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Director's introduction

Dear readers,

The academic and calendar year alike have already started, facing all of us working in the education system with new challenges, but also with an excellent opportunity to stop and reflect on the events which marked the year 2016.

The past year was marked by many diverse events in Croatian and international social and political life, which also had an impact on the education sector.

In academic terms, we took the test before the European Association for Quality Assurance in Higher Education (ENQA). The Agency has undergone a demanding procedure of international accreditation in order to renew its membership in ENQA and the European Quality Assurance Register for Higher Education (EQAR). I can't stress enough the importance of this event, and not just for the Agency. For the accreditation of Croatian higher education institutions to be credible in Europe and beyond, and for our higher education qualifications to be recognized abroad, an agency conducting external quality assurance procedures in higher education must also be internationally accredited. Therefore, the renewal of full membership in ENQA is extremely important, so the preparations for the review process were also very demanding and time-consuming. An international expert panel, chaired by Prof. Jürgen Kohler from the University of Greifswald and former president of the German Accreditation Council, visited us in October 2016. The panel held meetings with the Agency's employees and other stakeholders, including representatives of higher education institutions, students and reviewers.

Last year, we launched the procedure of re-accreditation of doctoral study programmes. The procedure was



Image 1: Professor Jasmina Havranek, PhD

preceded by extensive preparations carried out by ASHE staff, in cooperation with the academic community, which included the organization of workshops for higher education institutions, members of the expert panels and other activities. The Agency has invested a great deal of effort, and this year we will continue along these lines.

This year will particularly be remembered for activities concerning EU funded projects, such as the project *Improving the system of higher education quality assurance and improvement* (SKAZVO) and *Human resources modernization in higher education institutions* (HRMinHEI). While the goal of the three-year SKAZVO project is to develop new and improve existing procedures of external evaluation, the two-year HRMinHEI project aims at encouraging excellence of the academic staff and the strengthening of the organizational efficiency of higher education institutions.

Following the end of the first cycle of re-accreditation of higher education institutions, an analysis has been made based on the data collected in the procedure. The analysis will benefit higher education institutions in making self-assessment and comparisons with similar higher education institutions, while it will also be beneficial to policymakers in the field of higher education.

As part of the preparations for a new re-accreditation cycle, and taking into account previous experience and the information shared by the coordinators, panel members, higher education institutions and other stakeholders, we have drafted the documents for a new re-accreditation model. They involve the standards for evaluation, the process of re-accreditation, assessment system and the data obtained by the Agency in the process of re-accreditation from the MOZVAG database. The documents have been aligned with the amended Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) and a public hearing will be held to gather suggestions and comments from stakeholders.

The first cycle of external audit was completed in January 2017. The evaluation sought to assess the efficiency and level of development of quality assurance systems at higher education institutions in place, as well as their contribution to the continuous quality improvement. The audit was performed at universities and polytechnics, as well as at some university constituents and colleges that have met the audit criteria.

Last year was also marked by activities related to human resources. In addition to the aforementioned

HRMinHEI project that deals with human resources in higher education institutions, we have dealt with the competencies of employees who work in quality assurance. ASHE participated in the work of ENQA's Working Group for professional development of employees that has developed a model for unified competencies framework for staff working in the field of quality assurance in all ENQA member agencies.

As regards human resources management, we proudly announce that we have been awarded the MAMFORCE standard in 2016 as an acknowledgment of the implementation of gender and family policies. The Agency has become the first institution from the public sector to have been awarded the MAMFORCE standard. This way all of our efforts in the past period have been acknowledged, and we have made a commitment to continue with our activities in this area. Hopefully, this will encourage other institutions from the public sector to become actively involved in the development of their employees.

In 2016, we continued to monitor the employability of graduates in order to get first-hand information about their transition from the education to the labour market. We began the study of certain aspects of the student experience in the generation of students who enrolled undergraduate and integrated study programmes in the academic year 2012/2013, and the results are expected in the first half of this year.

As in previous years, our services continued to provide administrative and technical support to the bodies in the system of higher education such as the National Council for Science, Higher Education and Technological Development, the Council of Polytechnics and Colleges, scientific field committees, scientific area councils and field committees.

As far as the international cooperation is concerned, we had the opportunity to participate in relevant international conferences as speakers and participants, share our experiences and learn from our international colleagues. We also welcomed many experts and colleagues from abroad, for example, Professor Martin Trethewey from the prestigious American Penn State University, who held a lecture for ASHE staff on quality assurance in higher education in the United States.

At the end of this introduction, I should also mention our plans for 2017. First of all, we are planning to publish an analysis of the first cycle of re-accreditation, adopt documents for a new re-accreditation model, conduct the evaluation of doctoral studies, reconstruct the MOZVAG database, perform other activities related to the SKAZVO project, implement the Erasmus + project HRMinHEI and carry on with other day to day activities.

I would like to thank everyone for their contributions to the Agency's activities and the achievement of the set targets – my colleagues from the Agency, panel members, colleagues and academic partners, colleagues from abroad, everyone with whom we have collaborated successfully in the last period. Special thanks go to our students who have participated in the work of the Agency's Central Applications Office and other services. Thank you all for your enthusiasm and efforts and I hope that the next year will be as dynamic and diverse as this!

Professor Jasmina Havranek, PhD

Director of the Agency for Science and Higher Education

*ASHE's Management Board adopted the 2016 Annual Report and 2017 Activity Plan via e-mail.

2016 in review

ASHE underwent a complex procedure of international accreditation aimed at renewing its full membership in ENQA.

According to the Postgraduate university study programmes re-accreditation plan for 2016, the Agency organised site visits to 33 postgraduate university study programmes.

The Agency organised workshops for coordinators of more than 70 doctoral study programmes and management representatives of higher education institutions at four universities. Clusters comprising 48 members of expert panels participated in the procedure of re-accreditation of doctoral study programmes.

The Agency produced the Analysis of the five-year cycle of re-accreditation of higher education institutions.

An analysis of fitness for purpose and the impact of external evaluation procedures was conducted.

In accordance with the preparations for the new reaccreditation cycle, drafts of the following documents were produced: Standards for the evaluation of quality of universities and university constituents in the procedure of re-accreditation of higher education institutions; Standards for the evaluation of quality of polytechnics and colleges in the procedure of re-accreditation of higher education institutions; the Procedure for the re-accreditation of higher education institutions; The system of the assessment and evaluation of quality of higher education institutions in the procedure of higher education institutions re-accreditation and Tables in the self-evaluation obtained from the MOZVAG database.

The Agency received 16 requests for conducting initial accreditation of study programmes from polytechnics and colleges. Based on the conducted initial accreditation procedures, 10 study programmes received a recommendation to issue a licence, four programmes received a negative recommendation from the Accreditation Council while other requests are still in the process of solving.

The Agency received one request for initial accreditation procedure for conducting higher education activities, which is in the process of solving.

The Agency received and solved one request for initial accreditation of scientific activities.

Forty-two positive opinions and two negative opinions were passed on the justifiability of public funding of new study programmes.

A draft of the Meta-evaluation of external quality assurance audits conducted from 2010 to 2015 was made and published, which contains information about all procedures carried out in the first cycle and annual meta-evaluations produced so far.

Initial meeting of the national Network of higher education institutions quality assurance units (CroQAnet) was held.

The National Council for Science, Higher Education and Technological Development held five sessions.

Scientific Area Councils held seven sessions.

Scientific field committees held 94 sessions and passed 1243 decisions.

The Council of Polytechnics and Colleges held six sessions.

The field committees of the Council of Polytechnics and Colleges held 28 sessions and passed 298 positive opinions on the fulfilment of the criteria for the appointment to teaching grades.

Six consultation sessions were held with employees of higher education institutions which were appointed as MOZVAG database coordinators at their higher education institutions in Osijek, Split, Zadar, Rijeka and Zagreb. *"I fully support the Agency's management and the work of the Director of the Agency, Professor Havranek, in fostering the values of the quality standards and quality culture, in sharing information with the aim of understanding and improving policies on higher education and science, as well as in insisting on the implementation of the set criteria for improvement."*

doc. dr. sc. Vesna Bedeković, college professor

A study of certain aspects of student experience (students having enrolled undergraduate and integrated study programmes in the academic year 2012/2013) was launched in October 2016.

Croatian ENIC/NARIC Office recognized 1700 foreign higher education qualifications for the purpose of employment.

ASHE has taken part in 15 international projects as project leader or partner.

ASHE was awarded the MAMFORCE standard for implementing family responsibility and gender equality policies.

External quality assurance procedures in science and higher education



Re-accreditation of higher education institutions

The first five-year re-accreditation cycle ended by the evaluation of four higher education institutions:

- 1. Academy of Music, University of Zagreb,
- 2. Academy of Music, Juraj Dobrila University of Pula,
- 3. University Department for Forensic Sciences in Split,

4. University Department of Health Studies, University of Split.

The mentioned higher education institutions were included in the Re-accreditation Plan for 2014/2015

which requested for postponement, so the expert panels visited those HEIs in the first half of 2016.

The first re-accreditation cycle included all Croatian higher education institutions for the first time using a single methodology and criteria.

Re-accreditation of postgraduate university (doctoral) study programmes

The re-accreditation of doctoral study¹ was initiated by

¹In accordance with the Act on Scientific Activity and Higher Education (OG 123/03, 198/03, 105/04, 174/04, 02/07, 46/07, 45/09, 63/11, 94/13, 139/13, 101/14, 60/15) postgraduate university study (hereinafter: doctoral study programme) may be enrolled upon the completion of graduate university study and it lasts for at least three years. Upon fulfillment of prescribed conditions and a public defense of the doctoral dissertation in scientific fields the academic degree of Doctor of Science (Dr.Sc.) is awarded, while upon the fulfillment of all the conditions stipulated in the artistic field the academic degree of Doctor of Arts (Dr. Art.) is awarded.

the findings of previous evaluation procedures conducted by the Agency for Science and Higher Education (ASHE), including the thematic evaluation procedures conducted in 2013 and 2014. The aim of the re-accreditation of the doctoral study programmes is primarily to make sure that higher education qualifications for the academic degree "doctor of science" reflect study programmes of high quality, which are internationally comparable and aligned with minimal legal conditions. The re-accreditation will make sure that all the doctoral study programmes in Croatia meet the minimum requirements, and that the academic titles "doctor of science" and "doctor of arts" reflect the degree of knowledge and skills equivalent to the highest level of higher education.

Preparatory activities and the adoption of the evaluation criteria

ASHE started to conduct the re-accreditation of postgraduate university (doctoral) study programmes in 2016, in accordance with the 2016 and 2017 Plan adopted by ASHE's Accreditation Council.

The Agency had previously conducted extensive preparatory work which had included thematic evaluations of postgraduate university study programmes in 2013 and founding a working group for the development of evaluation criteria. The outcomes of thematic evaluations as well as other ASHE's final reports stressed the need for a systematic external evaluation for which it was necessary to develop specific quality evaluation criteria as well as the new evaluation methodology appropriate for the evaluation of (research) study programmes. Moreover, in May 2014, the Ministry of Science, Education and Sport sent a request for extraordinary reaccreditation of doctoral study programmes. In 2014 and 2015, ASHE appointed a working group (consisting of representatives of the Accreditation Council, vice-rectors for science as well as other stakeholders) to draw up the criteria, conducted a public hearing and adopted the document *The principles and criteria for the re-accreditation of postgraduate university study programmes* and accompanying forms at the session of the Accreditation Council in December 2015. ASHE began intensive preparations for the re-accreditation and workshops for higher education institutions.

There are four goals of the reaccreditation of doctoral study programmes:

- 1. Accredit only those programmes that comply with the existing quality criteria;
- Provide higher education institutions with a review of quality assurance and comprehensive performance indicators at the doctoral level and recommendations and target dates for improvements;
- **3.** Check if higher education institutions have adequate capacities, processes and programme to be able to guarantee achievement of learning outcomes at a satisfactory level of the Croatian Qualifications Framework, and provide recommendations and target dates for improvements;
- 4. Identify high-quality doctoral programmes.

Counselling and support to higher education institutions in the preparation for re-accreditation

In 2016 ASHE organized workshops for doctoral study programme coordinators and management representatives of higher education institutions for more than 70 programmes at four universities, i.e. at the constituent units delivering the programmes included in the 2016 Plan. ASHE held 13 workshops for the representatives of higher education institutions and three

more workshops at universities for all university representatives included in the Plan. Along with the workshops, ASHE organized lectures delivered by the experts in the quality assurance of doctoral training and doctoral schools.

In order to provide the stakeholders with a number of examples of quality improvement of the third cycle of higher education, based on the final reports of the re-accreditation of doctoral study programmes in 2016, ASHE drafted a brochure with examples of good practice in the quality assurance of doctoral studies.

Preparation for the evaluation and modifications to the plan

At a reasoned request of universities and their constituents, and with the consent of the Accreditation Council, the visit to the following institutions delivering doctoral programmes was postponed:

	Study programme name	University	Institution delivering the programme	The reason for postponement			
	Cluster of natural sciences, biological sciences, ecological sciences and chemical engineering						
1.	Geology Chemistry Biology Physics Oceanology Geography	University of Zagreb	Faculty of Science	Letter of expectation for a certain number of doctoral study programmes.			
2.	Mathematics	University of Zagreb, Osijek, Rijeka, Split	Faculty of Science, Zagreb	Due to the postponement for other study programmes in the cluster.			
3.	Biophysics	University of Split	Faculty of Science, University of Split	Letter of expectation for the study programme and the institution delivering the programme			
4.	Applied Marine Sciences	University of Split	University Department of Marine Studies, University of Dubrovnik	Letter of expectation for the study pro- gramme and the institution delivering the programme			
5.	Nature Conservation and Environmental Protection	Josip Juraj Strossmayer University of Osijek	Josip Juraj Strossmayer University of Osijek	Due to the postponement for other study programmes in the cluster.			
6.	Molecular Biosciences	Josip Juraj Strossmayer University of Osijek	Josip Juraj Strossmayer University of Osijek	Due to the postponement for other study programmes in the cluster.			
7.	Chemical Engineering in Materials Development and Environmental Protection; Chemistry of Mediterranean Environment	University of Split	Faculty of Chemical Engineering and Technology	Letter of expectation for activities of higher education and science			

	Study programme name	University	Institution delivering the programme	The reason for postponement
		Cluster of Geotechnica	al Sciences and Metallurgy	
8.	Applied Geoscience, Mining and Petroleum Engineering	University of Zagreb	Faculty of Mining, Geology and Petroleum Engineering	Due to the postponement for other study programmes in the cluster.
9.	Geo - Engineering and Water Management	University of Zagreb	Faculty of Civil Engineering, Geotechnical Faculty, Faculty of Mining, Geology and Petroleum Engineering, University of Zagreb, Graz University of Technology, University of Maribor	Joint study, recently launched
		Biomed	icine cluster	
10.	Biomedicine and health	Josip Juraj Strossmayer University of Osijek	Faculty of Medicine	Letter of expectation for activities of higher education and science
11.	Medical Chemistry	University of Rijeka	Department of Biotechnology	Letter of expectation for the doctoral study programme in the previous evaluation.

In accordance with the Postgraduate university study programmes re-accreditation plan for 2016, ASHE organised visits of 33 post-graduate university study programmes. Mostly foreign members of the expert panels participated in the evaluation procedures.

	Study programme name	Institution providing the programme	Institution delivering the programme	Number of reviewers				
	Cluster of Civil Engineering, Architecture and Geodesy							
1.	Civil Engineering	Josip Juraj Strossmayer University of Osijek	Faculty of Civil Engineering					
2.	Civil Engineering	University of Zagreb	Faculty of Civil Engineering					
3.	Civil Engineering	University of Split	Faculty of Civil Engineering, Architecture and Geodesy	13				
4.	Civil Engineering	University of Rijeka	Faculty of Civil Engineering	15				
5.	Architecture and Urban Planning	University of Zagreb	Faculty of Architecture					
6.	Geodesy and Geoinformatics	University of Zagreb	Faculty of Geodesy					

	Study programme name	Institution providing the programme	Institution delivering the programme	Number of reviewers	
	Cluster of Electrical E Ma				
7.	Mechanical Engineering, Naval Architecture, Aviation, Metallurgy	University of Zagreb	Faculty of Mechanical Engineering and Naval Architecture; Faculty of Metallurgy		
8.	Mechanical Engineering; all specialisations	Josip Juraj Strossmayer University of Osijek	Faculty of Mechanical Engineering		
9.	Post-graduate (doctoral) study programme in the field of technical sciences	University of Rijeka	Faculty of Engineering		
10.	Electrical Engineering	University of Rijeka	Faculty of Engineering		
11.	Technological Systems in Traffic and Transport	University of Zagreb	Faculty of Traffic Engineering		
12.	Maritime Studies	University of Rijeka	University of Rijeka Faculty of Maritime Studies	20	
13.	Electrical Engineering and Computing	University of Zagreb	Faculty of Electrical Engineering and Computing		
14.	Electrical Engineering	Josip Juraj Strossmayer University of Osijek	Faculty of Electrical Engineering		
15.	Mechanical Engineering	University of Split	Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture		
16.	Electrical Engineering and Information Technology	University of Split	Faculty of Electrical Engineering, Mechanical Engineering and Naval Architecture		
	Electrical Engineering and Information Technology		ation Technology		
17.	Graphic engineering and design	University of Zagreb	Faculty of Graphic Arts	C	
18.	Textile Science and Technology	University of Zagreb	Faculty of Textile Technology	6	

	Study programme name	Institution providing the programme	Institution delivering the programme	Number of reviewers
	Cluster of Agricultu	ral Sciences, Forestry and Wood	Technology and Food Technology	
19.	Agricultural Sciences	Josip Juraj Strossmayer Uni- versity of Osijek	Faculty of Agriculture	
20.	Agricultural Sciences	University of Zagreb	Faculty of Agriculture	
21.	Forestry and Wood Technology	University of Zagreb	Faculty of Forestry	10
22.	Food technology, Biotechnology and Bioprocess Engineering and Nutrition	University of Zagreb	Faculty of Food Technology and Biotechnology	
23.	Food Engineering	Josip Juraj Strossmayer Uni- versity of Osijek	Faculty of Food Technology	
	Clust	er of Biomedicine and Health (in	progress, 5712.)	
24.	Biomedicine and health	University of Zagreb	Faculty of Medicine	
25.	Neuroscience	University of Zagreb	Faculty of Medicine	
26.	Biomedicine	University of Rijeka	Faculty of Medicine	
27.	Health and Environmental Engineering	University of Rijeka	Faculty of Medicine	
28.	Cancer Biology	University of Split	Faculty of Medicine	
29.	Evidence-based Clinical Medicine	University of Split	Faculty of Medicine	19
30.	Translation Research in Biomedicine	University of Split	Faculty of Medicine	
31.	Dental Medicine	University of Zagreb	School of Dental Medicine	
32.	Veterinary Sciences	University of Zagreb	Faculty of Veterinary Medicine	
33.	Pharmacy and Biochemistry	University of Zagreb	Faculty of Pharmacy and Biochemistry	
			Total number of reviewers:	68

Examples of good practice and areas for improvement

The expert panel reports on doctoral study programmes in the technical and biotechnical areas mentioned many examples of good practice in quality assurance, while also identifying areas where there is room for improvement.

Examples of good practice:

- · High standard of the dissertation defence procedure;
- Qualified mentors;
- Good infrastructure and openness of institutions to doctoral students;
- Motivated PhD candidates and mentors who find ways to achieve excellent results with limited financial resources.

