of the online documentation is "one member must be a so-called external member, or a researcher from outside the home institution that is the head of a doctoral study program". The "so-called" and "or" create ambiguity about exactly who this person is. In addition, although the supervisor cannot be the chair of the evaluation committees, it seems that they nonetheless can be a member of it. As such, evaluation processes could have more safeguards for objectivity/independence built into them.
	Defences are conducted publicly and awarded theses are supposed to be made publicly available by being submitted to the institutional repository. However, based on discussions with library staff, it seems that only a fraction of submitted/awarded PhD theses have been made available in this way. This should be checked and addressed if it is an issue.
	Although this may not compromise transparency and objectivity, the defence of PhD theses is, in the view of the panel, happening too late within what should be a 3 year programme of full time research. Proposals seem to be typically approved only within the second year, leaving only 1 year for the PhD research. Inspection of the theses produced by former students also suggested that the amount of research and overall contribution was a bit light relative to what would be expected from 3 years of PhD level research elsewhere in Europe. Indeed, the documentation provided also suggests that the actual research that constitutes the PhD is largely taking place within the final year of the programme.
	IMPROVEMENTS RECOMMENDED
2.7. Thesis assessment results from a scientifically sound assessment of an independent committee.	Thesis defences are public, and notification of a defense is given publicly in advance. A record of the defence is submitted afterwards, although it is not clear whether this is a complete minuting of the evaluation committee's questions and the candidate's responses or just

		summarising the overall evaluation.
		The evaluation committee comprises an uneven number (I assume to avoid tied evaluations), and includes an external member. However, as noted above, it is not clear whether the external member is external to the institution or simply external to the faculty. In addition, although the supervisor cannot chair the defence committee, it seems that they can be a member of it. Although external academics are appointed to PhD defence committees, it is not specifically stated whether these are international. The panel assumes that they could be, but in practice perhaps are not. From the outside, therefore, it is unclear whether there are sufficient checks on the objectivity and independence of the evaluation committee and their decisions. The committee is clearly not fully independent of the context within which the thesis was made (i.e., departmental and institutional context).
		IMPROVEMENTS NECESSARY
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.	All necessary information appears to be accessible online, and there also appears to be good communication between the programme directors and the students. In addition, most of the information about the programme appears to be available in English. However, certain pieces of information could not easily be found by English speakers, for example the requirements and procedures for entry into the programme. Clear information about how to apply, and about the minimum entry requirements, in English and accessible online would be a further improvement. While that information might be available in the Croatian documents (in which case translation will be straightforward), to increase the visibility and accessibility of the programme to international markets, English language documents are important.
		IMPROVEMENTS NECESSARY
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).	A clear income/expenditure model should be developed that clearly shows spend per student. Costs of delivering the programme should also be reviewed. Tensions between putting on additional courses or courses with low numbers of students and paying for staff time may not be the best use of resource. A review of value added in terms of attending classes (compulsory and elective) versus time spent in the lab carrying out experimental work should be

	considered. Given the restricted financial landscape these factors should be reviewed at an institutional level with clear financial models adopted across doctoral training programmes. Adopting a Graduate School model for more transferable skill training will drive efficiencies in terms of the cost of delivery. Also the resourcing of lab facilities needs to be reviewed so that the research environment offers students the opportunity to carry out cutting edge research. For example, our visit to a research lab clearly highlighted that eye movement recording equipment would add significant scientific value to the experimental work being conducted. This equipment is not very costly and could add significant value to the programme. A clear strategic plan of investment in equipment should be developed with Faculty. It is important that students can collect multiple streams of data that help them truly understand and draw more robust conclusions about the behaviours they are measuring. Furthermore, discussions with the Dean suggested that more students do not result in a lower fee but more studentships per department (maybe two instead of one). The allocation of studentships based on these principles needs to be clearly signposted and the allocation of awards should be based on excellence (advertised nationally and internationally).
2.10. Tuition fees are determined on the basis of transparent criteria (and real costs of studying).	<b>IMPROVEMENTS NECESSARY</b> The criteria used to determine the tuition fees are not clear. It would appear the fee is determined by the cost of delivering the programme. Administrative programme support, tuition and supervision costs need to be recuperated from the fee charged to the students. It is unclear what other indirect costs may also be applied (e.g. access to library, laboratory resources, IT support, software packages etc). The panel's understanding is that the cost model for determining fees, along with the need to pay supervisor's for their time spent on the programme, introduces a certain number of tensions that could compromise quality. Care needs to be taken in balancing up student intake (and quality of students) with the number of courses offered (and the number of students enrolled on each course). On reviewing the data it would appear that some elective courses have very low numbers which means the cost of delivering this teaching is high.

