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### Responsible QA – committing to impact

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### Paper proposal form

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*Please note that all fields are obligatory. For a detailed description of the submission requirements and Frequently Asked Questions please consult the Call for Contributions.*

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Marina Matešić is Assistant Director for Research Evaluations with Croatian Agency for Science and Higher Education. She currently coordinates evaluations of research programmes (doctoral) and is a part of ASHE team in charge of developing a new framework for external evaluations of higher education institutions for 2018-2023 with particular focus on university research. She earned her PhD at the Institutum Studiorum Humanitatis in Ljubljana, as OSI and DAAD stipendist, and Master at the Central European University in Budapest, both in Gender Studies. She also worked and volunteered with human rights NGOs, taught courses at the university and participated in several research and development projects.

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Katarina Novak is a PhD candidate in the Department of Psychology at Faculty of Humanities and Social Sciences in Zagreb (Croatia). She has been a member of General Board of Young Scientists Network of Croatia since 2015. Through her membership she was a national representative and a presenter at Eurodoc's conference and annual general meeting in Luxembourg (2016). She was also a moderator and a presenter at International workshop on career development and interdisciplinarity for early-stage researchers in Debrecen (2017). Currently she is a coordinator of MLAZ's workgroup for research publication. As a psychologist she has working experience as a clinical psychologist in the hospital for cognitive rehabilitation after a traumatic brain injury. She has been a speaker/moderator on several national and international psychology conferences, and has publications in the field of cognitive and evolutionary psychology.



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Fabio Faraguna obtained his PhD in technical sciences, field materials at the Faculty of chemical engineering and technology. After his doctoral studies he received a DAAD research grant and worked at Leibniz-Institut für Polymerforschung Dresden. He has been a vice president of Young scientist network (MLAZ) from 2014 and president from 2017. During his employment at the faculty he worked as assistant on 12 different courses and was supervisor for 10 baccalaureus and 13 master degree diploma works. He has published 10 papers cited in current content, 2 in other journals and held 4 oral presentations and 25 poster presentations. His collaboration in industry has resulted in 10 industrial study documents. He was an organizer, speaker and moderator at several round tables organized by MLAZ dedicated to future of young scientists in Croatia and their role in connecting science and industry.

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Đurđica Dragojević is Head of International Cooperation in the Croatian Agency for Science and Higher Education where she has worked since 2008 as a manager for EU-funded project, interpreter and coordinator at site visits, in developing and improving ASHE procedures and coordinating ASHE cooperation with ENQA, ECA and other international networks. She holds a Master in Sociology at the Polish Academy of Science and graduated in Sociology and English at the University of Zagreb Faculty of Humanities and Social Sciences.

## Proposal

**Title:** Rescuing a misinterpreted Bologna Reform: Quality Assurance of the Third Cycle in Croatia

**Abstract (150 words max):** The implementation of the Bologna reform in the Croatian context has led to a number of issues with reforming and delivering doctoral education, including a lack of research qualifications other than PhDs, unusually large admission quotas, low graduation rates, long time to graduation, high tuition fees and lack of research funding, internationalisation and mobility. Evaluation of the PhD programmes by Agency for Science and Higher Education (ASHE) was chosen as a policy response to tackle those issues. The evaluation was successful in gathering stakeholder support and promoting common quality criteria, leading to improvements in the structure of the programmes, but unfortunately had no effect on the issues connected with the funding.

**The paper is based on:** policy

**Has this paper previously been published/presented elsewhere? If yes, give details.** NO

**Text of paper (3000 words max):**

### I – ISSUES WITH DOCTORAL EDUCATION IN CROATIA

After the Croatian signing of the Bologna Declaration in 2001, a new legal and institutional framework was developed for higher education. Before the implementation of