Recommendations for improvement:

- Reduce the number of general courses and increase research activities so that i.e. encourage structured research from the very beginning of the study, as well as the monitoring of the progress of doctoral candidates;
- Improve mentoring (by assigning co-mentors, external members or panels for the supervision of doctoral candidates, organizing training for mentors to help them increase the completion rate);
 - To make admissions based on the competitive selection of the best candidates (research proposals) for which there are criteria for the successful completion of studies (or introduce eliminatory threshold after the first year of study);
 - Introduce learning outcomes of generic skills such as business or project management skills, including the knowledge of English for academic purposes, and strengthen the ethical component of accountability

in research including the systematic training and checking for plagiarism;

• Publish doctoral theses on official websites in accordance with the protection of intellectual property.

Recommendations for public policies:

- Provide public funding for doctoral education;
- Adopt joint university policies: ethics and accountability in doctoral education, recommendations for specific types of dissertations such as dissertations in arts, dissertations in the form of published papers, the recognition of prior learning and so on;
- Financial and other type of support to the internationalization of doctoral education (including the internationalization of committees for the assessment and defence of dissertations).

List of expert panel members in the re-accreditation of post-graduate university study programmes in 2016

Cluster of Electrical Engineering, Computing, Mechanical Engineering, Naval Architecture, Maritime Studies and Transport and Traffic Sciences:

- 1. Dr. Gordon Dalton, University College Cork, Ireland, President of the Expert Panel,
- 2. Prof. Daniele Nardi, Sapienza University of Rome, Italy,
- **3.** Prof. Karol Kalna, College of Engineering, Swansea University, United Kingdom,
- **4.** Prof. Jens Grabowski, Georg-August-Universität Göttingen, Germany,
- **5.** Prof. Aurélio Campilho, Faculdade de Engenharia da Universidade do Porto, Portugal,

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- **6.** Prof. Aurelian Francillon, EURECOM Graduate School and Research Center in Communication System, France,
- 7. Prof. Zoltán Fülöp, University of Szeged, Hungary,
- **8.** Giuseppe Moschetti, doctoral candidate, Huddersfield University, United Kingdom,
- 9. Prof. Ove T. Gudmestad, University of Stavanger, Norway,
- **10.** Maximilian Lesellier, doctoral candidate, Robotique et de Microélectronique de Montpellier (LIRMM), France,
- **11.** Massimiliano Ferrucci, doctoral candidate, National Physical Laboratory, KU Leuven, Belgium,
- **12.** Prof. Hongming Xu, University of Birmingham, United Kingdom,
- **13.** Prof. Vadim Silberschmidt, Loughborough University, United Kingdom,
- 14. Prof. Sergey V. Utyuzhnikov, University of Manchester, United Kingdom,
- **15.** Ana Carolina dos Santos Paulino, doctoral candidate, University of Strasbourg, France,
- **16.** Prof. Kjell Ivar Øvergård, University College of Southeast Norway, Norway,
- **17.** Prof. Aleksander Sladkowski, Silesian University of Technology, Poland,
- 18. Prof. Stojan Petelin, Univerza v Ljubljani, Slovenia,
- **19.** Hilde Sandhåland, doctoral candidate, Stord/ Haugesund University College, Norway.

Cluster of Civil Engineering, Architecture and Geodesy:

- 1. Prof. John Bridgeman, University of Birmingham, United Kingdom, President of the Expert Panel,
- **2.** Prof. Christopher Kotsakis, Aristotle University of Thessaloniki, Greece,
- **3.** Prof. Peter van Oosterom, Delft University of Technology, Netherlands,
- 4. Iliana Tsali, doctoral candidate, University of Calgary,

Canada,

- **5.** Prof. Elias Kassa G., Norwegian University of Science and Technology, Norway,
- **6.** Prof. Ashraf S. Ayoub, City University London, United Kingdom,
- **7.** Prof. Hendrik Voll, Tallinn University of Technology, Estonia,
- 8. Nicholas Lippiatt, doctoral candidate, KU Leuven, Belgium,
- **9.** Samer Sabry Fahmy Mehanny Gendy, doctoral candidate, City University London, United Kingdom,
- **10.** Prof. Johan Verbeke, Aarhus School of Architecture, Denmark,
- 11. Prof. Elena Mussinelli, Politecnico di Milano, Italy,
- **12.** Prof. Franklin van der Hoeven, Delft University of Technology, Netherlands,
- **13.** Teodora Iulia Constantinescu, doctoral candidate, Universiteit Hasselt, Belgium.

Cluster of Biotechnical Sciences:

- **1.** Prof. Jürgen Pretzsch, Dresden University of Technology, Germany, President of the Expert Panel,
- **2.** Prof. Hans Thordal-Christensen, University of Copenhagen, Denmark,
- 3. Prof. Vesna Miličič, Univerza v Ljubljani, Slovenia,
- **4.** Prateek Mahalwar, doctoral candidate, Max Planck Institute for Developmental Biology, Germany,
- 5. Prof. Marketta Sipi, University of Helsinki, Finland,
- 6. Hynek Roubík, doctoral candidate, Czech University of Life Sciences Prague, Czech Republic,
- **7.** Prof. Claes Niklasson, Chalmers University of Technology, Sweden,
- **8.** Prof. Colette Fagan, University of Reading, United Kingdom,
- **9.** Prof. Susanne Knøchel, University of Copenhagen, Denmark,

10. Kathirvel Alagesan, doctoral candidate, Max Planck Institute of Colloids and Interfaces, Germany.

Cluster of Textile Technology and Graphic Technology and Design:

- 1. Prof. Diana Gregor-Svetec, University of Ljubljana, Slovenia, President of the Expert Panel,
- 2. Prof. Stefan Brües, University of Wuppertal, Germany,
- **3.** Prof. Robert Matthews Christie, Heriot-Watt University, United Kingdom,
- **4.** Prof. Reinhard R. Baumann, Chemnitz University of Technology, Germany,
- **5.** Ewelina Katarzyna Pabjanczyk-Wlazlo, doctoral candidate, Lodz University of Technology, Poland,
- 6. Ivana Carev, doctoral candidate, University of Split, Croatia.

Postgraduate university study programmes reaccreditation plan for 2017

ASHE is planning to evaluate 69 doctoral study programmes in the areas of information and communication science, law and political science, economics and arts in the spring of 2017, while the study programmes in the areas of other social studies and humanities will be evaluated in the autumn. At the end of 2017, ASHE will start to evaluate the postponed study programmes. A detailed 2017 Plan with the deadlines for the submission of self-evaluation reports and clusters has been published on ASHE's website and sent to the institutions delivering and providing the study programmes. "This was the most professional evaluation I ever joined."

Univ. Prof. Mag. Dr. Hanna Mayer, expert panel member, University of Vienna

Re-accreditation of scientific organisations outside the system of higher education and public scientific institutes

ASHE adopted the re-accreditation plan including 70 scientific organisations outside the system of higher education and public scientific institutes in July 2014. Scientific organisations outside the system of higher education and public scientific institutes are all institutions entered in the Register of Scientific Organisations (legal entities performing a scientific activity in accordance with the Act on Scientific Activity and Higher Education), other than universities and public scientific institutes. The Agency carries out a separate external evaluation procedure for institutions carrying out higher education activities, i.e. for public research institutes.

The re-accreditation of 48 scientific organisations was carried out in 2015, while the remaining 22 scientific organisations were evaluated and the accreditation recommendations for them were adopted early in 2016.

The Agency thus fulfilled its duty stipulated by Article 22 of the Act on Quality Assurance in Science and Higher Education by including all scientific organisations entered in the Register of Scientific Organisations in the periodic external evaluation procedures. This has created preconditions for the new evaluation cycle and future policies in quality assurance in science (and higher education) based on the evaluation outcomes.

"The quality and professionalism of employees of the Agency for Science and Higher Education result from personal and professional efforts of all employees, as well as the excellent management of the Agency."

doc. dr. sc. Gordana Nikolić, Dean of Business School PAR

Analysis of the five-year re-accreditation cycle

Based on the information gathered in the first fiveyear re-accreditation cycle the Analysis of the fiveyear HEI re-accreditation cycle was made in 2016. It is a comprehensive analysis of information on higher education institutions in the system of science and higher education in the Republic of Croatia, and their activities.

The Analysis provides an overview of information at the institutional level, at the level of scientific areas and at the national level.

It is mostly based on the information gathered from the self-evaluation reports of higher education institutions and comprises three groups of information – information on constituents and departments of public universities, information on public and private polytechnics and colleges and information on private universities.

The information on constituents and departments within

public universities have been analysed at the level of the following scientific areas:

- Economics (viewed separately from the social sciences);
- **2.** Technical sciences;
- 3. Biotechnical sciences;
- 4. Social sciences;
- 5. Humanities;
- 6. Biomedicine and health;
- 7. Natural sciences;
- 8. Arts.

The processed information was gathered from the relevant tables from the self-evaluation report form completed by higher education institutions, and it references all three university missions (teaching, scientific and social role):

- 1. The number of teachers employed at higher education institutions by title;
- 2. The number of students at the study programmes;
- **3.** List of scientific projects at higher education institutions;
- **4.** The number of scientific publications at higher education institutions;
- 5. Student and teacher mobility;
- **6.** Financial resources.

The analysis will mostly benefit higher education institutions in making self-assessments and comparisons with other similar higher education institutions. However, as the stated information and the recommendations from the expert panels refer to some structural characteristics of Croatian higher education system, the purpose of this analysis is also to refer to the public policies related to this system. The report indicates positive results of quality assurance policies in higher education in Croatia, and points to the need to revise other higher education policies. It primarily concerns policies that cover the sources of funding of higher education and research activities and the implementation of strategic activities at the level of the system, and consequently, at the level of the institution.

The overall Analysis will be published in the first half of 2017.

Analysis of the impact of external evaluation procedures on the system of higher education

ASHE has made an analysis of the fitness for purpose and the impact of external evaluation procedures. The analysis was based on an analysis of the questionnaire which was designed to study the perception of quality in higher education (its concept and importance), the model of quality assessment and reporting. At the same time, the questionnaire sought to include the perception of satisfaction with the existing re-accreditation models and audit to identify areas where there is room for improvement. In this way, the questionnaire also sought to examine the fitness for purpose, one of the main approaches to quality, of the procedures carried out by ASHE. Finally, it established which concept of quality of higher education institutions and/or programmes and reporting would be appropriate in Croatian context.

Given the diversity of perceptions of the role and quality of higher education, the questionnaire included various approaches to the stakeholders in the higher education system – leaders of higher education institutions, teachers, researchers, students, graduates and employers. Questions in the questionnaire were adapted for different stakeholders.

The analysis of the results has shown that the external evaluation of quality is more important for its improvement, than for its assessment. With regard to the perception of quality in different stakeholders, we have noticed that the employees of higher education institutions, including their leaders, assess the quality of an institution through the content of the study programme and teaching staff, while students mention the experience of studying as the most important characteristic of quality.

At the institutional level, a positive attitude of the leaders of institutions towards the procedures and the results of the evaluation was noticed, but also their insufficient use in terms of the assessment of the quality of an institution/ programme and as a reform mechanism.

In terms of the availability of the Agency reports, extra efforts should be made to make the reports available to the general public in a simpler form i.e. in the form of summarized data with the advantages of a higher education institution/programme and comparisons with other institutions.

The results of the questionnaire gave a fairly clear picture of the attitudes and perceptions of stakeholders in the higher education system of quality, models of the evaluation of quality and reporting on the results of these evaluations. They will serve as a starting point for further development of existing and new documents covering this area in order to make the quality improvement procedures more fit for purpose and relevant as a means of quality control, information, and changes at the level of the institution and the system to all its users.

Development of the new re-accreditation cycle

ASHE carried out the first cycle of the re-accreditation of all public and private higher education institutions in the Republic of Croatia from 2010 to 2016. Although the analyses have shown that the first cycle of reaccreditation was successful and fit for purpose, during the implementation of the first cycle and based on the information gathered from stakeholders and their self-assessment, the need was identified to modify and improve the existing re-accreditation model. This primarily refers to the need for further alignment with the amended Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG), which were adopted by the ministers of the European Higher Education Area in 2015. Likewise, certain improvements refer to the changes in the number and ambiguousness of the quality criteria, excessive emphasis on inputs and processes, and insufficient emphasis on outputs, in the minimum quantitative data (the analysis of the human and physical resources from the MOZVAG database), which are under-represented in the quality score. It should be taken into account that the current model of re-accreditation involved the institutional/programme evaluation, which was justified by the demand for costeffectiveness during the first cycle of external evaluation.

Therefore, together with the Committee of the Accreditation Council, ASHE made a proposal for the new re-accreditation model last year, which primarily includes the modified standards for the assessment of quality of universities and university components, as well as polytechnics and colleges.

Drafts of the following documents were made:

- Standards for the evaluation of quality of universities and university constituents in the procedure of reaccreditation of higher education institutions;
- Standards for the evaluation of quality of polytechnics and colleges in the procedure of re-accreditation of higher education institutions;
- The Procedure for the re-accreditation of higher education institutions;
- The system of the assessment and evaluation of quality of higher education institutions in the procedure of higher education institutions reaccreditation;
- Tables in the self-evaluation report obtained from the MOZVAG database.

A public hearing will be held on the drafts of these documents by the end of February 2017, and comments and proposals from the members of the academic community and other stakeholders will be gathered.

In accordance with the new model, the goal of the next re-accreditation cycle should be to encourage improvements, in accordance with the recommendations for guality improvement resulting from the first cycle of the re-accreditation of higher education institutions. In this context, a higher education institution is viewed as a whole, and the quality of an institution includes the assessment of all activities of an institution. The modified re-accreditation model enables the verification of key, generally accepted standards, and quality score, based on the report of the expert panel that has been fully aligned with the ESG. The current minimum quantitative data are input used for the report of the expert panel. On the basis of an expert panel report and the response of a higher education institution, the Accreditation Council passes an expert opinion on the result of verification in the process of re-accreditation. Using this approach, the key standards,

which include the previous minimum requirements and the necessary amendments to the ESG, are included in the quality score. The result of the verification, and ultimately the outcome of the re-accreditation procedure, depends on the fulfillment of key standards, but also on the overall quality score.

Taking this into account, a fit for purpose system of standards and their descriptions as well as indicators and evidence was established, which enable a clear and objective evaluation procedure. The standards have been aligned with the ESG, and the score of the compliance with each standard, while the overall quality score and recommendations for quality improvement are passed by an independent expert panel. This model, using quality and quantitative standards, allows the members of expert panels and the Accreditation Council to make an informed decision on each case, by assessing the extent to which a lower quality of a part of an institution's activity lowers its overall quality.

Initial accreditation

Initial accreditation of study programmes

The procedure of initial accreditation of study programmes includes the check of compliance of study programmes with the strategic document, the Network of Higher Education Institutions, the examination of received documents, site visits to higher education institutions by expert panels, administrative and professional support provided by ASHE during site visits, drafting of the final report and the issuing of accreditation recommendation.

In the past year ASHE received 16 requests for initiating

the procedure of initial accreditation of new study programmes from polytechnics and colleges.

Based on the procedures of initial accreditation carried out in 2016, the proposal was made to the Minister to issue licences for 10 study programmes, out of which four are undergraduate professional study programmes, five are specialist graduate professional study programmes and one is a short-term professional study programme. Four requests received a negative recommendation from the Accreditation Council, three of which referred to the dislocated study programmes. Other requests are in the process of solving.

Almost all recommendations refer to the study programmes in the area of social sciences and only several study programmes are delivered in the area of technical sciences, biomedicine and health.

Initial accreditation for performing higher education activities

In 2016, ASHE received one request for performing initial accreditation for carrying out higher education activities, which is under way.

Initial accreditation for carrying out scientific activity

ASHE carries out the procedure of initial accreditation for carrying out scientific activity, that is, establishing a scientific organisation or entering an existing scientific organisation in the Register of Scientific Organisations in a new scientific area².

Initial accreditation for carrying out scientific activity includes the following stages: examining the submitted documentation, a site visit of the expert panel to a scientific organisation, writing the final report and issuing the accreditation recommendation.

In 2016, ASHE received one request for initial accreditation for carrying out scientific activity, which was completed.

Justifiability of public funding of new study programmes

ASHE passes an opinion on the justifiability of public funding of new study programmes at public universities, set up by their senates, on the basis of their alignment with the Network of Higher Education Institutions and Study Programmes. Based on the received requests, ASHE issued 42 positive opinions and two negative opinions on the justifiability of public funding in 2016.

Most new university study programmes are delivered in the area of biomedicine and health, followed by the social sciences, humanities and technical sciences.

External quality assurance audit of higher education institutions

In January 2017, the first cycle of external quality assurance audit of Croatian higher education institutions was completed, assessing the effectiveness and the degree of development of HEIs' quality assurance systems, as well as their contribution to continuous improvement of the overall institutional quality. During the first cycle, the procedure was carried out at the level of universities and polytechnics, as well as some university constituents and colleges that had the preconditions necessary for its implementation. A total of 40 audit procedures have been carried out; 39 in the Republic of Croatia and one abroad.

Audit procedure identifies good practice of higher education institutions in terms of institutional quality assurance, but also areas where further improvements are needed, providing recommendations thereof.

The annual Plan of external quality assurance audits for 2015 included the following institutions:

- 1. Polytechnic of Međimurje in Čakovec;
- 2. Velika Gorica Polytechnic;
- 3. Polytechnic of Karlovac;
- 4. Polytechnic of Slavonski Brod;
- 5. Academy of Applied Arts, University of Rijeka;
- **6.** Faculty of Humanities and Social Sciences, Josip Juraj Strossmayer University of Osijek.

²All public scientific institutes and all scientific organizations founded by the Republic of Croatia may start carrying out a scientific activity, or enter such activity in the court register only on the basis of the license for carrying out a scientific activity. Private scientific organizations may also seek accreditation to perform a scientific activity. The license for performing a scientific activity is a prerequisite for receiving state funding for research and research projects.

All site-visits were carried out within the agreed dates, except for the Polytechnic of Međimurje in Čakovec that asked for a postponement, requesting that a site-visit be re-scheduled for January 2016, which was granted. All the procedures were completed by January 2017.

Audit procedures were carried out without appeals, and final assessments of the evaluated QAs are presented in Table 1.

HEI	ESG 1.1.	ESG 1.2.1.	ESG 1.2.2.	ESG 1.3.	ESG 1.4.	ESG 1.5.	ESG 1.6.	ESG 1.7.	Overall assessment of QA system:
Polytechnic of Međimurje in Čakovec	Initial/ developed phase	Initial/ developed phase	-	Developed phase	Developed phase	Developed phase	Developed phase	Developed/ advanced phase	Initial/developed phase
Velika Gorica Polytechnic	Developed/ advanced phase	Developed/ advanced phase	-	Developed phase	Developed phase	Developed/ advanced phase	Advanced phase	Advanced phase	Developed/advanced phase Certificate
Polytechnic of Karlovac	Initial/ developed phase	Initial/ developed phase	Initial/ developed phase	Initial/ developed phase	Initial/ developed phase	Initial/ developed phase	Initial/ developed phase	Initial/ developed phase	Initial/developed phase
Polytechnic of Slavonski Brod	Initial/ developed phase	Developed phase	-	Developed phase	Developed phase	Developed phase	Developed/ advanced phase	Developed/ advanced phase	Developed phase Certificate
Academy of Applied Arts, University of Rijeka	Initial phase	Initial/ developed phase	Initial/ developed phase	Developed phase	Developed phase	Initial/ developed phase	Initial/ developed phase	Developed phase	Initial/developed phase
Faculty of Humanities and Social Sciences, Josip Juraj Strossmayer University of Osijek	Developed phase	Developed phase	Developed phase	Developed phase	Advanced phase	Developed phase	Developed/ advanced phase	Advanced phase	Developed phase Certificate

Table 1: Level of development of evaluated QAS at HEIs included in Plan of external QA audits for 2015

"You are always welcome at our Faculty; we consider you a part of our community."

prof. dr. sc. Loretana Farkaš, dean of the Faculty of Humanities and Social Sciences, Josip Juraj Strossmayer University of Osijek

Three out of six HEIs' QAS audited in 2015 - that of Velika Gorica Polytechnic, Polytechnic of Slavonski Brod and Faculty of Humanities and Social Sciences, Josip Juraj Strossmayer University of Osijek - were assessed as developed, thus meeting the requirements for ASHE certificate, valid for a period of five years.