	Furthermore, it is unclear how supervisions costs are factored in. Is it determined by contact hours reported or by a fixed amount? A review of the taught training provisions should take these points into consideration. For example, if some material is the same as Masters, why don't those students from different disciplinary backgrounds attend those classes. This would help reduce cost. What is recommended is the development of a more effective, but efficient training programme adapted to the needs of the students. The funding model in general should be reviewed to remove the temptation of bringing more students onto the programme to generate income. The percentage of students doing a PhD compared to the undergraduate body of students, is much higher than comparable universities elsewhere in Europe.
3. SUPPORT TO DOCTORAL CANDIDATES AND THEIR PROGRESSION	
3.1. The HEI establishes admission quotas with respect to its teaching and supervision capacities.	HIGH QUALITY For each generation of doctoral students, an enrolment quota is determined by the Faculty of Humanities and Social Sciences, based on the recommendation of the Council for Doctoral Studies in Psychology. In order to determine the quota, the Council takes into account the availability of supervisors. In doing so, the teaching and supervising load of individual teachers are considered. In general, the assignment of supervisors cannot exceed three candidates, but this limit may be reconsidered when current students of a potentlal supervisor are nearing the end of their doctoral study. As a matter of fact, several exceptions are noted (see above, under 1.4). The Council for Doctoral Studies in Psychology is invited to develop a reflection on the value of maintaining the quota of doctoral students within limits nearing the ratio observed in other European countries between the number of students registered in undergraduate/graduate degrees and the postgraduate (doctoral) degree.
3.2. The HEI establishes admission quotas on the basis of scientific/ artistic, cultural, social, economic and other needs.	<b>HIGH QUALITY</b> Nearly all the holders of doctoral degrees from the University of Zagreb are said to be employed in Croatian and foreign academic institutions, social and medical

	research institutes, governmental and civil organizations, the business sector, and hospitals and institutions for mental health care. This situation suggests that the number of doctoral degrees delivered by the University of Zagreb fits the needs of the institutions and organizations that need professionals with a doctoral degree in psychology. If this situation evolves in the future, specific measures should be taken to adjust the number of holders of doctoral degrees to the actual needs in the country. Quite valuable is the opportunity given to candidates from other disciplines to enrol in the doctoral programme in psychology. This is an initiative that contributes to make the scientific approach developed in psychology benefit to other professional fields.
	HIGH QUALITY
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.	The present situation is that 50% of doctoral students are funded by means of research projects, by other public institutions, and by employers from the business sector. The remaining students are self-financing and cover their own tuition fees and research costs (such as attending conferences). The heads of the Doctoral Programme aptly claim that although self-funding may remain a possibility in the future, this nevertheless should be "an exception". This is a big challenge to be addressed by the Doctoral Programme, which should be a major component of the strategic plan of the Faculty. But there is no alternate choice, especially in the European context, where the practice of students' self-funding is not acknowledged in principle and, de facto, is not allowed by faculties. Only 6% of the doctoral candidates are financed by employers in the business sector. It is essential to the strategy of the Faculty to approach companies of the private sector and convince them of the value of employing doctors in science. This requires a proactive and sustained
	approach on the part of the academic actors in the direction of companies outside the academic field.
3.4. The HEI should pay attention to the number of candidates admitted as to	HIGH QUALITY
	According to the rules specified by the Department of Psychology, students are required to choose a supervisor in accordance with their research interests and the availability of teachers. The supervisor has then to be