Bologna Declaration, after four- year diploma programme (which in practice took 5 years) one could enrol a Master study and get a Master of Science degree. This was an advanced level of specialisation that was partly research based (it included a research and dissertation) and lasted up to 3 years (with 1-2 years of advanced course work and 1-2 years in research and write-up). After the implementation of Bologna this programme was abolished. The 4 to 5 year general diploma studies were changed into 3+2 or 4+1 scheme of baccalaureate and master, and there was no room to add the research competences previously reserved for the MSc degree. Thus Croatian universities overwhelmingly turned to filling the gap of student research competences by increasing the number of obligatory courses within the doctoral studies which were supposed to last 3 years in total. As all three cycles started to be measured by the same meter (ECTS) in the Bologna higher education, enrolment in doctoral programmes has increased as it was perceived as the regular continuation of higher education. With high youth unemployment in hand, PhD programmes became a way to distinguish oneself on the labour market, or simply something to do during the prolonged search for gainful employment. Additionally, holding a PhD brings a 15 % increase salary for all employees in the public sector, where salaries are regulated by law. This had resulted in high enrolment quotas between 2007 and 2012, which together with the graduation deadlines connected with the phasing-out of old programs lead to 23.4 % annual increase in the number of PhD holders in Croatia. Although the success rate was quite low, the number of PhDs comparatively on average (2.30 doctoral graduates per thousand in population of 25-34-year-olds) was above the EU average (1.81 for 2012; European Commission, 2014).

Table 1. Number of enrolled and completed PhD candidates annually

<b>Year</b>	<b>Number of enrolled candidates</b>	<b>Number of graduates</b>	<b>Difference between enrolled and completed annually %</b>
<b>2006/7</b>	1918	424	<b>22</b>
<b>2007/8</b>	2049	325	<b>15</b>
<b>2008/9</b>	2357	243	<b>10</b>
<b>2009/10</b>	2443	287	<b>11</b>
<b>2010/11</b>	2584	346	<b>13</b>

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Source: AZVO, Thematic Evaluation of PhD programmes, 2013

With Bologna reform resulting in the increase of teaching content in the lower levels of higher education, the burden of under/graduate programme teaching hours fell heavily on the PhD students working as teaching assistants. Since 2014 there has been no valid Collective Agreement on Science and Higher Education, which regulated some rights of employees in higher education. In this situation, some of the faculties have exploited their doctoral candidates by giving them obligations exceeding agreement specifications or overburdening them with teaching responsibilities. According to the Young Scientists Network of Croatia (MLAZ, non-governmental organization) survey in 2015, conducted among doctoral candidates and PhDs that have recently finished their doctoral programs, this unregulated scenario varies between the faculties. Around 67 % of the participants of MLAZ survey (doctoral candidates and employees of HEI) have stated that they are working more hours than it was prescribed by the previously valid collective agreement. Along with this finding, 55 % of participants stated that they are forced to do tasks that are not part of scientific - teaching activities, and as a result 64 % of them are unable to devote most of their working time to scientific research, and this was again reflected in the duration and quality of their studies. While the portion of graduates was never above 20%, among those more than 50% took more than 4 years to graduate, with median time to graduation of 5 years.

Although no public funding was available to the HEIs for the third cycle programmes, some public funding was given to the universities for employing research/teaching assistants. Number and composition of enrolled students according to the source of funding is given in Table 2. From the doctoral candidates' perspective, particularly those that are self-financed (which made over 56 % in 2011/2012), the Bologna PhD programmes have developed into the most privatized and commercial cycle of higher education. (ASHE, 2013).

Table 2: Number and composition of enrolled students based on the source of funding

Number of doctoral candidates				
Type of funding	Self-financed	Employer funded	Employed as assistant	Total
2006/2007	1027	436	356	2118
2007/2008	1052	504	414	2218
2008/2009	1226	561	512	2528
2009/2010	1378	512	503	2721
2010/2011	1435	476	631	2923
2011/2012	1620	413	530	2865

Source: AZVO, Thematic Evaluation of PhD programmes, 2013

A further aggravating factor for the scarce budgets of the universities was the fact that, largely due to student protests, the Government abolished tuition fees for most of bachelors and masters programs. Just part time students and students which do not gather enough ETCS in a year have to pay part or full tuition. Tuition paid per student to faculty from the government is lower than it was previously paid by the student. This meant that faculties could only charge fees, which previously made a significant portion of their income, for the advanced graduate and postgraduate programmes. Reimbursements for the Bologna third cycle teaching or other (supervision) contact-hours remained in the domain of universities' scarce own funds, and therefore resulted in high tuition fees spent by majority of institutions on reimbursements for teachers. Fees for doctoral programmes now range from 500 to 2000 Euros per semester and in some extreme cases up to 3000 Euros. The average amount of fees per discipline is additional evidence that these funds are spent on paying teachers rather than research costs – as these would be much higher in natural than in social sciences (Table 3).