The remaining three HEIs included in the 2015 Annual plan did not meet the requirements for certification, and the Accreditation Council adopted panels' recommendation for a re-audit or a re-accreditation of these institutions in the following period.

Analysis of the final assessments of evaluated quality assurance systems by individual ESG standards shows that Standard 1.1, policies and internal cohesion of the quality assurance system, and 1.2, quality assurance of study programmes, still represent the greatest challenge for higher education institutions.

ASHE continued to collect feedback from the evaluated HEIs and panel members that carried out the procedures on their overall satisfaction with audit procedure, using the information for improvements. Data presented here applies to all HEIs that have been audited so far, with the exception of Polytechnic of Međimurje in Čakovec (since the procedure ended in mid-January 2017, feedback from this institutions has not yet been collected).

"Thank you for wonderful cooperation and company."

Nina Puhač Bogadi, member of the Expert Panel

Survey analysis shows that HEIs are generally satisfied with the implementation of the procedure, and find the expert panels professional and benevolent in their judgement. Suggestions for improvement include additional thematic workshops on quality assurance for management and QA units at HEIs. Regarding the role of audit committees, HEIs believe that they should be focused less on control and more on providing help. The average grade of HEIs' overall satisfaction with the audit procedure is 4.45.

Panel members assessed the procedure with a high average grade of 4.88, particularly commending the quality and cooperation of audit teams, as well as excellent organisation, communication and support provided by ASHE coordinator during the procedure. Panel members find audit procedure to be of great importance for the improvement of the quality of study at Croatian HEIs, and for development of internal quality culture; there have, indeed, been a number of positive changes since the beginning of the first evaluation cycle. Panel members' recommendations for improvement relate to the insufficient involvement of all the members of an audit team in drafting of the final audit report. In March 2016, the QA audit of the International School for Social and Business Studies (ISSBS) Celje, Slovenia was completed. The pilot procedure was launched in September 2014, at the request of ISSBS, as the first ASHE evaluation abroad. The procedure was carried out and completed in accordance with international standards, ASHE Audit Criteria and specific national context of higher education and science in the Republic of Slovenia. A satisfaction survey of the audited HEI resulted in an average grade of 4.37; ISSBS pointed out that the audit procedure provided them with a helpful insight into strengths and weaknesses of their quality assurance system. Panel members assessed the procedure with the average grade of 4.61.

During 2016, ASHE produced and published a draft Meta-evaluation of external quality assurance audits in the period 2010-2015, compiling data from all the procedures (i.e. annual meta-evaluations) completed so far. With the completion of the remaining procedures, Meta-evaluation will be updated and published, providing an overview of the achievements in the development of internal quality assurance at the national level, as well as the interrelation between internal and external quality assurance, and impact thereof on the development of the higher education at institutional and national level.

ASHE continues to collect data on development of institutional quality culture at Croatian HEIs and produces analyses of the established quality assurance systems.

Analysis of the 2016 survey showed that:

- there are 149 quality assurance units established at higher education institutions
- there are 150 QA regulations adopted

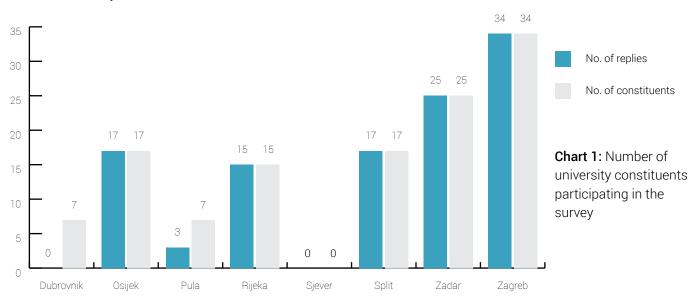
- there are 132 QA manuals adopted
- 105 internal quality assurance audits were carried out at HEIs.

Name of the University	QA regulations document	QA manual	Internal audit carried out	Audit report
Josip Juraj Strossmayer University of Osijek	Ordinance on the Quality Assurance System at the Josip Juraj Strossmayer University of Osijek	Josip Juraj Strossmayer University of Osijek Quality Manual	YES	YES
Juraj Dobrila University of Pula	Ordinance on the Quality Assurance and Improvement System at the University of Juraj Dobrila in Pula	University of Juraj Dobrila in Pula Quality Manual	YES	YES
University North	Regulations on Quality Assurance System	Quality Assurance Manual	YES	NO
University of Dubrovnik	Regulations on System of Quality Assurance and Improvement at the University of Dubrovnik	Quality Assurance Manual	YES	YES
University of Rijeka	Ordinance on the Quality Assurance and Improvement System at the University of Rijeka	University of Rijeka - Manual for Quality Studying	YES	YES
University of Split	Regulations on the Quality Assurance System at the University of Split	Quality Assurance Handbook of the University of Split	YES	YES
University of Zadar	Ordinance on the Quality Assurance and Improvement System at the University of Zadar	Manual of Quality at the University of Zadar	YES	YES
University of Zagreb	Ordinance on the Quality Assurance System at the University of Zagreb	University of Zagreb Quality Assurance Manual	YES	YES

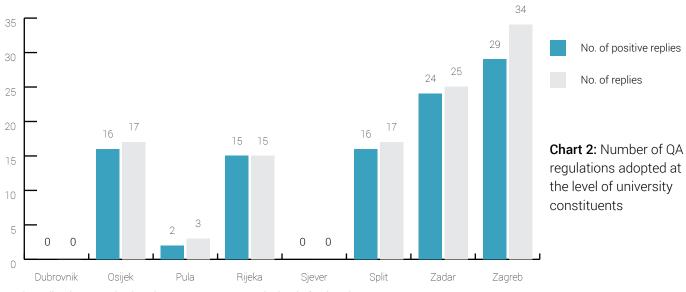
 Table 2: Basic indicators of QAS at public universities

The following charts show the basic data for university constituents, polytechnics and colleges:

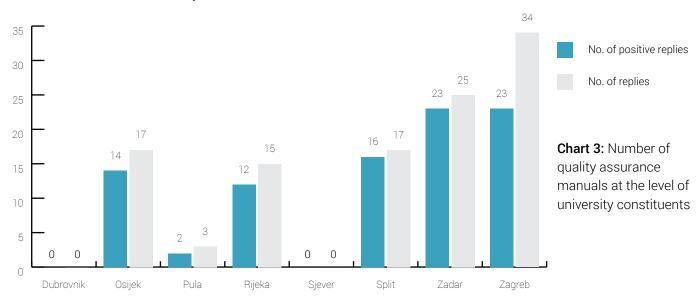
University constituents



QA regulations - university constituents

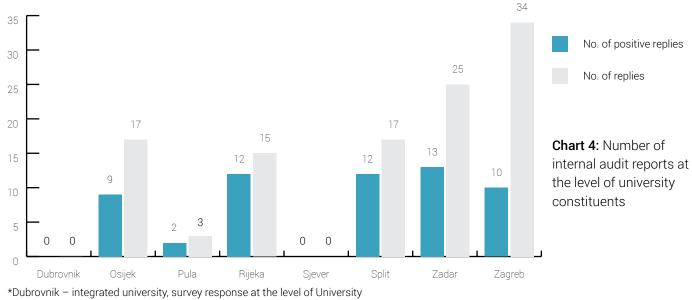


*Dubrovnik – integrated university, survey response at the level of University *Sjever – integrated university, survey response at the level of University



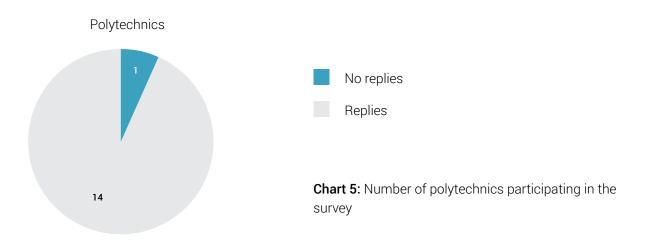
QA manuals - university constituents

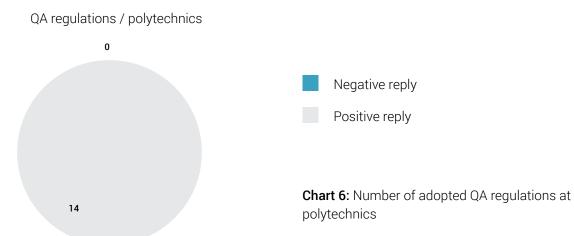
Internal audit reports - university constituents

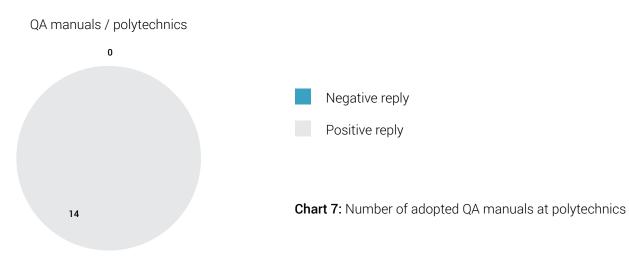


*Sjever - integrated university, survey response at the level of University

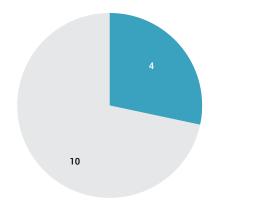
Polytechnis' survey analysis







Internal QA audit reports / polytechnics



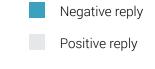


Chart 8: Number of internal QA audit reports at polytechnics

Analysis of the survey of QAS at colleges

22

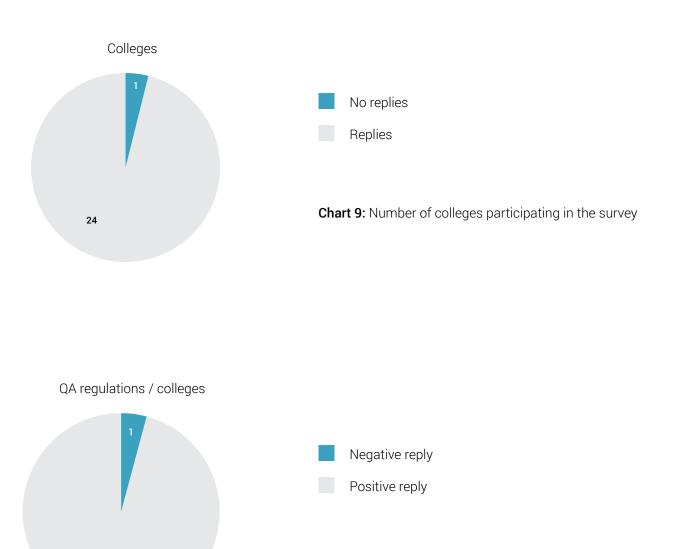
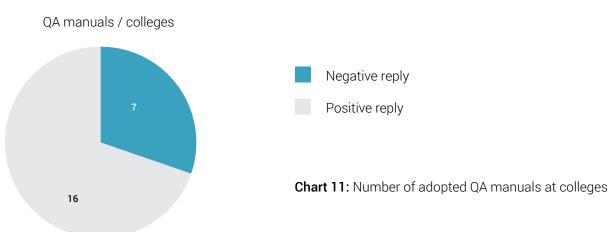
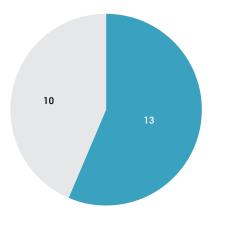


Chart 10: Number of adopted QA regulations at colleges



Internal QA audit reports / colleges



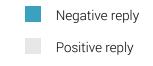


Chart 12: Number of internal QA audit reports at colleges

In the spring of 2016, ASHE representatives visited all public universities in the Republic of Croatia. The purpose of this visit was to introduce and initiate adjustments to the new ESG, as well as to discuss the implementation of recommendations contained in the evaluation reports from the first evaluation cycle. A presentation titled "ESG 2015 - new opportunities and challenges" was held to the representatives of universities. These visits were also an opportunity to discuss the impact of external evaluations on the improvement of institutional quality and contribution to the fulfilment of HEIs' missions.

In December 2016, ASHE held a kick-off meeting of the national network of quality assurance units at higher education institutions (CroQAnet). The meeting was attended by more than 80 participants, representatives of universities, polytechnics and colleges from all across Croatia, as well as by representatives of student unions. The participants were presented with aims and objectives of CroQAnet network, a unique platform for exchanging experiences and best practices, which will - through regular activities - provide training opportunities and development of competencies for all QA officers tasked with improving the quality and developing quality culture at Croatian higher education institutions. The participants expressed their satisfaction with this kind of support and opportunity for professional development from ASHE.

ASHE's support to strategic and expert bodies in the system of science and higher education



One of ASHE's tasks is to provide administrative and expert support to the National Council for Science, Higher Education and Technological Development, the Council of Polytechnics and Colleges, scientific field committees, scientific area councils and field committees, and the Committee for Ethics in Science and Higher Education. All this represents an added value as it enables collecting and linking information and data related to the improvement of the quality of higher education and science in Croatia.

The National Council for Science, Higher Education and Technological Development

In 2016, the Agency continued to ensure the successful work of the National Council for Science, Higher Education and Technological Development (NCSHETD), the most prominent professional body concerned with the development and quality of scientific activity and the system of science, higher education and technological development in the Republic of Croatia.

ASHE provided administrative and professional support to the work of the Council by preparing the necessary materials and data for Council sessions, as well as drafting minutes, proposals, comments, decisions and conclusions with regard to the: 2015 Annual report; opinions of committees for the restructuring of public research institutes and research transformation of public universities; reports on the work of centres of research excellence; issuing consent for the delivery of integrated study programmes; issuing consent for the delivery of professional study programmes at universities; issuing consent for the delivery of online study programmes; recognition of professional study programme

qualifications; Ordinance on the amendment of Ordinance on Scientific and Art Areas, Fields and Branches; activities related to drafting of the new Ordinance on Criteria for Appointment to Scientific Grades; issuing opinions on meeting criteria for teaching excellence with regard to the extension of the employment contracts (for employees over the age of 65); issuing opinion on consent for the implementation of the part of the procedure of appointment to scientific grades, and discussing and issuing opinion on the statutes of public scientific institutes for which a consent was requested from NCSHETD.

The Council held five sessions from January to December 2016.

Scientific area councils and council for arts

Scientific area councils are responsible for the matters within the competence of the National Council for Science, Higher Education and Technological Development, in relation to scientific and artistic areas.

The councils' sessions were organised and coordinated by ASHE. Of the seven sessions held in 2016, one session was held by each of the following: the Scientific Area Council for Natural Sciences, the Scientific Area Council for Biomedicine and Health, the Scientific Area Council for Biotechnical Sciences, the Scientific Area Council for the Social Sciences, and Artistic Area Council. The Scientific Area Council for the Humanities held two sessions in 2016.

Scientific field committees

During 2016, the Agency continued supporting the 23 scientific field committees that participate in the procedure of appointment to scientific grades.

In 2016³, scientific field committees appointed by NCSHETD (2013-2017 mandate) continued to carry out the procedure of appointment to scientific and artisticteaching grades (Scientific Field Committee for Arts), as well as the procedure of determining criteria for scientific/ artistic excellence in the selection procedure for the conclusion of employment contracts for employees over the age of 65.

During 2016, a total of 94 sessions were held, with 1243 decisions passed, of which 1171 (94.2%) positive decisions on appointment to scientific grades or artistic-teaching grades, 60 negative decisions on appointment to scientific grades and 12 negative decisions on appointment to artistic-teaching grades (a total of 5.8% negative decisions).

Data indicate that the largest number of decisions on appointment to scientific grades was passed by the Scientific Field Committee for Biomedicine and Health fields of Fundamental Medical Sciences, Clinical Medical Sciences, Public Health and Health Protection, Dentistry and Pharmacy (16.9% of the total number of procedures), followed by the Scientific Field Committee for Social

³Work of the scientific field committees is in accordance with the Act on Scientific Activity and Higher Education (OG 123/03, 198/03, 105/04, 174/04, 02/07 Decision of the Constitutional Court 46/07, 45/09, 63/11, 94/13, 139/13, 101/14 and 60/15), General Administrative Procedure Act (OG 47/09), Ordinance on Criteria for Appointment to Scientific Positions (OG 84/05, 100/06, 138/06, 120/07, 71/10, 116/10 and 38/11), Ordinance on Constitution and Activities of Scientific Area Councils and Scientific Field Committees (OG 76/05, 118/05, 55/09, 38/10, 40/11, 123/12, 32/13 and 34/13), and Ordinance on Scientific and Artistic Areas, Fields and Branches (OG 118/09, 82/12, 32/13, 34/16). Sciences - field of Economics (8.12%), and the Scientific Field Committee for Arts - fields of Dramatic Arts (theatre and media), Film Arts (film, electronic and media art of motion pictures), Music Art, Visual Art, Applied Arts, Dance Art and Art of Movement (7.4%).

The number of appointments to scientific grades upon individual request in 2016 was 886, while those implemented on the basis of a public call amounted to 357. In percentage terms, 71.28% appointments to grades were carried out upon individual request, and 28.72 % on the basis of calls.

According to the statistical data on all the procedures and for all scientific field committees, in 2016 there were 675 appointments into the grade of Scientific Associate, 246 into the grade of Scientific Associate, and 170 into the grade of Scientific Advisor. For the Scientific Field Committee for Arts - Dramatic Arts (theatre and media), Film Arts (film, electronic and media art of motion pictures), Music Art, Visual Art, Applied Arts, Dance Art, Movement Art, i.e. the procedure of appointment to artistic-teaching grade, there were 38 appointments into the grade of Assistant Professor, 27 into the grade of Associate Professor, 10 into the grade of Full Professor and 17 into the grade of Full Professor with tenure.

Within the procedure of determining criteria for scientific/ artistic excellence in the selection procedure for the conclusion of employment contracts for employees over the age of 65, scientific field committees have in 2016 issued 23 positive decisions (of which 13 in the field of arts) and two negative decisions on meeting the criteria for scientific excellence.

In line with the Act on Scientific Activity and Higher Education (OG 123/03, 198/03, 105/04, 174/04, 02/07,

46/07, 45/09, 63/11, 94/13, 139/13, 101/14 and 60/15), a total of 56 procedures of appointment to scientific grades were conducted, resulting in 30 positive and 22 negative decisions thereof.

- Pursuant to Article 32, Paragraph 7 of the Act on Scientific Activity and Higher Education (appointment to a higher scientific grade no sooner than three years following a previous appointment), a total of 49 procedures were conducted, resulting in 28 positive and 21 negative decisions.
- Pursuant to Article 32, Paragraph 8 of the Act on Scientific Activity and Higher Education (appointment to scientific grade of applicants who were not employed in the Republic of Croatia, but the procedure was requested on the grounds of them having met the equivalent requirements abroad), a total of 3 procedures of appointment to scientific grades were conducted, resulting in 2 positive and 1 negative decision thereof.

Data show equal representation of genders in the conducted procedures for all scientific field committees, apart from the Scientific Field Committee for Arts.

- A total of 547 procedures (resulting in 539 positive and 35 negative decisions) were carried out for male, and 577 (552 positive and 25 negative decisions) for female researchers.
- The Scientific Field Committee for Arts carried out a total of 61 procedures of appointment to artisticteaching grade for male artists (57 positive and 4 negative decisions) and 31 procedures for female artists (23 positive and 8 negative decisions).

In the last two years, the scientific field committees participated in the introductory public review and

preparation of the Draft Ordinance on the Conditions of Appointment to Scientific Grades, resulting in a number of suggestions and recommendations. Between April and June of 2016, the scientific field committees took part in the official public review with regard to the proposal of the new Ordinance.