sustainable research plan and is able to complete doctoral research successfully.	confirmed by the Council of Doctoral Studies in Psychology. The role of supervisor can be taken by any teacher with a postgraduate degree in psychology, as selected and appointed by the Council of Doctoral Studies in Psychology for a given generation of applicants. The rules specify that a list of potential supervisors and research areas is announced for each new generation of students.
	Each student is appointed by a Supervisory Board of three teachers affiliated to the Doctoral Degree Programme and/or researchers from other institutions whose research qualifications are connected with the student's research subject.
	Requirements include individual tutorials with the supervisor, at least 15 hours per year, with the objective of early design and effective follow-up of a custom-made research programme. It is relevant here to mention that most of the doctoral students that the panel met with did testify for the availability and communication quality of their supervisors.
	Essential are the provisions to be taken to ensure sufficient and timely progression of the doctoral work, particularly in the case of part-time students. It is the supervisors' duty to help students to apply for research funding from appropriate sources.
	HIGH QUALITY
3.5. The HEI ensures that interested, talented and highly motivated candidates are recruited internationally.	The Department of Psychology publishes a call for applications to candidates and makes it available for two months. The call is published widely in daily newspapers and a number of websites, such as those of the Croatian Psychological Society and the Faculties of Humanities and Social Sciences (Zagreb, Zadar, Osijek, Mostar, and others). In order to attract good candidates from neighboring countries, the competition announcement is published as well in the websites of the psychological societies of Bosnia and Herzegovina, Montenegro, Macedonia, Serbia, and Slovenia.
	International recruitment remains limited, but the heads of the doctoral programme are aware of the value of developing efforts in this direction.

		In principle, the courses of the doctoral programme can be taught in English. Such a decision is made by the Council of the Postgraduate Degree programmes when candidates who cannot follow the classes in Croatian are enrolled.
	. The selection process is public and based on choosing the best applicants.	HIGH QUALITY When the call for applications is open, the applicants are informed of the three requirements that they must meet: completed graduate studies in psychology, two recommendations from university teachers, expression of interest on the part of a potential supervisor contacted by the candidate. A multi-step selection process is implemented, which includes consideration of the students' research interests and motivation, as well as their previous scientific achievements and the advices of the potential supervisor and the teachers who recommend the candidate. Those students passing this step have to complete an entrance examination, as well as an interview with a selection panel.
		In the last call for applications, the selection ratio for enrolment in the preparatory year was 1:2.4, which nevertheless results in a substantial number of doctoral students (relatively to the number of undergraduate students).
		An objective that would be beneficial to both the students and the programme is to have a smaller number of candidates enrolled, but a larger number of fully-funded students.
		IMPROVEMENTS NECESSARY
	The HEI ensures that the selection procedure is transparent and in line with published criteria, and that there is a transparent complaints procedure.	The selection criteria, and the process around this are communicated clearly online and available to applicants. There is also information available about supervisors and their current students available online for interested applicants.
		There is also a complaints process whereby those who are not selected for the programme can appeal and receive feedback about the decision. However, it is unclear how consistently this feedback/appeal process is applied, and the panel heard examples of students who requested feedback about their selection but were not adequately