Table 3 Average tuition fee per discipline (in Euro)

Discipline	Average cost of a doctoral programme per semester
Natural Sciences	900
Humanities	950
Technical Sciences	1000

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Source: AZVO, Thematic Evaluation of PhD programmes, 2013

In the MLAZ survey, 36 % of the participants have stated that they have paid their own tuition, while others get their tuition paid by their employers (usually the state) or by the Ministry of science and education (MZO) through employment at higher education institutions. In Croatia scholarship grants specified for doctoral programs are so scarce that in the results of the survey none of the participants stated being funded by a grant. The lack of grants is connected with the generally scarce research funding by the Croatian state, and lack of competitiveness of Croatian institutions in European research funding (ASHE, 2017). In order to get funded, doctoral candidates thus try to get employed at the state owned companies, higher education institutions, public institutes or different national/European funded projects. It can be concluded that the funding for doctoral candidates in Croatia is through public funds (state, state owned companies, MZO), self-funded and to a lesser extent funded by the private sector.

Small research communities for the future doctoral candidates often mean that there is a high chance they will enrol the doctoral programme at their home institution and get employment there due to the lack of other institutions with similar employment possibilities. This lack of mobility between institutions is often commented on by AZVO panels (ASHE, 2017) as something that needs to change, however regarding the criteria of the employment at their institution, every second participant of MLAZ-survey had an opinion that criteria of employment at their institution are transparent. The same result was obtained when participants were asked if the criteria of employment at their institution are fair. Once someone is employed as an assistant, if they meet the deadlines for publication and graduation, they are almost guaranteed to continue on a tenure path if there is a job opening position. Although the job announcements for higher positions are public (published in government gazette or Euraxess portal), it is very rare that an institution employs an ‘outside’ candidate – and very few apply, especially foreigners, as the ability to teach in Croatian is almost always a prerequisite. A cultural issue seems to be at stake: while Croatian HEIs and their students believe that it is only fair to prefer your former students when employing assistants and enrolling PhDs, foreigners in ASHE panels see this as a disservice to both HEIs and students.

In this context of extremely large enrolment quotas and lack of research funding, it is no wonder that the quality of PhD programs deteriorated. Independent on how they are funded,



according to MLAZ-survey, around 50 % of the participants were not satisfied with the general quality of doctoral studies and stated they did not get enough knowledge in teaching skills (51 %), for their scientific work (50 %) or for entrepreneurial activity (81 %). That is why around 65 % of participants stated that they were dissatisfied with the price of the doctoral studies. Because there is no state funding for PhD programs, the state was not able to force universities to limit admission quotas, nor was it prepared to increase research funding. Thus, it had to find a way to encourage the institutions to improve their programmes in a way that would not require additional funding and would hopefully make them more competitive in acquiring EU and foreign research grants. Evaluation of all doctoral studies was identified as a solution, and the MZO asked ASHE to complete this task.

## **II – POLICY RESPONSE: ASHE EVALUATION**

The process of preparing the evaluation documents, criteria primarily, and outlining the goals of the evaluations, initiated by ASHE was aimed at achieving maximal participation by stakeholders, and a working group composed of Research Vice-Rectors and student representative was formed. For ASHE it was particularly important that the doctoral students' representatives MLAZ were included from early on not only in the working group but also outside of the criteria drafting process, as the experiences of doctoral students, gathered in various personal experiences, discussions, experiences in dealings with the policy makers, and numerous surveys conducted by the association, proved to be crucial to ASHE in carrying out the evaluations. This process therefore reflected a compromise towards a consensus on quality in third cycle higher education.

The starting points for the development of the criteria was thus input from MLAZ, results of ASHE survey, the Bologna documents and European and global guidelines for the third cycle (all listed on the [ASHE website](#)). The [criteria](#) focused on what could indeed be changed relatively easily and with no additional funding: the quality assurance of the programmes and the support provided to candidates, while also enabling ASHE to close down programmes of institutions which lacked basic research capacities (as defined by the number of active researchers at the institution) or those programmes which failed to deliver outcomes aligned with the European Qualifications Framework. Because of the size of the Croatian research community, ASHE decided to only appoint foreigners and, when available, Croats



working and studying abroad, to panels in order to avoid any conflicts of interest. To enable comparability between panels' judgments, a cluster evaluation was launched, with all reports in a discipline checked by the same cluster president before any decision is made based on them.