	Number of sessions held in	POSITIVE DECISIONS		NEGATIVE DECISIONS				TOTAL				
	2016	scientific grades										
Scientific field committee (SFC)		research associate	senior research associate	research advisor	research advisor with tenure	research associate	senior research associate	research advisor	research advisor with tenure	TOTAL POSITIVE	TOTAL NEGATIVE	TOTAL
SFC Biology	3	22	7	3	0	0	1	2	0	32	3	35
SFC Physics	5	19	6	4	0	0	1	4	0	29	5	34
SFC Geology	3	9	6	6	0	0	0	0	0	21	0	21
SFC Chemistry	4	16	8	5	0	0	1	0	0	29	1	30
SFC Mathematics	3	20	9	7	0	0	1	0	0	36	1	37
SCF Architecture and Urbanism, Geodesy and Civil Engineering	3	23	7	1	0	0	1	2	0	31	3	34
SFC Electrical Engineering and Computing	3	21	22	13	0	1	0	1	0	56	2	58
SFC Chemical Engineering, Mining, Geology and Petroleum Engineering, Metallurgy, Textile Technology and Graphic Technology	4	23	3	17	0	0	0	5	0	43	5	48

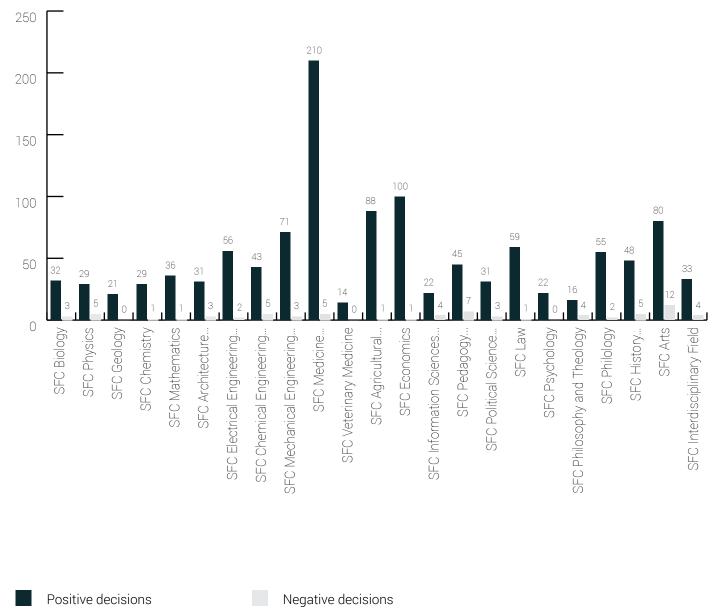
	Number of	POSITIVE DECISIONS				NEGATIVE DECISIONS				TOTAL			
	sessions held in 2016		scientific grades				scientific grades						
Scientific field committee (SFC)		research associate	senior research associate	research advisor	research advisor with tenure	research associate	senior research associate	research advisor	research advisor with tenure	TOTAL POSITIVE	TOTAL NEGATIVE	TOTAL	
SFC Mechanical Engineering, Shipbuilding, Traffic and Transport Technology, Aviation, Rocket and Space Technology	4	48	11	12	0	2	0	1	0	71	3	74	
SFC Fundamental Medical Sciences, Clinical Medical Sciences, Public Health and Health Protection, Dentistry and Pharmacy	7	140	36	34	0	2	0	3	0	210	5	215	
SFC Pedagogy, Educational and Rehabilitation Sciences, Logopedics and Kinesiology	5	20	17	8	0	4	3	0	0	45	7	52	
SFC Veterinary Medicine	4	8	5	1	0	0	0	0	0	14	0	14	
SFC Agricultural Sciences, Forestry, Wood Technology, Biotechnology, Food Technology and Nutrition	4	52	22	14	0	0	0	1	0	88	1	89	
SFC Economics	6	63	29	8	0	0	1	0	0	100	1	101	
SFC Information and Communication Sciences	3	16	4	2	0	3	0	1	0	22	4	26	

	Number of sessions held in	POSITIVE D		POSITIVE DECISIONS			NEGATIVE DECISIONS				TOTAL		
	2016	scientific grades				scientific grades				TOTAL			
Scientific field committee (SFC)		research associate	senior research associate	research advisor	research advisor with tenure	research associate	senior research associate	research advisor	research advisor with tenure	TOTAL POSITIVE	TOTAL NEGATIVE	TOTAL	
SFC Political Science, Sociology, Demography, Social Work and Security and Defence	5	20	6	5	0	3	0	0	0	31	3	34	
SFC Law	5	37	14	8	0	1	0	0	0	59	1	60	
SFC Psychology	3	13	4	5	0	0	0	0	0	22	0	22	
SFC Philosophy and Theology	3	13	1	2	0	0	4	0	0	16	4	20	
SFC Philology	5	34	15	6	0	1	0	1	0	55	2	57	
SFC History, Art History, Art Science, Archaeology, Ethnology and Anthropology	3	35	7	6	0	3	0	2	0	48	5	53	
SFC Interdisciplinary Field	4	23	8	2	0	1	2	1	0	33	4	37	
TOTAL	89	675	247	169	0	21	15	24	0	1091	60	1151	

Table 3: Sessions held and decisions adopted by scientific field committees in 2016

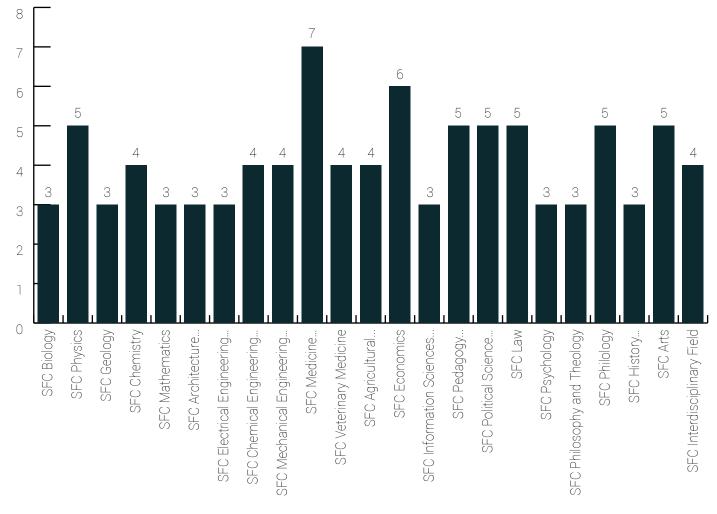
		POSITIVE DECISIONS				NEGATIVE DECISIONS				TOTAL		
	Number of sessions held in 2016	art	istic-teac	hing gra	ides	artistic-teaching grades			des	TOTAL POSITIVE	TOTAL NEGATIVE	TOTAL
		assistant professor	associate professor	full professor	full professor with tenure	assistant professor	associate professor	full professor	full professor with tenure			
SFC Arts: Dramatic Arts (theatre and media), Film Arts (film, electronic and media art of motion pictures), Music Art, Visual Art, Applied Arts, Dance Art, Movement Art	5	29	24	10	17	9	3	0	0	80	12	92

 Table 4: Sessions held and decisions adopted by scientific field committees in 2016 - artistic-teaching grades



Positive and negative decisions of scientific field committees in 2016

Chart 13: Total number of sessions held by scientific field committees in 2016



Number of sessions held in 2016

Chart 14: Number of sessions held in 2016

The Council of Polytechnics and Colleges

The Council of Polytechnics and Colleges is a body in charge of decision-making on the issues of common interest for the activities and development of polytechnics and colleges. Its members are deans of all polytechnics and colleges in Croatia. A representative of the Rectors' Conference participates in the work of the Council without voting rights. In 2016, two colleges ceased to be members of the Council of Polytechnics and Colleges, and one new member was admitted; thus, the Council of Polytechnics and Colleges currently comprises 39 members, of which 15 polytechnics and 24 colleges.

ASHE organised six sessions of the Council of Polytechnics and Colleges in 2016.

In terms of international cooperation, the Council of Polytechnics and Colleges, being a member of the European Association of Institutions in Higher Education (EURASHE), is partner in two Erasmus+ projects: Building Professional Higher Education Capacity (BuildPHE) and Strengthening Professional Higher Education and vocational education and training in Central and South-Eastern Europe (PROCSEE), initiated at the end of 2015, aimed at development and strengthening of professional higher education in the European Higher Education Area.

In accordance with the Rules of Procedure, the Council of Polytechnics and Colleges started appointing standing committees tasked with providing opinions and proposals on relevant regulation, as well as performing other tasks assigned by the Council. The Committee for Communications and Public Relations is currently being established. Representatives of the Council actively participate in the work of a number of committees and working groups established for the purpose of drafting regulations and working on the overall development of higher education system.

The Council has for some years been one of the sponsors of the Higher Education and Scholarships Fair. In December 2016, the Council presented the work of its members at the Higher Education and Scholarships Fair in Sarajevo.

Field committees

Field committees of the Council of Polytechnics and Colleges have in the 2016 held 28 sessions, passing a total of 298 positive decisions on the fulfilment of criteria for appointment to teaching grades.

Field committee	Social sciences	Technical sciences	Humanities	Natural sciences	Biotechnical sciences	Biomedicine and health	Arts	Total
Number of sessions	6	4	4	4	3	4	3	28
Number of opinions	171	46	9	24	12	31	5	298
Tenured college professor	13	2	0	0	1	8	0	24
College professor	11	3	0	2	5	0	0	21
Senior lecturer	35	10	1	6	2	3	1	58
Lecturer	112	31	8	16	4	20	4	195

Table 5: Sessions held and decisions adopted by field committees in 2016⁴

In this period, the Field Committee for Humanities passed the highest number of positive opinions (171), followed by the Field Committee for Technical Sciences with 46 positive opinions and 1 opinion on meeting the criteria for teaching excellence. The highest number of positive opinions in the procedures of appointment to teaching grades (98) was passed in the field of Economics.

⁴Data do not include the number of amendments and negative opinions passed at the sessions.

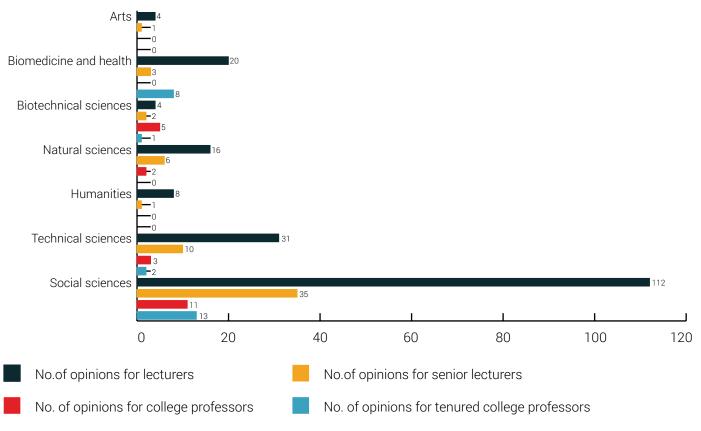


Chart 15: Positive opinions passed at the sessions of Field Committees by teaching title

During 2016, Field Committees Coordination Board held 3 sessions and passed 2 positive opinions regarding the appointment to teaching grades in the interdisciplinary field.

The Committee for Ethics in Science and Higher Education

The Committee for Ethics in Science and Higher Education⁵ is the most prominent advisory and professional body for the promotion of ethical principles and values in science and higher education, business, public relations, application of modern technology, and environmental protection.

The Committee for Ethics in Science and Higher Education held ten sessions in 2016. The Committee discussed and passed opinions on individual cases of suspected violation of ethical principles by previously requesting comments from the ethics committees of higher education institutions in which suspected cases of violation occurred.

In 2016, one of the Committee members participated in the meeting of the European Network of Research Integrity Offices (ENRIO), a platform for exchange of experience from different European countries regarding ethical issues in scientific research.

The Committee is currently preparing an annual report that will, in accordance with the Act on Scientific Activity and Higher Education, be submitted to the Croatian Parliament.

⁵Composition, role and scope of work of the Committee are defined by Article 112 of the Act on Scientific Activity and Higher Education (OG 123/03, 198/03, 105/04, 02/07 - Decision of the Constitutional Court 46/07, 45/09, 63/11, 94/13, 139/13, 101/14 and 60/15 - Decision of the Constitutional Court).

Applications to study programmes in Croatia

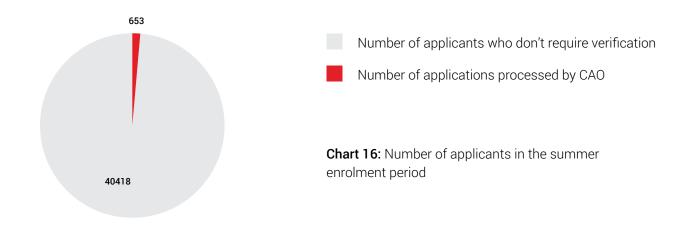


Applications to undergraduate and integrated study programmes

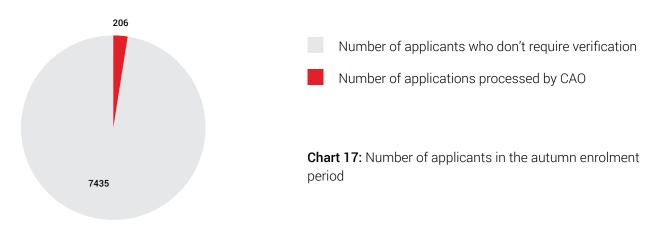
Applications to undergraduate and integrated study programmes in the summer enrolment period began on the 7th January 2016 and lasted until 18th July 2016, when the final ranking lists for enrolment into study programmes were announced.

A total of 40,418 candidates had made an application to study programmes at the moment when ranking lists for the summer enrolment period were made public. Central Applications Office (CAO) received and processed documents from 653 candidates, of whom 135 finished their secondary education outside Croatia, in countries with different grading systems. Processing those applications included filing documents, making sure that documentation is valid and complete, and thorough checking and verifying of candidates' personal data and grades entered into the system. In the autumn application period, which lasted from 22nd July until 20th September 2016, CAO received and processed 206 candidates' documents, of whom 17 finished their secondary education outside Croatia.

Number of applicants - summer enrolment period

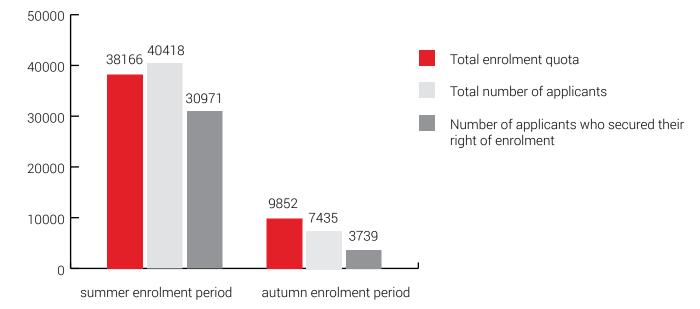


Number of applicants - autumn enrolment period



CAO also received 128 substantiated requests for advanced enrolment, and entered the 101 valid ones into the system.

In the summer enrolment period, there were 38,166 slots available at Croatian higher education institutions. Out of the total of 40,418 applicants, 30,971 or 77% secured their right to enrol in a study programme. CAO recorded 200,341 applications to study programmes, or 4.7 applications per candidate. In the autumn enrolment period there were 9852 slots left at higher education institutions. Out of the 7435 applicants who competed for enrolment, 3739 or 50% secured their right to enrol. CAO recorded 28,363 applications to study programmes, or 3.8 applications per candidate.



Undergraduate study programmes

Chart 18: Number of applicants who secured their right of enrolment - undergraduate study programmes

During the entire year, CAO replied to applicants' queries, responding to 13,031 telephone queries, 1253 e-mail queries and 2564 queries submitted via the form available on the website Studij.hr. Also, CAO staff regularly updated information on the Studij.hr website, in both Croatian and English.

"Thank you so much for the effort you made and the speed with which you sent us the required information."

dr. sc. Renata Burai, University Centre for Croatian Studies, University of Zagreb

During 2016, CAO continued working on the system for centralised applications to undergraduate study programmes (NISpVU2).

Applications to graduate study programmes

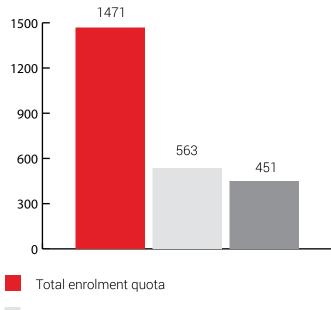
In 2016. CAO continued to administer centralised application to graduate studies through the National System of Applications to Graduate Studies (NISpDS). Applications took place between the 1st July 2016 and 30th September 2016, when the final ranking lists for enrolment into graduate study programmes were published. The centralised application covered the Juraj Dobrila University of Pula, the Croatian Catholic University, Međimurje Polytechnic in Čakovec, RRIF College for Financial Management, Polytechnic "Marko Marulić" in Knin, Baltazar Polytechnic in Zaprešić, Polytechnic of Požega, Polytechnic of Šibenik, College of International Relations and Diplomacy Dag Hammarskjöld and College Algebra. There was a total of 1471 slots, and CAO received and processed 137 sets of documents from 563 applicants, of whom 451 or 80% secured their right to enrolment.

Number of applicants - graduate study programmes



Chart 19: Candidates who applied for graduate study programmes via NISpDS

Graduate study programmes



Total number of applicants

Number of applicants who secured their right of enrolment

Chart 20: Enrolment quota, number of applicants and secured rights to enrol in graduate study programmes

Support for higher education institutions

As part of the support it provides to higher education institutions every year, CAO again informed the coordinators about all necessary activities in NISpVU and NISpDS, and replied to their queries. In 2016, CAO received 600 telephone and 800 email queries from coordinators. From January to March, CAO was holding trainings for graduate study programme coordinators in Zagreb, Zadar, Šibenik, Pula and Osijek.

In 2016, CAO held a meeting with members of the Committee for Improving the Enrolment Procedure to Higher Education Institutions, which was also attended by representatives of the Ministry of Science and Education, with the aim of harmonising all activities and deadlines and developing the necessary recommendation for the application to higher education institutions.

Applications for enrolment in the first grade of secondary schools

Last year, CAO continued to take part in the process of application to the first grade of secondary schools in the Republic of Croatia by processing applications of candidates outside the regular education system in Croatia. CAO processed documents of 593 candidates in the summer enrolment period, and the documents of 231 candidates in the autumn enrolment period.

Monitoring graduate employability and researching student experience

In 2016, CAO continued to participate in the project of monitoring graduate employability. The aim of the project is to collect data on the transition to the labour market directly from the graduates. The data will be collected through a survey of graduates of undergraduate and graduate study programmes. For that purpose, in June CAO issued a call for cooperation to all Croatian higher education institutions. The higher education institutions that agreed to take part in the project collected contact information of all graduates and sent them to CAO by the end of 2016.

In October 2016, CAO began to investigate certain aspects of the student experience in the generation of students who enrolled in the academic year 2012/2013 to undergraduate and integrated study programmes. The research was done via an online survey, and the results are still being processed.

ASHE is active in the Forum for Lifelong Professional Guidance and Career Development, which is developing the Operational Plan for the implementation of the Strategy for Lifelong Guidance and Career Development in the Republic of Croatia 2016-2020. In order to coordinate the network of units for professional guidance at higher education institutions, ASHE conducted a survey on the establishment of professional guidance services (career centers) for students and employees of higher education institutions, the types of services provided and their developmental needs, and is planning to organise seminars for HEI management and career counsellors with the aim of exchanging experiences, knowledge and examples of good practice.