	answered and no concrete feedback was given. As such, although the selection procedure seems open and transparent at a bureaucratic level, the actual experience of this by applicants seems to fall short. This should be investigated and rectified.
	IMPROVEMENTS NECESSARY
	Officially, applicant's and candidate's prior learning is recognised, and there are guidelines/processes to achieve this. Also, students not from psychology backgrounds are able to engage in a preparatory year in order to bridge to the Psychology Doctoral Programme, contingent on performance. This seems very positive, and students that have been able to do this valued it very much.
	In discussion with past and current students there was also evidence of a perceived lack of flexibility in the taught components of the programme, and the lack of recognition of prior training. Again, although in a bureaucratic sense there are systems to recognise prior learning, in practice this does not seem to be realised consistently.
3.8. There is a possibility to recognize applicants' and candidates' prior learning.	Overall, it was felt by the panel that there could be a lot more flexibility in the taught courses students were required to follow so that the training opportunities provided to students were more individually-tailored to their previous skills and learning and their needs in the PhD research they were planning to conduct or conducting. At present, it seems that the course offerings are made at the cohort level, and are therefore directed towards covering a wide variety of needs and meeting a minimal standard. But by a PhD level, training needs to be more individualised, rather than cohort-based, and accordingly more flexible. This need for flexibility included obligatory and elective courses provided by the department, as well as external training opportunities and courses that could address student needs more better. In particular, the elective courses were very variable in their perceived utility for students, and there was a feeling that many taught components were either duplication of previous learning or distractions from their actual PhD focus.
3.9. Candidates' rights and obligations are	IMPROVEMENTS NECESSARY
defined in relevant HEI regulations and a contract on studying that provides for a high level of supervisory and	There is clear communication of obligations and expectations of students on enrolment in the programme,

institutional support to the candidates.	and there is also annual monitoring of progress by supervisors. Reciprocally, students also evaluate supervisors annually. Overally, there was evidence of very positive relationships between students and supervisors.
	Although there are evaluation and monitoring systems in place, in practice students did not always feel comfortable evaluating supervisors via the annual process: in such a small cohort of people working on specific things – and often employed by the supervisor or department as well – anonymity is compromised, and there are realistic concerns that complaints would be personally identified.
	In addition, students did not seem to be aware of any conflict resolution or complaints process that they could access if they had concerns about supervision, other than talking to the programme director. Inevitably, there will be conflicts at some point between individual students and supervisors, and there have to be serious, impartial, and official processes through which students can make complaints and be heard. This needs to be investigated, and to the extent that these systems do, in fact, exist, they nonetheless need to be reviewed because students are either unaware of them or do not perceive them to be effective.
	IMPROVEMENTS NECESSARY
3.10. There are institutional support mechanisms for candidates' successful progression.	There are funds and other mechanisms of support available within the department to support students to do their research, but also to develop as researchers and widen their skills and experiences through international activities, like attending conferences and workshops. Students who accessed these kinds of supports found them useful and were grateful for the opportunities they were given.
	However, the ability to access funds, research opportunities, and different kinds of support are not equal across all students, and independent of their funding type and employment contracts. As such, there is a risk that students who are self-funded, or working for external companies, are not able to benefit from the career development and training opportunities that are available to others who are funded and work in the institution. This – in addition to the complications of balancing outside

4.	PROGRAMME AND OUTCOMES	work with PhD study – could threaten their progress, but also the overall quality of their PhD research and employability at the end. Enhancing access to funds to support research and training opportunities – and ensuring as much as possible the equality of access to these across student types – should be explored.
		IMPROVEMENTS NECESSARY
		The world of higher education is experiencing levels of unprecedented change, with doctoral education programmes being no different. With less than 50% of doctoral graduates in the US pursuing a career in academia, there is a strong need to ensure our doctoral training is adequately preparing students for a dynamic workplace that extends beyond academia.
4.1	. The content and quality of the doctoral programme are aligned with internationally recognized standards.	New international models of doctoral education are trying to do just this. Their focus is on the need to develop future leaders whose skills combine disciplinary excellence with a capacity for international, interdisciplinary and intersectoral working that creates genuinely disruptive thinkers. These programmes are designed to offer an innovative model of professional and scientific development that is proactively training researchers to be able to maximise the potential of these partnerships. Only by rethinking the current, competence-based skills training agenda so that it embraces intellectual flexibility and creativity can a programme prepare the leaders who will be equipped to respond to constantly shifting global challenges. Programmes are thus proposing the integration of disciplinary excellence with a meaningful reflection on the possibilities both of interdisciplinarity and of mobility across cultural, linguistic, professional and epistemological borders.
		This type of change cannot take place within one department. These types of changes have to be implemented at an Institutional level. The University of Zagreb should consider embracing the Graduate School model that will combine all its Faculties. This will ensure the interdisciplinary dialogues that underpin the new type of training can have a chance of succeeding. It also becomes the vehicle to communicate to the outside world the benefits doctoral training can have on both society and the