During the 2016 and 2017 ASHE finished or completed the site-visit and reporting for 50 out of 125 PhD programmes. Nevertheless, during the evaluation process and particularly as an effect of ASHE preparatory workshops (over 70 workshops) the most significant developments in quality assurance occurred by the HEIs themselves: 37 programmes initiated substantial changes to the content due to process of evaluation being carried out (decrease of classroom content, regulations on defence standards and other), and 10 programmes had been shut down before ASHE organised a site-visit. Furthermore, out of 33 evaluations that have been completed (both the reporting, the appeal and the recommendation by the ASHE have been completed), 14 conditional decisions/trial periods were issued and 17 positive (out of which 7 graded with high quality).

The overall recommendations given by panels were in many aspects repeated regardless of the institution or discipline:

1. Decrease the classroom content, increase research content and develop better structure of doctoral programmes;
2. Develop or improve structured/monitored mentorship (including the introduction of a third instance which evaluates the mentors) and appointment of mentorship (and co-mentorship) based on excellence and active research profile;
3. Decrease the admission quota/numbers by admitting only research oriented students, and introduction of research proposals at admission (that is eliminatory) and appointing supervision from day one;
4. Introduction of supervision and assistance for students in advancing through the programme by mechanisms of clear expectations and system of mutual reporting (evaluation reports both by students and by supervisor);
5. Introduction of foreign scientists in defence committees, stimulate using English as a dissertation language, increase international mobility of doctoral candidates and their supervisors (mobility and results, of publications and projects in general, etc.)





6. Increase the time and depth of research behind dissertations, because both the programmes (too much general theoretical courses) and the outcomes (dissertations which are insufficiently innovative or comprehensive) were on the cusp of the MA level;
7. Introduce transferable skills (both research and non-research ones, e.g. business, ethics and responsibility or project management skills);
8. Urgent introduction of anti-plagiarism check and related policies, as well as full publicity of dissertations;

There are, however, some areas where the evaluations proved to be ineffective or did not provide the desired results:

1. Funding issues (panels in general did not engage in recommending any funding changes)
2. Engaging the university or school management in taking responsibility
3. Engaging the private sector/industry/employers as stakeholders both in decision making and in funding the programmes

## **7. Conclusions**

In the short term the evaluation of Croatian doctoral programmes, conducted by ASHE in 2016, has yielded general improvement in different domains. This was primarily achieved with the development of criteria which, although not legally binding, were developed and accepted by the stakeholders. They served as a basis for autonomous improvement of programs and resulted in closing down programs that were not able to meet them. Thus, evaluation was a successful policy measure for the goal given by the Government – to have the autonomous institutions self-improve without being directly forced to. For now it is too early to evaluate the success of reforms implemented based on early reports because the first round of evaluations has ended recently. However, results of this round did identify examples of good practice which will hopefully push other institutions to develop their programmes along similar lines.

As anticipated the evaluation had no impact on funding. The cash-strapped institutions, as it was evident to panel participants, cannot be expected to stop charging fees. Also they cannot attract additional grants without seed funding from the government or support of research-intensive industries, of which there are very few in Croatia.

## **References:**



ASHE, Thematic Evaluation of PhD programmes, 2013 (available in Croatian on [https://www.azvo.hr/images/stories/vrednovanja/Izvjesce\\_doktorski\\_studiji\\_AS\\_final.pdf](https://www.azvo.hr/images/stories/vrednovanja/Izvjesce_doktorski_studiji_AS_final.pdf), last accessed July 2017)

ASHE, Analysis of the Results of the First Cycle of Reaccreditations, 2017 (available in Croatian on [https://www.azvo.hr/images/stories/novosti/Analiza\\_petogodi%C5%A1njeg\\_ciklusa\\_reakreditacije\\_2010-2015.pdf](https://www.azvo.hr/images/stories/novosti/Analiza_petogodi%C5%A1njeg_ciklusa_reakreditacije_2010-2015.pdf), last accessed July 2017)

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**Discussion questions:**

1. What are potential merits and drawbacks of using evaluations as policy interventions? Can they actually lead to improvements without additional funding and/or changes of the legal framework?
2. Issues of small research communities: how are they tackled by higher education institutions and agencies?
3. PhDs on the periphery – how to develop competitive PhD programmes with little internationalisation, meagre industry and state funding and few R&D positions in the economy?

*Please submit your proposal by sending this form, in Word format, by 24 July 2017 to [QAForum@eua.be](mailto:QAForum@eua.be). The file should be named using the last names of the authors, e.g. Smith\_Jones.doc. Please do not send a hard copy or a PDF file.*