Recognition of foreign higher education qualifications



Recognition is a formal acknowledgment of the value of a foreign education qualification or period of study, issued by the competent authority, for the purpose of the continuation of education or employment. ASHE, or rather its ENIC/NARIC Office, conducts the procedure of professional recognition of foreign higher education qualifications for the purpose of employment in Croatia.

National ENIC/NARIC Office

ASHE's National ENIC/NARIC Office is an information centre for academic mobility and recognition of foreign higher education qualifications. The Office is an active member of the European Network of National Information Centres on recognition and mobility (ENIC/NARIC) and takes regular part in the Network's meetings and online discussions, and is a partner in a number of European projects.

NARIC network (*National Academic Recognition Information Centres*) was founded on the initiative of European Commission with the purpose of improving of academic recognition of qualifications in member states of European Union, European Economic Community (European Economic Area, EEA) and joint members of Central and Eastern Europe and Cyprus. ENIC network (European Network of National Information Centres on academic recognition and mobility) was founded by the Council of Europe and UNESCO for the purpose of academic mobility and quality application of principles of the Convention on Recognition of Higher Education Qualifications in Europe (so called Lisbon Convention). The network consists of information centres of the member states of European Cultural Convention or UNESCO Europe Region, with

government bodies as their founders. The aim of the Network is to encourage academic mobility.

"My sincere thanks for your professionalism and a truly fast recognition procedure."

Sabina Hranić

In 2016, the Office took part in a number of activities aimed at supporting the strategic goals of encouraging and facilitating academic and professional mobility of students and professionals in Europe and beyond, thus also contributing to the development of a quality assurance platform for all levels of education.

The Office activities, especially the procedure of recognition of foreign higher education qualifications, are based on guidelines and criteria derived from European public policies for fostering the recognition of foreign qualifications, whereby the Office is doing its part to encourage mobility.

Recognition of foreign higher education qualifications

The National ENIC/NARIC Office provides assistance to institutions and experts responsible for the recognition and validation of qualifications of different levels and types of education, training and professional development, as well as to staff working in human resources, thereby supporting the education policy of lifelong learning. In 2016, special attention was devoted to the recognisability of the diversity of information it provides in connection with the recognition of foreign qualifications in Croatia, but also the recognition of Croatian qualifications abroad.

For that purpose, the Office regularly issues clarifications that contain all the information on the status of a higher education qualification in the country of origin, as well as an opinion on the comparability of a foreign educational level to the levels of education in Croatia by using relevant European mobility instruments which increase the visibility of foreign qualifications (qualification frameworks, diploma supplement, etc.). In this way, the National ENIC/NARIC Office helps employers with hiring decisions and higher education institutions with the process of enrolment to study programmes, which is in line with the European best practice on the recognition of foreign higher education qualifications.

The Office also conducts the procedure of professional recognition of foreign higher education qualifications and, upon request from HEI's Offices for Academic Recognition of Foreign Higher Education Qualifications, participates in academic recognition by issuing advice for the recognition of qualifications and periods of study abroad.

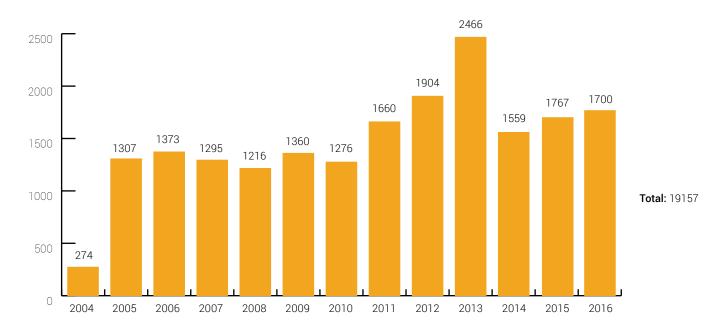
In addition to providing expertise in administrative procedures and issuing advice and clarifications, the Office daily replies to questions from foreign and Croatian physical and legal persons interested in national and foreign education systems and national and foreign higher education programmes and qualifications.

In 2016, the National ENIC/NARIC Office:

- Fully recognised 1700 higher education qualifications for the purpose of accessing the labour market;
- Responded to 156 requests for advice in academic

recognition of foreign higher education qualifications;

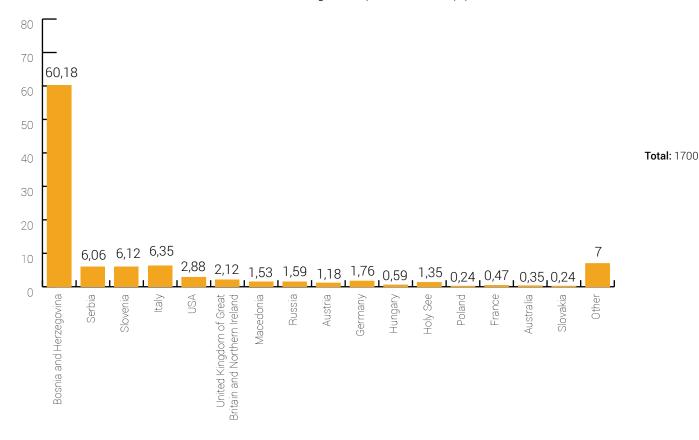
- Issued 103 clarifications of Croatian and foreign higher education qualifications;
- Replied to more than 2900 e-mail queries on professional recognition of foreign higher education qualifications in Croatia and abroad, as well as on foreign and Croatian higher education systems and foreign and Croatian higher education study programmes and qualifications.



Number of requests for the recognition of foreign higher education qualifications

Chart 21: Number of requests for the recognition of foreign higher education qualifications between 2004 and 2016.

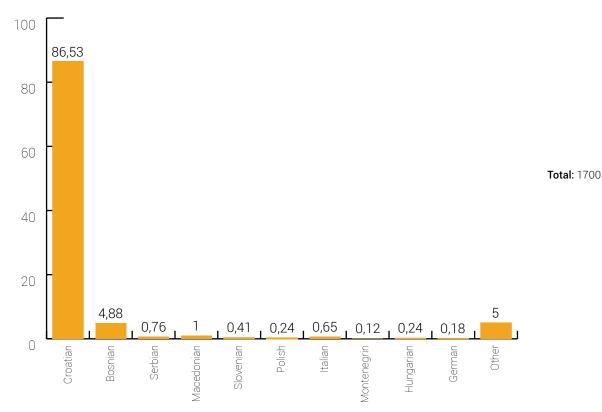
Most of submitted foreign higher education qualifications were obtained in some of the neighbouring countries, mainly in Bosnia and Herzegovina which accounts for more than 60% of the total number of applications in 2016.



Percentage of requests in 2016 (%)

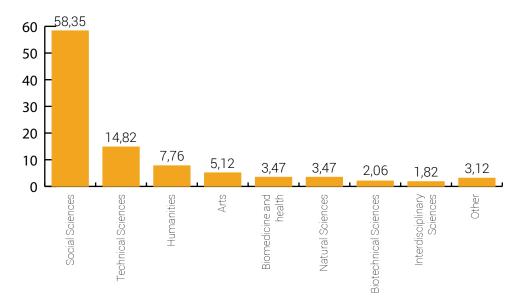
Chart 22: Percentage of foreign higher education qualifications received in 2016 by country of origin

Out of the total number of requests for the recognition of foreign higher education qualifications in Croatia in 2016, around 90% were submitted by Croatian citizens, while the remaining 10% were submitted by foreign nationals, mostly citizens of Bosnia and Herzegovina with some 5% of the overall number of requests.



Percentage of requests in 2016 (%)

Chart 23: Percentage of foreign higher education received in 2016 by applicants' nationality



Percentage of requests in 2016 (%)

Chart 24: Percentage of foreign higher education qualifications received in 2016 by scientific area

Improving the legislative framework for the recognition of foreign higher education qualifications

In 2016, the National ENIC/NARIC Office continued its active participation in the Working Group for Improvement of the Legislative Framework for Recognition of Foreign Higher Education Qualifications, and the Committee for Inter-Sectorial Coordination for Regulated Professions.

In working with these bodies, the Office provides systematic review of the issues of international qualification recognition, related processes, examples of best practice, and guidelines for practical implementation in the Croatian context, all based on years of experience in working with the ENIC/NARIC network and the Lisbon Recognition Convention Committee.

Total: 1700

In 2016, the National ENIC/NARIC Office continued working on the new Act on Recognition of Foreign Educational Qualification as part of the Working Group for Improvement of the Legislative Framework for Recognition of Foreign Higher Education Qualifications.

Moreover, the Office took part in devising a plan to align Croatian legislation on the recognition of foreign professional qualifications with the relevant amended acquis communautaire, or rather to train the administrative structure that follows the field of the recognition of foreign professional qualifications as a precondition for accessing regulated professions.

Assistance centre for providing information on the recognition of professional qualifications

With the new Act on Regulated Professions and the Recognition of Foreign Professional Qualifications coming into force, the National ENIC/NARIC Office is no longer the *National contact point* for the recognition of foreign professional qualifications, but has been renamed as the *Assistance centre for providing information on the recognition of professional qualifications*.

The Office has been continuously working on developing its role as the Assistance centre for providing information on the recognition of foreign professional qualifications which, according to the Act on Regulated Professions and the Recognition of Foreign Professional Qualifications, it had since 2009, but which was activated upon Croatia's entry into the EU.

In 2016, in accordance with the Act on Regulated Professions and the Recognition of Foreign Professional Qualifications and Directive 2005/36/EC, the Assistance centre for providing information on the recognition of foreign professional qualifications provided citizens and assistance centres of other European Economic Area (EEA) Contracting States with:

1. necessary information on the recognition of foreign professional qualifications in the Republic of Croatia – information about national legislation which governs the access to and pursuit of regulated professions, including social legislations and, if necessary, ethical rules

- 2. assistance in achieving rights arising from the Act on Regulated Professions and Recognition of Foreign Professional Qualifications
- **3.** information on regulated professions and how to access them in other EEA Contracting States
- **4.** necessary information on the Database of Regulated Professions and the recognition of foreign professional qualifications in the Republic of Croatia.

Competent authority in Croatia	Number of applications for the recognition of foreign professional qualifications (2016)
Croatian Nursing Council	51
Croatian Chamber of Civil Engineers	48
Croatian Chamber of Architects	29
Ministry of Entrepreneurship and Crafts	2
Croatian Chamber of Mechanical Engineers	8
Other	108
Total	246

Table 6: The number of requests for the recognition offoreign professional qualifications in 20166

Analytics and statistics in science and higher education



ASHE is tasked with collecting and processing data on the Croatia system of higher education and science. These tasks include updating and managing the MOZVAG information system (ASHE's evaluation module) and the related Directory of Study Programmes, which - based on information from MOZVAG - provides statistical data on accredited study programmes. MOZVAG information system is updated regularly and contains 1389 active accredited study programmes (more than 1860 study programmes in total)⁷. All higher education institutions in Croatia have an obligation to provide data on their study programmes, conditions for performing study programmes, courses and teachers.

Based on MOZVAG data, Directory of Study Programmes is maintained and updated on the Agency website, in both

Croatian and the English language. The directory provides basic information on study programmes to national and international public: names of issuing institution and programmes provider, scientific field, number of ECTS, duration of programmes, location where the programme is offered and links to the websites of relevant institutions. or study programmes. ASHE website also features the Directory of Higher Education Institutions in Croatia. In addition to listing 132 accredited higher education institutions, this Directory enables users to search according to the category and type of institution, institution location, issuing institution, and scientific area and field, and provides some basic information on the higher education institution. In this sense, Directory provides a brief overview of the higher education system in Croatia. Data from the Directory is annually provided

7According to February 2017 data

to the Institute for the Development of Education, to be published on their portal Study in Croatia, but also to numerous other public and private institutions and organisations, individual researchers, students and other members of the academic community.

Upgrading the information system

For the purpose of conducting the new cycle of evaluation, it is necessary to upgrade the existing information system so that it includes not only the existing, but also the new data necessary for conducting the external evaluation procedure. In 2016, ASHE prepared the necessary documentation for a thorough reconstruction of the information system for evaluation.

Reconstruction of the existing system will include several level that are necessary for the successful conducting of re-accreditation and initial accreditation procedures, which will lean more heavily on the data and analyses extracted from the system. In addition to the inclusion of new elements, this system upgrade would include the development of a new, more user-friendly user interface. The reconstruction would be approached in two stages. The first stage would consist of upgrading the technical foundation necessary for the functioning of the system. In the second stage, the adoption of necessary documents that regulate the external evaluation procedures would be followed by defining and developing a more advanced version of the IT module for supporting the re-accreditation procedure, which would enable ASHE to enter all the data necessary for the procedure into the system. It is especially important to emphasise that, in the new re-accreditation procedure, all quantitative data is collected through MOZVAG. The method of performing

the analyses of the fulfilment of minimal conditions will be explained, transparent and visible to higher education institutions during the entire evaluation procedure.

Since the volume of data entered into the system is larger than before, the Agency will utilise the SKAZVO project to finance the linking of ISVU (Information System of Higher Education Institutions) system and MOZVAG in order to facilitate the download of information that can be used in the Agency's evaluation procedures from the ISVU system. In other words, by connecting with the ISVU system, which is maintained and developed by the University computing centre (*Sveučilišni računski centar* -SRCE), ASHE wants to avoid the need for higher education institutions to have to enter their information into the system twice, and to enable (as much as possible) the usage of the already entered, aggregated and structured information from ISVU.



Image 2: Consultation on how to work in the MOZVAG system

During the upgrading process, ASHE will take into account users' comments and suggestions which were received through various channels of communication. Stakeholders were informed about the planned changes through consultations held in 2016 at all bigger universities. Between the 15th and the 29th November 2016, ASHE held six consultations with HEI employees appointed as MOZVAG coordinators – in Osijek, Split, Zadar, Rijeka and Zagreb. The consultations included 153 employees of Croatian HEIs with the aim of exchanging experience of working with MOZVAG as well as collecting suggestions for its improvement.

In 2016, ASHE concluded preparations for a new database (Knowledge Base), which will be available to the public and will contain examples of good practice and recommendations from all procedures conducted by ASHE. Before the end of 2016, ASHE began entering the data from the conducted re-accreditation procedures of higher education institutions.

ASHE international activities

The activities of ASHE in 2016 were again very much internationally oriented – the Agency became more recognisable beyond national borders, i.e. by international systems of higher education for its quality and it received a number of invitations to carry out reaccreditation procedures abroad (e.g. in Russia, Romania and Moldavia) and to participate in activities aimed at the strengthening of international quality assurance agencies' capacities. ASHE was also asked to join numerous international projects and take part in the development of strategic documents at the European level as well as to give talks at international conferences.

International review of ASHE

Along with the above-mentioned activities, year 2016 was particularly marked by the international review of

ASHE. The Agency for Science and Higher Education, whose task is to evaluate higher education institutions and scientific organisations and prove the credibility and quality of their work, itself has to undergo the external international review every five years in order to prove the quality of its work. This review is conducted by the European Association for Quality Assurance in Higher Education (ENQA).

Therefore, ASHE went through a very demanding procedure of international accreditation in 2016, with the purpose of renewing its full membership in ENQA a European organisation in charge of quality of higher education in the European Higher Education Area and improving quality assurance procedures. In order for the accreditation of Croatian higher education institutions to be valid in Europe and for Croatian degree certificates to be recognized abroad, an agency also has to be internationally accredited and that is why membership is very important for our Agency.

Preparations for the external review had begun already in the beginning of the year when the Agency drafted a Self-evaluation report explaining in detail ASHE's compliance with the Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) and submitting evidence thereof. Especially important is the standard related to ASHE's independence in carrying out its activities and issuing final decisions on the outcomes of evaluation procedures. The review also verified compliance with the standard related to the adequacy of the Agency's physical, financial and human resources. ASHE also had to prove that the standards related to internal quality assurance put in place by higher education institutions are taken into account in external evaluation.



Image 3: ENQA Review panel in ASHE

The accreditation procedure included an October visit from an international panel of experts chaired by Professor Jürgen Kohler, PhD, professor of law at Greifswald University, Germany, and a former president of the German Accreditation Council, the central body governing external quality assurance in higher education in Germany. During this three-day visit the panel held meetings not only with Agency employees and management, but with other stakeholders such as HEI representatives, rectors, deans, students, national and international reviewers, as well as representatives from the industry, Ministry of Science and Education, National Council for Science, Higher Education and Technological Development, and Council of Polytechnics and Colleges.

• The International Association of Admissions Organisations Conference

ASHE's Central Applications Office (CAO) hosted the Sixth International Conference of the International Association of Admissions Organisations (IAAO) in May 2016 in Cavtat. The conference was attended by representatives of 16 international admissions organisations from Australia, Canada, Denmark, Finland, Germany, Netherlands, Norway, Slovenia, Oman, Sweden and the United Kingdom. CAO's activities were presented by Igor Drvodelić, Assistant Director for Applications on Study Programmes, and two other employees, Mirko Stanić and Dario Španović. They talked about novelties at CAO and the development of new information system for application to study programmes as well as the new project elDAs in which ASHE participates as one of the partners. The project relates to the enhancement of applications system by using certificates and ensures the mobility of students across the EU with their electronic identities issued in their countries – places of residence. ASHE presentations caused great interest among the participants and many of them praised the work of ASHE in organising the conference. The conference was extremely successful both in working and organisational terms, which is a great improvement in comparison to previous conferences.

Highlighted projects

ASHE has been awarded with almost twenty million four hundred thousand Croatian Kuna for the project entitled *Improvement of Quality Assurance and Enhancement Systems in Higher Education* (SKAZVO) for the period from June 2016 to November 2018. The project is co-funded by the European Union within the Human Resources Development Operational Programme ESF (the European Social Fund) 2014 – 2020 with the aim of developing a new model of external quality assurance system of Croatian higher education institutions and study programmes. This goal will be achieved through a range of activities that will involve Agency employees and external stakeholders.

ASHE is the project leader of the project HRMinHEI (Modernisation of Higher Education Institutions through



Image 4: Signing contract for the SKAZVO

enhancement of Human Resources Management function) co-funded by the Erasmus + programme of the European Union. The project started in September 2016 and is implemented in partnership with colleagues from higher education institutions from Finland, Austria and Croatia.

The Agency is also involved in the project *Ensuring Access* to *Croatian Public e-services within e-Citizens Platform* for *EU/EEA citizens* (CEF eID) as a partner. The project aims to enable applicants to study programmes who are nationals of EU member states to apply for study programmes through the Central Government portal e-Citizens. ASHE participates in the project in the part relating to applications for study programmes through the National System of Applications to Graduate Studies (NISpDS), which falls within the scope of work of the Central Applications Office.

Documents

The Guidelines for the Development, Accreditation and Implementation of Joint Programmes in the Republic of Croatia are among the outcomes of the project Removing Obstacles for Cross-border Cooperation (ROCCO) which was developed by the Ministry of Science and Education, also involving the Agency for Science and Higher Education. The Guidelines provide higher education institutions with basic information and advice on the development, accreditation and delivery of joint programmes. They also provide an overview of the current status of crossborder cooperation in higher education with a focus on joint programmes, explain the reasons for establishing joint programmes and, by using a SWOT analysis, present challenges and opportunities emerging from them. Furthermore, the Guidelines also describe the steps preceding the accreditation of a joint programme, the initial accreditation procedure and the subsequent

programme implementation.

ASHE published the Croatian version of the document *European Approach for Quality Assurance of Joint Programmes.* The document was adopted at a conference held in May in Yerevan, Armenia, by the ministers of EHEA. The idea behind this approach is to create and implement a common framework for quality assurance of joint programmes throughout Europe. European approach is based on the *Standards and Guidelines for Quality Assurance in the European Higher Education Area* (ESG) and the Qualifications Framework for the European Higher Education Area, and its application excludes national criteria.