	wider economy.
	The current programme has a strong emphasis on discipline-specific classroom-based learning that is delivered in lectures and occasionally seminars. There is no evidence of training in terms of more generalizable skills or skills that would prepare the students for jobs outside of academia (see section 4.6). Adopting an approach to training that extends beyond the boundaries of the discipline will be important going forward to ensure that the programme is aligned with new thinking in doctoral education. A comprehensive review of training at an institutional level is required. The government should also consider adopting the Doctoral Training Programme (DTP) model across institutions that is currently being used by the research councils in the UK as a means of funding doctoral education and ensuring quality programmes.
	IMPROVEMENTS NECESSARY
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.	According to the SER, the learning outcomes of the programme have been developed in accordance with the Croatian Qualifications Framework Act (level 8.2). The course programme listed in the SER suggests that many of the courses (some of which are compulsory) impart content that would rather match the level of a typical Master's programme. This impression was also confirmed by the panel's discussions with doctoral students of the programme. The programme might consider to offer courses in a more flexible manner and to further include course formats that are research-oriented and that enable in-depth literature studies and critical reflections (e.g., journal club sessions, partly with international scientists).
	IMPROVEMENTS NECESSARY
4.3. Programme learning outcomes are logically and clearly connected with teaching contents, as well as the contents included in supervision and research.	Overall, the defined learning outcomes of the programme seem logically connected with teaching contents. As already outlined above (see 4.1 and 4.2), the students would massively benefit from course contents and formats that are better tailored to the needs of PhD students (e.g., small-group journal clubs instead of lectures). From the SER and general discussions with students and alumni, there is no structured opportunities to acquire more general (transferable) skills. This should include project management, entrepreneurship, innovation and leadership.

	Contents included in supervision and research match the research interests of the supervisors.
	IMPROVEMENTS NECESSARY
4.4. The doctoral programme ensures the achievement of learning outcomes and competencies aligned with the level 8.2 of the CroQF.	The panel was not satisfied with the PhD theses examined during the site visit, both in terms of quantity and quality. Although the dissertations did not show any fundamental deviations from the CroQF criteria, they do not meet the internationally established standards. In discussions with current PhD students and alumni as well as in the SER, the panel identified two potential key factors that could contribute to these shortcomings. Firstly, the extensive course programme makes it difficult to complete an appropriate (empirical) research work within three years' full time. Secondly, the panel would like to recommend the amendment of an established formal requirement for the submission of PhD theses, namely that an additional, separately published project should either not be a necessary precondition or integrated into the dissertation instead.
4.5. Teaching methods (and ECTS, if	IMPROVEMENTS NECESSARY
applicable) are appropriate for level 8.2 of the CroQF and assure achievement of clearly defined learning outcomes.	As outlined in the points above, the programme might consider a number of adjustments to the course programme, that should also include teaching methods (see our suggestions made under 4.1-4.3)
	IMPROVEMENTS NECESSARY
4.6. The programme enables acquisition of general (transferable) skills.	Through our examination of course content and discussion with students, alumni and stakeholders, it became apparent that more transferable skills needed to be included in the programme. These should not be additional courses but should be instead of some of the elective courses. Doctoral programmes (particularly European, e.g., COFUND) all emphasise the need to include the acquisition of more general skills. This should include project management, entrepreneurship, innovation and leadership. The delivery of the content of these courses is beyond the scope of the psychology department but should be incorporated into the training provided by the Graduate School model proposed by Faculty. Having these courses delivered through the Graduate School provides an opportunity to bring together students from different disciplinary backgrounds, which creates a fertile ground