The ENQA's Working group on Staff Development, in which ASHE plays an active role, developed a model of unique competencies framework for staff working in the field of quality assurance in all ENQA member agencies. QA agencies may use this framework for job descriptions and training and development of their own staff. The document contains competencies of staff new to this sector, competencies of experienced professionals and a wide range of activities that can be used by the agencies in staff development (framework of all key points for professional QA staff management and development - defining the job, recruitment and selection, induction and familiarisation, development activities, performance review).

Other international activities

On the initiative of ASHE, the Directory of study programmes that contains the information regarding quality assured and accredited higher education institutions and study programmes in Croatia has been linked to the European Qrossroads database. Qrossroads presents information about accredited study programmes at higher education institutions in Europe.

The European Consortium for Accreditation (ECA), of which ASHE is also member, launched the platform *ECApedia* which provides useful information regarding European higher education, with special emphasis on quality assurance. As of May 2016, *ECApedia* contains information regarding Croatian higher education system which is updated by ASHE.

ASHE signed a cooperation agreement with CHEA (The Council for Higher Education Accreditation) International Quality Group. The purpose of the agreement is to promote partnerships with agencies and organisations dealing with accreditation and/or quality assurance and work toward a shared understanding of quality in higher education.

In 2016, the International Quality Group of the US Council for Higher Education Accreditation - CHEA/CIQG and the UNESCO International Institute for Educational Planning (IIEP) published the guidelines for effective international practice in combatting corruption in higher education and strengthening credibility of higher education entitled Advisory Statement for Effective International Practice. The intention of this document is to provide some guidelines to HEIs and the wider public for effective international practice in combatting corruption in higher education - with a special focus on the role that national quality assurance systems should play. Although the institutional guality assurance system must take a leading role in this battle, it is also important to involve a wider range of stakeholders. The document aims is to offer guidelines to the various stakeholders for effective international practice in combatting corruption in higher education with a special focus on the role that quality assurance

should play. The document lists some of the major issues for actions and indicates various stakeholders – national governments, QA agencies, HEIs, faculty and staff, students, the press, civil society organisations, employers and professional bodies which may wish to consider them. The importance of higher education as a driver of global development has never been greater and the document proposes to make the topic of academic corruption central in the discussions at both national and global levels.

Within the framework of EQUIP (*Enhancing Quality through Innovative Policy & Practice in European higher education*) project, a workshop on the revised *European Standards and Guidelines for Quality Assurance* (ESG) was held in May 2016 in Vienna. As the work of the Agency for Science and Higher Education is based on the ESG standards in addition to national regulations, ASHE representatives also participated in the workshop. Good practice in the field of implementation of revised ESG was discussed, as well as learning, teaching, student-centred learning, new methods of teaching and the improvement of the quality of study programmes. The workshop was attended by representatives of European higher education institutions, quality assurance agencies and students.

ASHE membership in international associations

ASHE is a full member of the European Association for Quality Assurance in Higher Education (ENQA), the International Network for Quality Assurance Agencies in Higher Education (INQAAHE), the Network of Central and Eastern European Quality Assurance Agencies in Higher Education (CEENQA), an international association of institutions interested in the topic of academic ranking and excellence in higher education and science - IREG Observatory on Academic Ranking and Excellence, and is included on the European Quality Assurance Register for Higher Education (EQAR). ASHE is also a member of the International Quality Group of the US Council for Higher Education Accreditation (CHEA), the European Consortium for Accreditation (ECA), an observer member of the Asia-Pacific Quality Network (APQN), and a member of the Organization for Economic Co-operation and Development Institutional Management in Higher Education (OECD IMHE) Forum. ASHE is a long-term member of European networks of national information centres on academic mobility and recognition - ENIC (European Network of National Information Centres on academic recognition and mobility) and NARIC (National Academic Recognition Information Centres) and a member of IAAO-a (International Association of Admissions Organisations).

Cooperation with international experts from the area of higher education and science and presentation of ASHE's work abroad

During 2016, ASHE hosted prominent international experts in the field of higher education and science with the aim of establishing or continuing cooperation and exchanging experience and good practice.

Representatives of the Agency for the Development of Higher Education and Quality Assurance of Bosnia and Herzegovina (HEA) visited ASHE in January 2016. The visit is the continuation of cooperation established at a meeting of regional bodies for quality assurance organized by ASHE in November 2015. The goal of the meeting was to improve cooperation through the exchange of information, experience and good practice between the two agencies. ASHE presented the activities it had undertaken within re-accreditation procedures. Participants also discussed the roles and tasks of coordinators in external evaluation procedures, the interpretation and evaluation of the fulfilment of the criteria, follow-up procedures, appeals procedures, the conditions for the launch and accreditation of doctoral study programmes and opportunities for future cooperation between the two agencies.

In April 2016, rectors of nine Estonian polytechnics visited the Agency for Science and Higher Education. The purpose of the meeting was to inform Estonian representatives about the Agency's activities and Croatia's quality assurance system, in particular with regard to polytechnics and colleges. The representatives of Estonian HEIs wanted to learn more about the criteria for evaluation of Croatian higher education institutions,

how often they have to undergo re-accreditation and other facts about Croatia's quality assurance system and the higher education system in general. ASHE staff learned about the accreditation of higher education institutions in Estonia as well as the similarities and differences between the higher education systems of Croatia and Estonia.

ASHE was visited by Professor Martin Trethewey, PhD, with a long-standing academic career at the prestigious U.S. Penn State University in October 2016, who held a presentation for ASHE employees on higher education quality assurance in the United States. Professor Trethewey stressed the importance of quality education and high expectations in terms of quality of academic staff. ASHE employees became familiar with the work of Penn State University, the process of selection of students, the system of promotion of academic staff, organization of student internships, alumni clubs, the ways the University is connected to the business sector, and the like. We learned that that institutional evaluation of quality assurance in the U.S. is carried out by the regional agency Middle States Commission on Higher Education, and that there are certain bodies for programme accreditation of certain areas. Professor Trethewey stressed that accreditation procedures contribute to better prominence and reputation of higher education institutions. ASHE employees presented the most important characteristics of the Croatian system of quality assurance and activities carried out by the Agency.

In January 2016, the Director of the Agency for Science and Higher Education, prof. dr. sc. Jasmina Havranek and the Assistant Director, mr. sc. Sandra Bezjak had a meeting with Dr. Belle S. Wheelan, President of the Southern Association of Colleges and Schools Commission on Colleges (SACS COC) in Atlanta. SACS COC is one of the six regional bodies, in charge of the



Image 5: Professor Martin Trethewey visiting ASHE

accreditation of degree-granting higher education institutions in the Southern states of the United States. Both sides shared information and experiences about accreditation as well as the existing situation and future plans for the development of accreditation models. This information will be extremely useful in the development of a new reaccreditation model which will be used in Croatia in the second re-accreditation cycle.

ASHE Director, prof. dr. sc. Jasmina Havranek joined the annual conference held by the Council for Higher Education Accreditation (CHEA), an organisation that brings together accreditation bodies in the United States held in Washington on 25th – 27th January 2016. After the conference, entitled *The Future Is Now: Where Is Accreditation*, CHEA International Quality Group (CIQG) held their Annual meeting entitled *Quality Assurance and Accreditation: Multiple Demands; Multiple Challenges.* In her plenary lecture with the title *Quality Assurance and* *Academic Corruption*, ASHE Director discussed the role of quality assurance in preventing academic corruption.

On invitation by the Penn State University, prof. dr. sc. Jasmina Havranek held a lecture in May 2016 on the *European Standards and Guidelines for Quality Assurance in European Higher Education Area* (ESG) as a tool for improvement of quality of higher education in Croatia and Europe. Professor Havranek also presented the main characteristics of Croatian higher education system and the role and activities of the Agency in the context of Croatian and international systems of higher education and science.

ASHE Vice-director, dr. sc. Vesna Dodiković-Jurković held a presentation *Institutional research – External Quality Assurance* at the workshop entitled *Institutional Research and Institutional Effectiveness* organised as a part of the *Higher Education Initiative for Southeastern Europe*, HEISEE, held in Rijeka on 23rd – 25th February 2016.

Within the scope of the SKAZVO project, co-funded from the European Social Fund, Operational Programme Efficient Human Resources of the European Union, the representatives of the Agency for Science and Higher Education paid a visit in October 2016 to the Accreditation Organisation for the Netherlands and Flanders (NVAO) and the University of Ghent. In November 2016 they visited University College Cork, Dublin City University and Irish agency for quality assurance HEA (Higher Education Authority).

International projects

	Project title	Partners besides ASHE	Coordinating institution	Project duration	EU programme/source of funding
1.	Improvement of Quality Assurance and Ehnancement Systems at Higher Education Institutions (SKAZVO)	-	ASHE	June 2016 – Nov 2018	European Social Fund
2.	Modernisation, Education and Human Rights (MEHR)	QA agencies and HEIs from Sweden, Portugal and Croatia, European Student Union	Swedish UKÄ	Sept 2016 – June 2019	Erasmus +
3.	Modernisation of Higher Education Institutions through enhancement of Human Resources Management function (HRMinHEI)	Faculty of Humanities and Social Sciences in Rijeka, Algebra University College, Danube University Krems, Austria University of Tampere, Finland	ASHE	Sept 2016 – Sept 2018	Erasmus +
4.	Strengthening Professional Higher Education and VET in Central & South Eastern Europe (PROCSEE)	European Association of Institutions in Higher Education – EURASHE, Belgium Knowledge Innovation Centre, Malta Sdruzeni profesniho terciarniho vzdelavani, Czech Rebublic National University of Political Studies and Public Administration, Romania Hungarian Rectors' Conference, Hungary	Skupnost Visjih Strokovnih Sol Republike Slovenije	Nov 2015 –	Erasmus +

	Project title	Partners besides ASHE	Coordinating institution	Project duration	EU programme/source of funding
5.	Building Professional Higher Education Capacity in Europe (BuildPHE)	Skupnost višjih strokovnih šol Republike Slovenije, Croatian Council of Polytechnics and Colleges, Czech Association of Schools of Professional Higher Education, EURASHE, The Knowledge Innovation Centre Malta, TTK University of Applied Sciences Talin	State higher vocational School in Tarnow, Poland	2016 –	Erasmus+
6.	The Changing Role of NARICs II: Stakeholder Perspective (CHARONA II)	NARIC centres	UK Naric	April 2014 - April 2016	Erasmus+
7.	Quality Assured Automatic Recognition of Foreign Higher Education Qualifications (QUASAR)	ENIC centres and universities	University of Split, ENIC/ NARIC Croatia, ASHE	July 2016 – Sept 2017	Erasmus+
8.	Information System On pre-Bologna Academic Qualifications (ISOBAQ)	NARIC centres	National Centre for Information and Documentation, Bulgaria, NACID	June 2016 – Aug 2017	Erasmus+
9.	University for recognition: facing new challenges of foreign diploma recognition (SURE)	NARIC centres	CIEPR FRA	June 2016 – Dec 2017	Erasmus+
10.	Recognition of Non-Country Specific Awards (RENSA)	NARIC centres from Malta, Ireland and Lithuania	UK NARIC	May 2016 – July 2017	Erasmus+
11.	Enhancing the use of mobility tools for recognition (EU – MTR)	HEIs, public administration and business partners from Croatia, Latvia, Lithuania, Netherlands and France	French Agency Centre international d'études pédagogiques – CIEP	May 2014 – May 2016	Erasmus+

	Project title	Partners besides ASHE	Coordinating institution	Project duration	EU programme/source of funding
12.	Focus on Automatic Institutional Recognition (FAIR)	ENIC/NARIC centres, ministries and HEIs from 6 European countries – Spain, Italy, Belgium, Germany, Netherlands and Croatia	NUFFIC, the Netherlands organisation for international cooperation in higher education	Dec 2014 – April 2017	Erasmus+
13.	Removing obstacles for cross- border cooperation (ROCCO)	University of Zadar, University of Zagreb, Faculty of Food Technology and Biotechnology	Ministry of Science and Education (MSE), Croatia	Nov 2014 — April 2016	Erasmus+
14.	Achieving and Checking the Alignment between Academic Programmes and Qualification Framework (ALIGN)	QA agencies and universities	Yerevan Brusov State University of Languages and Social Sciences	Dec 2013 - Nov 2016	TEMPUS
15.	Twinning project "Further Improvement of the System for Development and Implementation of Macedonian Qualifications Framework"	MSES, experts from Poland, Scotland and Ireland	Polish Instytut Badań Edukacyjnych Educational Research Institute, Scottish Credit and Qualifications Framework Partnership MSES	Jan 2016 – July 2017	IPA/Twinning
16.	Ensuring Access to Croatian Public e-services within e-Citizens Platform for EU/EEA citizens (CEF eID)	-	Ministry of Public Administration of the Republic of Croatia	June 2016 – June 2017	CEF program

Table 7: International projects in which ASHE participated as a coordinating institution or partner in 2016

1. The operational programme "Human Resources Development" 2014 – 2020 of the European Social Fund (ESF)

Improvement of Quality Assurance and Enhancement Systems at Higher Education Institutions - SKAZVO

The project Improvement of Quality Assurance and Enhancement Systems at Higher Education Institutions (SKAZVO) is co-funded by the European Union within the Human Resources Development Operational Programme ESF (the European Social Fund). ASHE implements the project SKAZVO (2016-2018) for the purpose of the development of a new model for external quality assurance system in Croatian higher education. The aim of the project is to develop new and improve existing external evaluation of Croatian higher education institutions and study programmes, as well as to improve the quality of study programmes and strengthen the competences of HEI staff. The project will also launch new activities such as collecting information and informing the general public about higher education, and develop the counselling services for present and future students.

AHE is currently developing the methodology and criteria for programme evaluation aligned with the ESG and CQF requirements focused on learning outcomes. It is expected that the first qualification standards will be enlisted in the Croatian Qualifications Framework Register by the beginning of 2017, which is a prerequisite for the inclusion programmes leading the the outcomes listed in the standards. It is also necessary to review the initial accreditation process that should be identical for the programmes for which qualification standards exist as well as the programmes without qualification standards. In the latter case it should be checked whether certain study programmes ensure development of competencies described in other frameworks (European, different professional frameworks) and the formal result could not be enrolment into the Register. After the re-accreditation of higher education institutions and thematic evaluation of doctoral programmes, ASHE has started the procedure of re-accreditation of doctoral programmes, upon request of the minster in charge of education, which is the first programme-level review carried out by the Agency.

As part of the project SKAZVO, under the specific objective *Improvement of external quality assurance system and ASHE internal processes*, staff of the Agency had the opportunity in year 2016 to visit QA agencies and higher education institutions in the UK, Ireland, the Netherlands and Belgium and to familiarize themselves with their quality assurance procedures and operations, as well as to present the work of the Agency and the Croatian system of quality assurance in higher education and science.

In late July, representatives of the Agency for Science and Higher Education visited the United Kingdom with the aim of exchanging experiences with three institutions in charge of collecting, distributing and analysing higher education data: HESA - Higher Education Statistics Agency, JISC and QAA - Quality Assurance Agency for Higher Education. The goal was to learn about tools and methods used in collecting, but also in the application of higher education data. The most important role in data collection is played by HESA - Higher Education Statistics Agency, which was established by the UK government in cooperation with the Higher Education Funding Council (HEFCE) and higher education institutions with the aim of providing greater transparency to the management of public funds invested in higher education. All higher education institutions that receive public funds have to send the prescribed data on their students, staff. resources and finances to the Heidi system (Higher

Education Information Database for Institutions), which is administered by HESA. The data from this system is used as the basis for decision-making by various bodies from the system of higher education (especially in matters of funding HEIs and student scholarships). Higher education institutions that are obliged to feed their data into the Heidi system also have the possibility to search the data of other HEIs in the system and draw comparisons.

In developing information tools that enable HEIs and the wider public to view and use a lot of information from the Heidi system (e.g. Heidi Lab), HESA cooperates with the non-profit organisation JISC. Information from the Heidi system is also used by UK's leading accreditation agency - QAA - Quality Assurance Agency for Higher Education - in their evaluation procedures that result in the development of profiles of higher education institutions.

Futhermore, within the scope of the same project (SKAZVO), the representatives of the Agency for Science and Higher Education payed a visit to the Accreditation Organisation for the Netherlands and Flanders (NVAO) and the University of Ghent in October 2016.

ASHE staff participated in the study visit to Ireland during the period from 22 to 25 November of 2016. They visited University College Cork (UCC), the Dublin City University (DCU) and the Higher Education Authority (HEA), the statutory planning and policy development body for higher education and research in Ireland, where they had discussions on various topics, such as quality assurance, the enhancement of teaching in higher education, the delivery of postgraduate doctoral studies and their reform, and a model of programmatic funding with representatives of higher education institutions.

2. Erasmus+ programme

Modernisation of Higher Education Institutions through Enhancement of Human Resources Management function – HRMinHEI

ASHE is the project leader of the project HRMinHEI (Modernisation of Higher Education Institutions through enhancement of Human Resources Management function) co-funded by the Erasmus + programme of the European Union.

The project started in September 2016 and it will last until September 2018. The purpose of the project is the strengthening of human resources management in higher education institutions and the development of innovative self-assessment tools for benchmarking human resources management. The kick-off meeting of HRMinHEI project was held in October 2016 at the premises of ASHE.

Two higher education institutions from Croatia - Faculty of Humanities and Social Sciences in Rijeka and University College Algebra and two foreign HEIs - Danube University Krems from Austria and the University of Tampere from Finland are ASHE's partners in this project.

There are several general objectives of the project, as follows: to improve the organizational efficiency and effectiveness of HEIs as well as to increase their global competitiveness; to encourage and improve higher education institutions' contribution to economic growth and social development by enhancing the quality of human capital development in higher education; to stimulate excellence of European HEIs staff and cooperation with the European Higher Education Area. The project outputs will be documents and tools that will benefit not only the project partners, but also higher education institutions throughout the entire European Higher Education Area:

- Review of national policies on Human Resources Management in European higher education;
- Online self-assessment tool as Open Educational Resources (OER) for the purpose of a systematic evaluation and benchmarking of Human Resources Management at European higher education institutions;
- Documented Human Resources Management processes developed at HEIs – partners in the project – as a model for other higher education institutions;
- Guidelines for the development of the Human Resources Management in HEIs in Croatia, Austria and Finland.

HRMinHEI project complements the main determinants of the Erasmus + programme and the EU Modernization Agenda for Higher Education adopted in 2011.



Image 6: Kick-off meeting of HRMinHEI project in Zagreb

Modernisation, Education and Human Rights – MEHR

The 3-year long project which started in September 2016 is building on the work of the ECA (European Consortium for Accreditation in Higher Education) Working Group 4 on the use of learning outcomes (LO) and their assessment in accreditation procedures.

Learning outcomes now feature in the quality assessment and accreditation procedures for higher education programmes in several countries. Nonetheless, the degree of implementation and embedding of learning outcomes varies widely among countries. Building on evidencebased foundation, the present project intends to develop a Quality Assurance Guide (QUAG) on assessing learning outcomes (focusing specifically on human rights topics). This will enable QAAs to undertake a self-assessment of their performance regarding the assessment of learning outcomes on human rights in their accreditation practices.

The value of the MEHR project resides in its proposed exploration of the QAAs' attention to the definition and usage of LO of human rights in higher education institutions, as revealed by their evaluative practices.

The Project consortium gathers institutions (an agency and a higher education institution) from three European countries of different size, educational traditions and structures of higher education systems as well as different levels of development on LO assessment tools and procedures (Croatia, Portugal, Sweden), and one international organisation located in Belgium (ESIB). All participating organisations the project will have the opportunity strengthen their skills in the field of LO assessment on human rights; for the research and teaching institutions, the project will correspond to an advance in the state of the art in the field of LO; for QAAs and ECA the production of the "QUAG", available for member agencies and others will represent a significant step forwards in the development of its mission; the project will also promote the dialogue between national agencies and higher education institutions, enabling the exchange of best practices across cultural contexts, as well as developing suitable methods for comparing practices of LO assessment across Europe, building a better understanding for how Agencies (QAAs) and higher education institutions can improve LO assessment methodologies.

Strengthening Professional Higher Education and VET in Central & South Eastern Europe - PROCSEE

ASHE and the Council of Polytechnics and Colleges of the Republic of Croatia (VVIVŠ) are among the partners in the international consortium implementing the project PROCSEE which aims to strengthen the professional higher education in the partner countries. The project started in October 2015 and will last three years. It is funded within the ERASMUS + K2 programme.

The EC Communication on *Rethinking Education: Investing in Skills for Better socio-economic outcomes* highlights significant discrepancies between countries across Europe in their development of VET and PHE. It specifically points out that while some European countries have world-class VET and PHE systems, many others, typically in southern Europe, lag behind in terms of participation, quality outcomes and attractiveness.

In countries with developed PHE systems, professional education is characterised by dual systems which have a high proportion of work-based learning, apprenticeships and other models which facilitate transition from learning to work. The communication further points out that excellence in PHE comes from systematically renewed curricula, constantly modernised delivery, and, crucially active involvement of businesses, especially small and medium enterprises (SMEs).

The differences in development of PHE across Europe is due to differences in socio-cultural traditions and perceptions, diverse structures of education and training systems and of the economy and labour market, reforms undertaken, the extent of involvement of social partners as well as the employment prospects of PHE graduates, and the preferences of individuals. PROCSEE will set up systematic structures for policy-recommendations and best-practice sharing, focusing on four specific areas:

- Alignment of VET with regional/local economic development strategies;
- Promotion of VET, especially to respond to identified skill shortages;
- Organising and monitoring student placements in the world of work;
- Personal Learning Environments and Further Education.

By bringing together leading actors in the field from across Europe, educational institutions & companies from SEE and European and Regional policy actors, the project will provide specific policy inputs on how to address these priorities in each participating country as well as across the region.

Building Professional Higher Education Capacity in Europe - BuildPHE

The Croatian Council of Polytechnics and Colleges is a partner in the BuildPHE project, whose objectives are

to encourage institutions of professional HE to analyse their internal policies and guidelines for cooperation between education, research and business. In addition, it is planned to design a set of supporting tools, in particular framework policies and/or implementation guides, to strengthen active cooperation between HEIs and partners from outside academia within the project. The project involves policy- and decision-makers and HEIs who will have the opportunity to analyse their internal policies for cooperation between education, research and business, propose improvements by sharing of best practices and implement these practices into their institutional strategies.

Recognition of Non-Country Specific Awards – RENSA

ASHE is involved as one of the partners in the project *Recognition of Non-Country Specific Awards* (RENSA) coordinated by UK Naric Office. The aim of the RENSA project is further development and sharing of good practice and information to support fair and, as appropriate, consistent recognition of non-country specific qualifications.

In the context of this project, "non-country specific" awards are defined as those which are wholly international, and do not form part of any one national education system. These may include, but are not limited to long-standing qualifications offered by international awarding bodies and increasingly, nationally recognised awarding bodies offering customised international awards which fall outside of the remit of the national regulator.

Whilst the *European Area of Recognition* (EAR) manual provides some helpful chapters that could be adapted and applied in the evaluation of such international credentials (such as the Non-Recognised but Legitimate Institutions

chapter), in practice there are no dedicated guidelines of good practice for the evaluation of non-country specific qualifications nor a clear means of sharing and saving examples of recognition decisions taken by NARICs. ASHE representatives attended the kick-off meeting held in June 2016 in Amsterdam.

Information System On pre-Bologna Academic Qualifications – ISOBAQ

The objective of the ISOBAQ project is to create and provide to the NARIC network one more recognition tool for enhancing the visibility, comparability, transparency and trust-based fair recognition, which would promote mobility in the field of education and employment.

This will be achieved by putting into place of an online information system (OIS) containing as much as possible structured information about the existing national legislation and levelling of the existing pre-Bologna HE qualifications towards the current national HE qualifications, the corresponding NQFs and the Bologna cycles. Such a structured information source could be used for bridging where possible the pre-Bologna HE qualifications towards EQF which would enrich it's nature a helpful tool for comparison, assessment, fair recognition and transparency.

Samples of the pre-Bologna HE qualifications in question would add value to the final online information system. The project will have immediate impact to enhancing the quality and effectiveness of the ENIC-NARIC network. In July 2016, representatives of ASHE participated in the kick-off meeting of this new international project.

Focus on Automatic Institutional Recognition project – FAIR

The objective of the Focus on Automatic Institutional Recognition project (FAIR) is to improve European as practiced by higher education institutions by implementing elements of automatic recognition.

Automatic recognition is a fairly new concept that is explored by the 'pathfinder group on automatic recognition' in preparation of the Bologna Ministerial Conference in Yerevan 2015. The measure to be tested is the introduction of automatic recognition in institutional recognition procedures.

FAIR aims to test how the recommendations can best be implemented in institutional recognition practices, making use of the collected good practice of the European Area of Recognition (EAR) manuals. Automatic recognition is expected to simplify institutional recognition decisions, because substantial parts of the recognition procedure will be standardized.

The experience and recommendations on how to do this at national level will be made available by the FAIR project team for all EHEA countries which will lead to faster and smoother recognition decisions.

National ENIC/NARIC office of the Agency for Science and Higher Education is one of the partners in this project that is coordinated by the Dutch NUFFIC. The duration of the project is 28 months.

Enhancing the Use of Mobility Tools for Recognition - $\ensuremath{\mathsf{EU}}\xspace - \ensuremath{\mathsf{MTR}}\xspace$

In line with the Europe 2020 Strategy and the European Higher Education Area, the main objective of the two-year

project Enhancing the Use of Mobility Tools for Recognition is to promote the existing European recognition tools and facilitate academic and professional mobility of students and workers. Using different mobility and recognition tools will increase the transparency of foreign gualifications and facilitate their fair recognition thus strengthening the chances for employment across Europe. Project activities include seminars for HEIs, public administration bodies and employers from different countries participating in the project - Italy, Latvia, Lithuania, the Netherlands, France and Croatia. National trainings (theoretical and practical modules) and seminars aimed at the promotion and the exchange of good practices on the use of the existing European mobility and recognition tools, such as the European Qualifications Framework, national qualifications frameworks, Europass, Diploma Supplement, ECTS and the European Recognition Manual for Higher Education Institutions, EAR - HEI. ASHE, i.e. Croatian ENIC/NARIC office is one of the partners in this project coordinated by the French agency CIEP.

ASHE organised the project workshop *Enhancing the Use* of *Mobility Tools for Recognition* in Zagreb. The focus of the trainings within the project is on the promotion and exchange of good practices that are related to the use of the existing mobility and recognition tools (the European Qualifications Framework, national qualifications frameworks, Europass, Diploma Supplement, ECTS and the *European Recognition Manual for Higher Education Institutions,* EAR – HEI). The project also aims to encourage synergies and the exchange of good practices among different stakeholders on at national level and across Europe. The project ended in the middle of 2016.

Removing Obstacles for Cross - Border Cooperation - ROCCO

The ROCCO project was initiated by the Ministry of Science and Education as part of a special tender within the Erasmus + programme, and is implemented in cooperation with ASHE. The aim of the project, which lasted from October 2014 to April 2016, was to adapt the legal framework of Croatian science and higher education to cross-border cooperation of HEIs – primarily in order to increase the number of joint studies, but also to facilitate and regulate other forms of cross-border cooperation and transnational higher education. After training and consultation with all interested stakeholders, the project resulted in legislative changes as well as practical instructions for higher education institutions that will help them become involved in a large number of existing forms of cross-border cooperation.

The final conference of the ROCCO project was held at the Faculty of Organisation and Informatics in Varaždin on 17th and 18th March 2016. *The Guidelines for the Development, Accreditation and Implementation of Joint Programmes in the Republic of Croatia*, created by the Working Group for drafting regulations on joint programmes and cross-border cooperation in higher education were presented to the conference participants as well as to other relevant stakeholders.

The Guidelines provide higher education institutions with basic information and advice on the development, accreditation and delivery of joint programmes. They also provide an overview of the current status of crossborder cooperation in higher education with a focus on joint programmes, explain the reasons for establishing joint programmes and, by using a SWOT analysis, present challenges and opportunities emerging from them. Furthermore, the Guidelines also describe the steps preceding the accreditation of a joint programme, the initial accreditation procedure and the subsequent programme implementation.

3. Other programmes

Ensuring Access to Croatian Public e-services within e-Citizens Platform for EU/EEA citizens - CEF eID

Croatia, ASHE participates in the project *Ensuring Access* to *Croatian Public e-services within e-Citizens Platform for EU/EEA citizens* (CEF eID). The Croatian consortium submitted the application for the public call CEF-TC-2015 eldentification of the European Commission (INEA), and the project was selected for funding.

ASHE participates in the project in the part relating to applications for study programmes through the National System of Applications to Graduate Studies (NISpDS), which falls within the scope of work of the Central Applications Office situated at ASHE. The project aims to enable applicants to study programmes who are nationals of EU member states to apply for study programmes in the same way as their Croatian counterparts, i.e. through the Central Government portal e-Citizens, which reduces administration work and costs of application.

Implementation of the project started in June 2016 and ends in June 2017.

Tempus project ALIGN - Achieving and Checking the Alignment between Academic Programmes and Qualification Framework

The objective of the ALIGN project is to develop guidelines for planning, implementation and evaluation of learning

outcomes and ensure their quality both internally and externally in line with qualification frameworks. ASHE employee took part as member of an expert panel in the international evaluation of the following study programmes in Russia in June 2016: *Linguistics Master's Programme Applied Linguistics: Teaching English as a Foreign Language; Ecology and Environmental Management/Master's Degree Programme Environmental Risk Management in the Arctic; and Quality Assurance Management in Agriculture and Food Industry.* Panels comprising experts from Belgium, Poland, Russia and Croatia evaluated the compliance of the programmes with the learning outcomes of the European Qualifications Framework and the Standards *and Guidelines for Quality Assurance in the European Higher Education Area (ESG).*

Conference presentations and participations

- ASHE Director, prof. dr. sc. Jasmina Havranek joined the annual conference *The Future Is Now: Where Is Accreditation*, held by the Council for Higher Education Accreditation (CHEA), an organisation that brings together accreditation bodies in the United States held in Washington, 25th – 27th January 2016. After the conference, CHEA International Quality Group (CIQG) held their Annual meeting entitled *Quality Assurance and Accreditation: Multiple Demands; Multiple Challenges.* In her plenary lecture *Quality assurance and Academic corruption*, prof. dr. sc. Havranek discussed the role of quality assurance in preventing academic corruption.
- Upon invitation by the Institute for Higher Education University of Georgia, Assistant Director of ASHE, mr. sc. Sandra Bezjak held a presentation about

the implementation of the *European Standards and Guidelines for Quality Assurance in the European Higher Education Area* (ESG) and the Croatian QA system entitled *Implementation of European Standards and Guidelines: A Croatian Accreditation Perspective* on the 2nd February 2016.

- ASHE participated in the workshop of ENQA's Working Group on Staff Development held in the United Kingdom's Quality Assurance Agency for Higher Education, QAA), Gloucester, UK, 11th – 12th February 2016.
- During the workshop entitled Institutional Research and Institutional Effectiveness, organised by the Higher Education Initiative for Southeastern Europe, HEISEE, 23rd – 25th February 2016 in Rijeka, dr. sc. Vesna Dodiković-Jurković, ASHE Vice-director gave a presentation about Institutional research – External Quality Assurance.
- As a guest of the American Penn State University, prof. dr. sc. Jasmina Havranek gave a presentation entitled Standards and Guidelines for Quality Assurance in the European Higher Education Area (ESG) as a Tool to Enhancement Quality of Higher Education in Croatia/ Europe on the 1st March 2016, in Pennsylvania.
- As part of the Quality Day at the University of Zagreb Faculty of Forestry, on the 31st March 2016, mr. sc. Sandra Bezjak delivered a presentation entitled *External Quality Assurance in Higher Education and Science.*
- In April 2016, a representative of ASHE presented a topic of public relations in the public sector on the example of the Agency for Science and Higher

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Education at the Faculty of Political Science in Zagreb.

Presentation entitled the Impact of implementation of international standards on quality assurance in higher education at the 16th Croatian Conference on Quality and the 7th Scientific Assembly of the Croatian Society for Quality, in Poreč, 19 – 21 May 2016.

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- Mr. sc. Sandra Bezjak presented on the state of SVUG in Croatia at the 1st OBRAD Conference in Zagreb, on the 2nd and 3rd July 2016.
- On the 16th September 2016, ASHE joined the panel discussion on *Higher Education system and labour market, do we speak the same language?* that took place during the final conference of the project *Adopting CQF principles in higher education institutions in the field of economics* (ECONQUAL) at the Faculty of Economics, University of Rijeka.
 - ASHE Assistant director Bezjak gave a presentation entitled ASHE activities as support to improving teaching competences at HEIs at the kick-off conference entitled Emphasis on developing and upgrading of competences for academic teaching of Educa-T project (Emphasis on developing and Upgrading of Competencies for Academic Teaching) in Zagreb, 22nd – 23rd September 2016.
 - Presentation entitled Agency for Science and Higher Education and Accreditations in Croatia was given by mr. sc. Sandra Bezjak during *EFMD Workshop: Market Trends, Quality and Accreditations* held in Rovinj, 24th – 25th October 2016.
- ECA organised a meeting of Working Groups for Internationalisation and Innovation in QA, of which

ASHE representative is a member in Koln, Germany, on 8th April 2016.

- As an active member of the umbrella European quality assurance organisation, ENQA, the Agency took part in their conferences and meetings in 2016. ASHE representatives participated in ENQA members' forums held in Ljubljana, Slovenia (17th – 19th November 2016) and Budapest, Hungary (28th – 29th April 2016). Different topics were discussed, such as the recognition of foreign qualifications, forging of qualifications, further development of accreditation agencies, and evaluations in science (the topic on which ASHE employee held a workshop). Furthermore, the document Quality Assurance Professional Competencies Framework developed by the ENQA Staff Development Group, of which ASHE is a member, was presented.
- ENQA seminar entitled *Quality Assurance in the European Context* took place in Brussels on 3th and 4th November 2016. The aim of the seminar was to inform QA agencies' representatives, including ASHE, about relevant topics such as the Bologna Process, the European Commission's priorities concerning quality assurance and higher education, the role of the main stakeholder bodies in the European Higher Education Area, and the purpose of the Standards and guidelines for quality assurance in the European Higher Education Area (ESG).
- ASHE representatives joined the conference on the Social dimension of e-learning – Addressing challenges through QA, organised by ENQA and hosted by the Hellenic Quality Assurance and Accreditation Agency (HQA) in Athens, Greece, in December 2016.



Image 7: European Quality Assurance Forum (EQAF) in Ljubljana

- ASHE hosted the sixth meeting of the the International Association of Admissions Organisations (IAAO) on 4th – 6th May 2016 in Cavtat.
- ASHE took part in a workshop on the the revised European standards and guidelines for quality assurance (ESG) within the framework of EQUIP (*Enhancing Quality through Innovative Policy & Practice in European higher education*) project held 9th – 10th May 2016 in Vienna.
- As a member of the Network of Central and Eastern European Quality Assurance Agencies in Higher Education (CEENQA), ASHE joined their General Assembly held in May 2016 in Krakow.
- ASHE representatives participated at the kick-off

meeting of the ERASMUS+ project *Recognition* of *Non-Country Specific Awards* (RENSA) held in Amsterdam in June 2016.

- The final conference of the IMPALA project Impact Evaluation of Quality Management in Higher Education. A Contribution to Sustainable Quality Development of the Knowledge Society, funded from the Lifelong Learning Programme of the European Union took place on 16th – 17th June 2016 in Barcelona, Spain. The conference was organised by ENQA and the German agency for evaluation EVALAG (Evaluation Agency Baden-Württemberg).
- Representatives of the Croatian ENIC/NARIC office attended the 23rd Joint Meeting of ENIC and NARIC Networks held on 19th -21st June 2016 in Amsterdam, Netherlands. The meeting was organised by the European Commission, the Council of Europe, UNESCO and EP-Nuffic (Dutch ENIC-NARIC).
- Within the scope of the SKAZVO project Improvement of quality assurance and enhancement systems in higher education, co-funded from the ESF (European Social Fund) Operational Programme Efficient Human Resources of the European Union, the representatives of the Agency for Science and Higher Education paid a visit to the Accreditation Organisation for the Netherlands and Flanders (NVAO) and the University of Ghent, 26th – 28th October 2016.
- ASHE employees visited the Institute of Art, Design and Technology in Dublin, Ireland within the same project (SKAZVO) on 14th December 2016 and participated at the *Enhancement Conference 2016: Growing your vision for Higher Education; 2nd QQI*

Conference on Quality Enhancement organised by the Irish Agency Quality and Qualifications Ireland (QQI) on 15 December 2016. The aim of the visit was to learn more about the implementation of the qualification framework in Ireland and their quality assurance procedures with the special emphasis on the enhancement of teaching and learning quality.

In July 2016, representatives of ASHE visited the United Kingdom in the framework of SKAZVO project with the aim of exchanging experiences with three institutions in charge of collecting, distributing and analysing higher education data: HESA - Higher Education Statistics Agency, JISC and QAA - Quality Assurance Agency for Higher Education. The goal was to learn about tools and methods used in collecting, but also in the application of higher education data.

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Internal quality assurance



ASHE has an integrated quality assurance system, in line with both ESG and ISO 9001, as well as an integrated Quality Manual. Following the guidelines of the new ISO 9001 standard, ASHE also developed a draft risk management strategy.

The annual audit of internal quality assurance system was used to assess the functionality of internal quality assurance mechanisms, implementation of the ASHE annual operational plan, quality analysis of the conducted staff trainings, efficiency analysis of the implemented external evaluation procedures and analysis of the panel members' and HEIs' survey.

In order to identify the needs of its employees, ASHE conducted the regular annual satisfaction survey. New opportunities for improvement in this respect opened up with Agency's participation in the project "Towards the

real equality between men and women - harmonising work and private life" with Mamforce Association. ASHE passed an independent assessment of working conditions and human resources management practices, and was awarded with MAMFORCE STANDARD. Following the recommendations received, ASHE will in the following period implement new institutional practices with regard to family responsibilities of its employees, as well as enable a gender balance in management positions.

The external certification body Det Norske Veritas GL (DNV) carried out an external evaluation of ASHE in October of 2016, in accordance with the requirements of ISO 9001, and assessed ASHE's quality assurance system as effective.

Public relations



Providing information on its activities, their results and significance for the system of higher education and science as well as the social development in general is an important part of ASHE's work. That is why its communication activities are planned on an annual level, with adjustments for current events that are taking place at ASHE and the wider surroundings.