	for discussion and invites interdisciplinary dialogue. The educational gain from these experiences is invaluable for the student's development. Students who have ambitions to pursue a career in research requested more information on how to apply for research funding. To be internationally competitive the PhD students need to be aware of what sources of research funding are available (e.g. fellowships, post-doc funding abroad) and what it takes to make a successful application. The panel was very conscious of the fact that not publishing thesis data until after the PhD is completed will put the students at a serious disadvantage to their peers who will have completed doctoral training in other countries with different models/rules around thesis format. Finally the new Graduate School should also provide the students with more information around employability and help them write academic and non-academic CVs. Some alumni complained they had difficulty communicating the value of doing a PhD to future employers. Again this 'education' of employers needs to be instigated at Departmental, Faculty and University levels.
4.7. Teaching content is adapted to the needs of current and future research and candidates' training (individual course plans, generic skills etc.).	<b>IMPROVEMENTS NECESSARY</b> Students, alumni and stakeholders all appeared very happy with the quality of the methods training provided by the department. There was wide appreciation for the expertise of supervisors in the areas of methods, experimental design and psychometrics. Although these courses are compulsory, there is a need to recognise prior learning and allow students to abstain from the classes if they already have the competencies. Some students complained of duplication of content between Masters and PhD courses. The greatest dissatisfaction was around the elective courses. Students complained that some elective courses did not meet their training needs and took them away from doing more research. There was a plea for more flexibility in how points could be accumulated (e.g., conference attendance, visits overseas, other non- standard research related activities). A review of the number of ECTS/points should be instigated that would allow for a less rigid system that allows students to gain more specific research based training that is not delivered in the classroom. There is little room for lectures at this level of education and the emphasis should be on the development of critical thinking

	skills and scientific discussion (e.g., the journal club model). Scientific communication and public dissemination of findings should also be encouraged. Opportunities to go to schools to enthuse children about psychological science should be offered and should count towards their doctoral training. PhD students should also be made aware of the importance of research impact – namely how their research can make a difference to society and the economy at large. This is not just at the student level but also the supervisor level and can help improve opportunities for funding in the future (e.g. as companies see the benefit of research to their business it will help drive up demand). Communicating research impact should be offered as specific training to PhD students through the Graduate School. Assessment methods do not seem appropriate for doctoral training. In the meiority of cases, assessment involves
	training. In the majority of cases, assessment involves students writing a 10 page paper that does not relate to their thesis work. Students have limited time and feel their time would be better used to do something that relates to their thesis document (e.g. writing a literature review on their topic of study). Again PhD training should be more focused on evaluating the development of critical evaluation skills and can be assessed in a journal club type format (i.e. student leads discussion on a controversial paper and highlights methodological flaws etc.).
4.8. The programme ensures quality through international connections and teacher and candidate mobility.	<b>IMPROVEMENTS NECESSARY</b> There was limited evidence of solid international connections that are being used within the context of the programme. Although projects with international collaborators are detailed in the self-evaluation report, there is no information on how PhD students benefit. At our site visit, discussions with students revealed that some students involved in funded research projects did avail of opportunities to visit labs abroad and collect data. What didn't seem clear is how these experiences are captured in the final thesis document (some of the work might be published but would not be in the final document).

strengthen research connections for supervisors. 1) Adopt a joint supervision model where a second supervisor is a collaborator at an international university. Meetings can be organised over Skype where the second supervisor is involved in all aspects of the research process (experimental design, data collection/analysis), interpretation of results). 2) Ensuring funds are earmarked for psychology PhD students to visit/spend time in another research lab. A University fund does exist, but it is unclear
how much students in psychology benefit.

## \* 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.