In the past year, with the aim of achieving efficient communication with the public, ASHE conducted the following activities:

 publishing its 2015 Annual Report and the 2016 Activities Plan and sending it to all relevant stakeholders in the system of higher education and science in Croatia; the Report was also sent to ENQA and its members as well as to EQAR; the electronic version, in Croatian and English, was published on www.azvo.hr;

- on its website, ASHE published its Self-Evaluation, in Croatian and English, for the purpose of ENQA's external evaluation;
- in July and December, ASHE published the electronic bulletin, in Croatian and English, on its website and sent it to its subscribers, higher education institutions, media representatives, etc.;
- in order to increase its international visibility, ASHErelated news was also published in electronic bulletins of ENQA, CEENQA (*Central and Eastern European Network of Quality Assurance Agencies in Higher Education*) and INQAAHE (*International Network for Quality Assurance Agencies in Higher Education*);
- regularly reporting on ASHE activities on its website

during the entire year, as well as via announcements that are also published on its website and sent to relevant media representatives;

- prompt replies to journalists' questions;
- following print and electronic media content related to ASHE and topics from higher education and science on a daily basis;
- regularly announcing new information from higher education and science on its Facebook and Twitter profiles;
- last year marked the first time that ASHE conducted a survey among journalists who follow the Agency's work, topics from quality assurance, higher education and science, with the aim of collecting information on the satisfaction with the quality of information, communication activities and the interest in particular topics; collected information is used for planning subsequent communication activities;
- developing a communication activities plan for the three-year SKAZVO project, which is financed from EU's European Social Fund, and a communication plan for the two-year HRMinHEI project, financed from EU's Erasmus + programme; ASHE is the leader of both projects;
- ASHE representative gave a lecture for journalism students from the Faculty of Political Sciences in Zagreb on the topic of public relations in public administration on the example of ASHE.

communication activities, special attention will be paid to the implementation of communication plans for SKAZVO and HRMinHEI projects.

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Corporate social responsibility



ASHE took part in the project *In Pursuit of Full Equality* between Men and Women: Reconciliation of Private and Family Life⁸ in cooperation with the Mamforce association. As part of the project, an audit was conducted to evaluate ASHE's working conditions, its implementation of family responsibility and gender equality policies with a special emphasis on adjusting the working conditions for parents with small children, the possibility of gradual return to work after a maternity/parental leave, the possibility for professional training, advancement and equal gender representation in managerial positions.

Methodology of collecting data for the audit included:

a) filling out questionnaires about the policies, practices

and measures that support family responsibility and gender equality,

b) employee survey that gave insights into their perception of existing practices,

c) qualitative survey done through interviews with the employees.

Organisations that successfully pass the audit and implement the suggested measures are awarded the MAMFORCE STANDARD which confirms that the employer implements family responsibility and gender equality policies in human resources management.

^aProject leader is the Gender Equality Ombudsperson, and project partners are Croatian national theater in Split, RIJEČI/PRAVE/PREDSTAVE association and Spona. Total value of this project is 437,172.29 EUR, in which the European Union participates with 350,000 EUR. Accordingly, in November 2016 ASHE received the MAMFORCE STANDARD and thus became the first organisation from the public sector to receive this standard as a confirmation of implementing family responsibility and gender equality policies.



Image 8: Receiving the MAMFORCE standard

2016 financial report

ASHE is funded by the Ministry of Science and Education. Its revenue in 2016 was comprised of 17 accounts:

- A621155 Administration and general transactions
- A621179 National Council for Science, Higher Education and Technological Development
- A621182 Council of Polytechnics and Colleges
- A621186 Evaluation of scientific institutions
- A621187 Evaluation of higher education institutions
- A621190 External audit of higher education institutions and scientific organisations

- A621191 Monitoring employment of graduates
- A621192 Central Applications Office
- A867004 Committee for Ethics in Science and Higher Education
- K621178 Equipment and maintenance
- K621194 National Information System for Applications to Higher Education Institutions
- K867008 European Social Fund Improvement of quality assurance and enhancement systems in higher education project (SKAZVO)
- T867003 IPA RPL Competitive Croatian Higher

Education for Better Employability

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- A867005 PROCSEE strengthening professional higher education and vocational education and training in Central and South-Eastern Europe
- A867006 BUILDPHE further capacity building in professional higher education in the European Union
- A867009 HRMinHEI Modernisation of Higher Education Institutions through enhancement of Human Resources Management function
- A867002 EURASHE Harmonising approaches to professional higher education in Europe

Based on financial reports, total revenue in 2016 amounted to 20,233,679 kn. It consisted of:

- state budget resources for 2016 16,590,517 kn
- own-source revenue 614,812 kn
- ESF Improvement of quality assurance and enhancement systems in higher education project (SKAZVO) – 1,814,584 kn.
- smaller projects funded by the European Commission and other revenue – 1,213.766 kn

ASHE expenditure in 2016 amounted to 18,915,017 kn, and consisted of 18,915,017 kn of business expenditure and 1,016,267 kn of expenditure for acquisition of non-financial assets.

The expenditure funded from the state budget amounted to 16,590,517 kn.

	EXPENSES	kn
А.	Business expenditure (1+2+3+4+5+6)	18,915,017
1.	Staff expenditure	8,763,359
1.1.	Salaries (gross)	7,266,214
1.2.	Salary contributions	1,236,406
1.3.	Other staff costs	260,739
2.	Material costs	9,285,501
2.1.	Travel costs and other remunerations	2,944,863
2.2.	Material and energy expenditure	309,997
2.3.	Service costs	5,398,336
2.4.	Other costs	632,305
3.	Financial expenditure	39,886
4.	Subsidies	32,076
5.	Transfer of funds to partners in EU projects	130,451
6.	Other costs	663,744
В.	Acquisition of non-financial assets	1,016,267
	TOTAL EXPENDITURE (A+B)	19,931,284

Table 8: ASHE 2016 expenditure

A. Business expenditure

Item 1. Staff expenditure includes:

- salaries (gross) and
- other staff expenditure (gifts for children, severance pay, help after an extended sick leave, etc.).

Item 2. Material costs include:

- 2.1. Travel costs and other remunerations
- 2.2. Material and energy expenditure
- 2.3. Service costs
- 2.4. Other costs.

Item 2.1. Travel costs and other remunerations include:

- travel costs and remunerations for members of expert panels and professional bodies (as listed in item 2.3.), remunerations for employees' transport costs;
- costs of seminars, professional trainings and other educational programmes.

Item 2.2. Material and energy expenditure:

• office material, energy, material for current and investment maintenance.

Service costs:

- contracts for the annual maintenance and upgrading of the NISpVU system, maintenance and upgrading of the information system MOZVAG, information equipment maintenance costs and archiving;
- maintenance of other information systems Centrix system for administration and data management, IP telephone centre and contact centre, software for financial administration, and other programmes;
- rent (offices, spaces for seminars, workshops, training courses and sessions of committees, working groups and other bodies working with the Agency);
- intellectual services:

- temporary work contracts with Croatian and foreign members of expert panels working on external quality assurance procedures implemented by the Agency (initial accreditation, re-accreditation, thematic evaluation of higher education institutions and research organisation, and external audits);

- temporary work contracts with members of professional and administrative bodies working with the Agency (members of the Accreditation Council, NCSHETD, Committee for Ethics, Scientific Field Committees, Scientific Area Councils, CPC, and other committees established in accordance with the work plan and as required);

- student work for Central Applications Office.

• telephone, postage (Scientific Field Committees, ENIC/NARIC, SPU) and transport cost;

- promotion and information services (annual report, leaflets and materials for conferences, and other Agency events);
- communal service;
- design and printing costs, other services.

Item 2.4. . Other costs:

- costs of the Agency's Management Board
- insurance premium
- membership fees domestic and foreign.

B. Acquisition of non-financial assets:

- software licences
- investment for computer programmes
- office, computer and communication equipment, equipment for the maintenance of heating and ventilation system, etc.
- furniture, etc.

Activity plan for 2017

- Conducting initial accreditation for performing higher education activity upon request;
- Re-accreditation of seven higher education institutions as part of the SKAZVO project;
- Conducting the re-accreditation of postgraduate university (doctoral) studies;
- Developing the criteria for the new cycle of external evaluation and carrying out an audit pilot project;
- Conducting external evaluations outside Croatia;
- Conducting thematic evaluation upon request;
- Conducting activities from the Strategy of Education, Science and Technology;

- Supporting Croatian HEIs in the implementation of CROQF and the new ESG;
- Doing a complete analysis of the first cycle of external evaluations;
- Developing an improved, sustainable model of external evaluations for the next cycle;
- Creating and adopting a new re-accreditation model in cooperation with other stakeholders in the system of higher education and science;
- Reconstructing the MOZVAG system;
- Performing an analysis of the existing system of higher education with recommendations for further improvement;

- Developing the procedure of external evaluation for entering study programmes in the CROQF Register;
- Monitoring graduate satisfaction and employability;
- Monitoring student satisfaction with study programmes on the national level;
- Providing expert and administrative support to the work of strategic and expert bodies in the system of science and higher education (NCSHETD, Committee for Ethics in Science and Higher Education, Council of Polytechnics and Colleges, Field Committees for Appointment to Scientific-Teaching and Teaching Grades at Polytechnics and Colleges, Scientific Field Committees for Appointment to Scientific Grades, Scientific and Artistic Area Councils, and the Science and Higher Education Funding Council);
- Participating in ongoing international projects and applying for new ones;
- Developing human potentials LLL (educating ASHE employees);
- Educational activities the education of expert panels which conduct procedures of external evaluation and thematic education of HEIs and scientific organisations, organising conferences, seminars and workshops;
- Complete analysis of trainings conducted during the first cycle of external evaluations;
- Regular activities of the national network of QA units at higher education institutions;

- Establishing a single ASHE database with the most important information from the system of higher education and science;
- Improving the integrated internal system of quality assurance in accordance with the new ESG and ISO 9001, as well as new models of external evaluations;
- Active participation in the development of the national information system of higher education and science;
- Introducing a centralised system of application to graduate study programmes;
- Developing the Knowledge Base;
- Developing a ranking system of candidates for enrolment to study programmes;
- Collecting and analysing data of candidates who are not covered by existing national information systems;
- Collecting and analysing data of candidates outside the regular education system in Croatia who want to enrol into the first grade of secondary school;
- Improving the cooperation with partners from the area of professional development (of secondary and higher education students);
- Conducting the procedure of application to undergraduate, graduate and integrated study programmes at Croatian HEIs;
- Informing candidates about enrolment to HEIs in Croatia and users on professional opportunities (continuing education and further professional

development);

- Promotional activities.
- Developing a studij.hr mobile application which candidates will be able to download to their smart phones in order to keep better track of information important for applying to study programme;
- · Recognition of foreign higher education qualifications;
- Providing information on the national education system, foreign education systems and the recognition of foreign higher education qualifications;
- Providing information on the recognition of foreign professional qualifications;
- Processing data and producing statistics and analytics on the level of the system;
- Active cooperation with external stakeholders (MSE, The Education, Science and Culture Committee of the Croatian Parliament, Croatian Rectors' Conference, CPC, State Archives, Croatian Employment Service, Ministry of Public Administration, etc.)
- Cooperating with institutions from the public and private sector as well as with non-governmental and non-profit organisations;
- Providing IT support to ASHE business processes;
- Exchange of experts;
- Presentations at expert conferences;
- Informing the public on ASHE activities;

Glossary

ACCREDITATION COUNCIL – ASHE's expert body, composed of representatives of the system of higher education and science, business community and non-governmental organisations

ACCREDITATION RECOMMENDATION – ASHE's independent expert opinion adopted on the basis of conducted evaluation and sent to the Ministry in charge of science and higher education that decides on the outcome of the evaluation procedure

ACCREDITED STUDY PROGRAMMES – study programmes which, after the conducted re-accreditation procedure, receive MSES' licence that confirms the compliance with prescribed conditions **CENTRAL APPLICATIONS OFFICE (CAO)** – national information centre for applications to study programmes at higher education institutions in Croatia. CAO combines activities related to applications to study programmes and those related to compliance with the requirements for enrolment at higher education institutions. CAO also handles applications of candidates coming from outside the regular Croatian educational system for enrolment into the first grade of the secondary school

CROATIAN QUALIFICATIONS FRAMEWORK (CroQF)

 instrument which defines the entire system of qualifications on all educational levels in Croatia through standards of qualifications that are based on learning outcomes and harmonised with the needs of the labour market, individuals and the society **EUROPEAN ASSOCIATION FOR QUALITY ASSURANCE IN HIGHER EDUCATION (ENQA)** – umbrella European association for quality assurance in higher education whose primary task is taking care of the quality of higher education in the entire European Higher Education Area

EXTERNAL EVALUATION – the process whereby a specialized agency collects data, information, and evidence about an institution, a particular unit of a given institution, or a core activity of an institution, in order to make a statement about its quality. External evaluation is carried out by a team of external experts, i. e. representatives of the academic community or experts in a particular area from other socio-economic branches

FIELD COMMITTEES FOR APPOINTMENT TO SCIENTIFIC-TEACHING AND TEACHING GRADES AT POLYTECHNICS AND COLLEGE – issue opinion on whether applicants meet the minimal conditions for appointment into teaching grades

FINAL REPORT OF THE EXPERT PANEL – written by the expert panel following the site-visit to the institution under evaluation. The report contains quality grade of the evaluated institution, which is based on materials submitted by the HEI and insights from the site-visit. Quality grade is given by each member of the expert committee on a separate template, which serve to calculate the average grade. The report should also mention recommendations for improvement. The panel's final report and the optional comment of the higher education institution are sent to the Accreditation Council **HIGHER EDUCATION INSTITUTIONS** – higher education institutions in Croatia are universities (with their constituent units – faculties and art academies), polytechnics and colleges. University is an institution that organizes and delivers university studies, and can also organise and deliver professional studies. Polytechnics and colleges are institutions that organise and deliver

HIGHEREDUCATIONINSTITUTIONS'RE-ACCREDITATION PLAN– re-accreditation is carried outin accordance with the annual plan determined by ASHE'sAccreditation Council and published on the website www.azvo.hr

INITIAL ACCREDITATION – procedure of external quality evaluation of new institutions and/or new study programmes whose aim is to determine whether they meet the necessary requirements and standards. The outcome of this procedure is the accreditation recommendation for the purpose of issuance of license to higher education institutions for performing higher education activity and/or delivering study programmes, and the issuance of licence to scientific organisations for performing scientific activity

INTERNAL EVALUATION – procedure of systematic gathering of administrative data and students' opinions, followed by moderated interviews with lecturers and students, which results in a self-evaluation report. Basically, self-evaluation represents collective institutional reflection and an opportunity for quality enhancement **LEARNING OUTCOMES** – competencies that a person acquires through learning and proves after the learning procedure; learning outcomes describe what a student should know, understand and be able to do on successful completion of the learning process

LICENCE – administrative document issued by MSES on the basis of conducted evaluation which has determined that the evaluated institution meets the conditions for performing activity and/or delivering study programmes

MOZVAG – information system which supports ASHE's quality assurance procedures. In addition to ASHE, other users of the MOZVAG system are Croatian higher education institutions, NCSHETD, and numerous domestic and foreign reviewers, reporters and auditors

NATIONAL COUNCIL FOR SCIENCE, HIGHER EDUCATION AND TECHNOLOGICAL DEVELOPMENT (NCSHETD) – the highest expert body which takes care of the development and quality of all scientific activities and the system of science, higher education and technological development in Croatia

NATIONAL ENIC/NARIC OFFICE – ASHE's information centre on academic mobility and the recognition of foreign higher education qualifications

NATIONAL INFORMATION SYSTEM OF APPLICATION TO HIGHER EDUCATION INSTITUTIONS (NISpVU) – system which handles the entire process of application to study programmes, or rather higher education institutions in Croatia. The system contains information on secondary school grades, State Matura exam results, categorisation of athletes, results of national and international academic competitions and other special achievements of all candidates, regardless of where and when they finished secondary school. This data forms the basis for the development of rankings used by higher education institutions to enrol students

NETWORK OF HIGHER EDUCATION INSTITUTIONS AND STUDY PROGRAMMES – strategic document that contains guidelines and criteria for the establishment of higher education institutions and study programmes, adopted by the Croatian Parliament at the proposal of the then National Council for Higher Education

QUALITY (in higher education) – a multidimensional concept which pertains to contextual settings of an educational model, institution's mission and goals, and specific standards of a given system, education institution, study programme or scientific area

QUALITY ASSURANCE – continuous process of evaluating (assessing, monitoring, guaranteeing, maintaining and improving) the quality of a higher education system, institution or programme. Many systems differentiate between internal quality assurance (e.g. intra-institutional practice with the purpose of monitoring and improving the quality of higher education) and external quality assurance (e.g. within or above the institutional scheme of quality assurance of higher education institutions and study programmes)

QUALITY GRADE - awarded by the expert panel on the

basis of standards set in the documents Criteria for the Assessment of Quality of Higher Education Institutions within Universities or the Criteria for the Assessment of Quality of Polytechnics and Colleges

RE-ACCREDITATION CYCLE – all public and private higher education institutions, as well as all research organisation listed in the Register of Scientific Organisations, are subject to re-accreditation which is conducted in five-year cycles.

RE-ACCREDITATION MODEL – Croatia has a combined model of reaccreditation which investigates two elements: compliance with the minimal academic quality threshold and the quality grade. The procedure assesses whether institutions have processes and mechanisms for selfevaluation and continuous improvement of programmes as well as all other institutional segments

RE-ACCREDITATION OF HIGHER EDUCATION INSTITUTIONS – external evaluation procedure that assesses compliance with minimal requirements (academic threshold) and gives a quality grade. The goal of the re-accreditation is to determine whether the evaluated higher education institution meets the minimum criteria prescribed by 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. Re-accreditation outcomes:

- issuing confirmation on compliance with conditions for continued activity or part of activity
- denial of license for activity or part of activity
- · issuing a letter of expectation with the deadline for

resolving deficiencies of up to 3 years

RE-ACCREDITATION OF SCIENTIFIC ORGANISATIONS – the procedure of re-accreditation of scientific organisations listed in the Register of Scientific Organisations

RE-ACCREDITATION OF SCIENTIFIC ORGANISATIONS OUTSIDE THE SYSTEM OF HIGHER EDUCATION AND PUBLIC SCIENTIFIC INSTITUTE – scientific organisations listed in the Register of Scientific Organisations that are not universities or their constituents, higher education institutions or public research institutes are subject to period re-accreditation every 5 years. These are scientific organisations founded by the Republic of Croatia, private scientific organisations and other legal entities listed in the Register of Scientific Organisations. The goal of the re-accreditation is to determine the compliance with conditions for continued scientific activity, which is a prerequisite for future funding from the state budget

REGISTER OF SCIENTIFIC ORGANISATIONS – maintained by MSES; entry is based on the Licence for Performing Scientific Activity

REGULATED PROFESSION – professional activity or group of professional activities, access to which or the pursuit of which is subject to the possession of specific professional qualifications, as well as professional activity or group of professional activities pursued by members of professional organisations with a professional title

SCIENTIFIC FIELD COMMITTEES – take part in the appointment to scientific grades in accordance with the Act on Scientific Activity and Higher Education and accompanying regulations

SELF-EVALUATION – document produced by the institution under evaluation in line with the Instructions for Self-Evaluation of Higher Education Institution. The prepared self-evaluation is sent to all members of the expert panel, who are obliged to study it and prepare comments on the perceived advantages and disadvantages of the institution under evaluation

STANDARDS AND GUIDELINES FOR QUALITY ASSURANCE IN THE EUROPEAN HIGHER EDUCATION AREA (ESG) – an agreed set of standards, procedures and guidelines on quality assurance in higher education that are used in the European Higher Education Area (EHEA)

Abbreviations and acronyms

- ASHE Agency for Science and Higher Education
- CAO Central Applications Office
- **CPC** Council of Polytechnics and Colleges
- **CROQF** Croatian Qualifications Framework
- ECA European Consortium for Accreditation
- EHEA European Higher Education Area

ENIC – European Network of National Information Centres on academic recognition and mobility

ENQA – European Association for Quality Assurance in Higher Education

EQAR – European Quality Assurance Register for Higher Education

ESG – Standards and Guidelines for Quality Assurance in the European Higher Education Area

- FC Field Committee
- MSE Ministry of Science and Education

NARIC – National Academic Recognition Information Centres

NCHS – National Council for Higher Education

NCS – National Council for Science

NCSHETD - National Council for Science, Higher

Education and Technological Development

NISpVU – National Information System of Application to Higher Education Institutions

QAS – Quality Assurance System

SFC – Scientific Field Committee

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