



CLASS: 003-08/13-02/0006

REG.NO. 355-02-03-16-0005

### **Meta-evaluation of external quality assurance audits in 2014**

Zagreb, February 2016



## Introduction

In the Republic of Croatia, the external quality assurance in higher education and science is regulated by the Act on Quality Assurance in Science and Higher Education (OG 45/09), by which all public and private higher education institutions need to establish a quality assurance system and continuously develop the quality of all their activities, on the basis on internal and external evaluations. In line with the Act on Quality Assurance in Science and Higher Education, the Agency for Science and Higher Education (hereinafter: the Agency or ASHE) carries out procedure of external quality assurance audit of higher education institutions (hereinafter: audit) in 5-year cycles. First cycle (ESG 2.7.) started in 2010. Since this is the first cycle of external evaluations after the adoption of the Act on Quality Assurance in Science and Higher Education, which in addition to audit also defines the procedure of re-accreditation of higher education institutions in the Republic of Croatia, ASHE Accreditation Council decided that all polytechnics and public universities are to be evaluated in the first audit cycle. The external QA audit will additionally be carried out at those higher education institutions that show interest and/or meet the preconditions for the successful implementation of the procedure.

In accordance with the ESG standard 2.8., which calls for ENQA member agencies to analyse data collected during external evaluations - on existing conditions, trends, good practices and areas where improvements are needed - ASHE conducted an analysis of audit procedures carried out in 2014. Plan of external QA audits included 6 HEIs. Data collected and analyses carried out form the basis for decision and policy making in terms of quality development of external QA audit procedure, higher education institutions, and higher education system in general.

## Methodology of external QA audit procedure

Every year the Agency surveys higher education institutions and collects information on their QA systems. Based on data collected, the Agency proposes an annual plan of external audits for the following year. In selecting higher education institutions that will be subject to external QA audit, ASHE selects those that meet the prerequisites for a successful implementation of the procedure.

The annual Plan of external quality assurance audits for 2014 (CLASS: 003-08/13-02/0006, REG.No: 355-02-03-13-3) included the following institutions:

1. Polytechnic of Zagreb
2. Polytechnic "Lavoslav Ružička" in Vukovar
3. Polytechnic Hrvatsko Zagorje in Krapina
4. University of Zagreb Faculty of Mechanical Engineering and Naval Architecture
5. University of Rijeka Faculty of Civil Engineering
6. University of Zagreb Faculty of Metallurgy

For one of the 6 audited institutions - University of Zagreb Faculty of Metallurgy - the procedure carried out was a re-audit; the first audit of this institution was conducted in 2010.

Quality assurance systems (hereinafter: QAS) at HEIs were evaluated in line with ESG standards 1.1-1.7., Ordinance on External Audit of Quality Assurance Systems at Higher Education



Institutions in the Republic of Croatia (CLASS:003-08/10-02/0004, REG.NO.:355-02-03-10-2) and Criteria for assessing the level of development and efficiency of QA systems at higher education institutions in the Republic of Croatia, as defined by the Manual for Audit of Higher Education Institutions in the Republic of Croatia (2nd edition, CLASS:003-08/10-02/0004, REG.NO.:355-01-10-5).

Criteria are:

- Preliminary phase - preliminary quality assurance activities are underway (agreements have been made at the level of HEI, documentation is being drafted)
- Initial phase - Quality assurance system is defined but not fully functional (basic documents are drafted)
- Developed phase - Quality assurance system is functional, internal audit is implemented and system is improved on the basis of internal audit results
- Advanced phase - Quality assurance system is continuously developed on the basis of results of both internal and external audit.

All documents and criteria are published on ASHE website:

<https://www.azvo.hr/en/evaluations/evaluations-in-higher-education/audit-of-higher-education-institution> and are consistently used in all external QA audit procedures (ESG 2.2. and 2.3). Since the documents that define the external QA audit procedure have been tested through a pilot-project, there was no need to additionally revise/amend them.

The external quality assurance procedure includes the following elements: review of HEI's submitted documentation (the base of which is the adopted internal QA audit report); site-visit of the Audit Committee; drafting of the external QA audit report with recommendations for improvement (ESG 2.5.); the follow-up phase resulting in an analysis of the efficiency of activities carried out (ESG 2.6.); drafting of the final audit report, including a final assessment of the degree of development and efficiency of the evaluated QAS and recommendations for the following period, until the next external audit. The final audit report is adopted by ASHE Accreditation Council and published on Agency website.

Quality assurance systems that have met the set criteria and provided evidence of being functional, efficient and fit for purpose, in accordance with national and ESG standards, are awarded with a 5-year certificate by ASHE Accreditation Council, based on expert panel recommendation.

## **Seminars and workshops for HEIs**

Investing in development of human resources is one of priorities; one of the main tasks of the Agency is to carry out trainings of all the stakeholders in this procedure (HEIs and audit panels), and to continuously develop and improve the external QA audit procedure based on experience and data collected.

As part of preparations for audit procedure, on 27 September 2013 a workshop was organised for the representatives of HEIs (deans, representatives of QA units) included in the annual Plan of audits for 2014. Workshop was attended by 13 representatives of HEIs, who were informed on the procedure, standards, criteria, good national and international practice, and were provided with guidelines for preparing the necessary audit documentation. Participants assessed the quality of this workshop with an average grade of 4.6/5. Highest grades of 4.6 and 4.7 were given to the organisation of workshop, and participation in discussion.

At the request of the Polytechnic "Lavoslav Ružička" in Vukovar, on 28 May and 22 September 2014, additional workshops was organised for representatives of the Polytechnic, as a part of institutional preparations for the upcoming external audit.

## **Training of audit panel members**

External QA audits are carried out by panels of trained and certified audit experts, selected from ASHE audit expert database.

Credibility and quality of QA audit directly depends on the selection of competent panel members and their training. The Agency periodically organises training of new audit experts. After completing the training, the participants are awarded with a certificate and are included in ASHE audit expert database, from which panel members are selected.

Five-member audit panels comprise 1 Croatian and 1 foreign representative of HEIs, 1 student representative, 1 representative of the industry/business sector and 1 representative of ASHE. The experience so far shows that such a composition of panel provides for an objective implementation of the procedure, encourages synergy and stimulates discussion - both among the panel members and stakeholders at HEIs. It should also be noted that decisions regarding the final assessment of HEI's QAS, as well as recommendations for its improvement, are reached by consensus. Quality of audit committee's work also depends on the selection of committee chair.

Assessment of audit committee's work is carried out by satisfaction survey of committee members and HEI that was subject to external QA audit procedure (see: Tables 2 and 3).



## **External QA audit in 2014**

After the workshop for representatives of HEIs that were included in 2014 Plan of external QA audits, HEIs appointed their coordinators that coordinated the procedure together with ASHE coordinators and audit panel members.

All the procedures were carried out without appeals. Final audit reports were adopted by the Accreditation Council and published on ASHE website (full version in Croatian and a summary in English). In accordance with recommendations included in final reports, Accreditation Council issued decisions on certification or re-audit after 18 months.

Final assessments of the evaluated QAS are presented in Table 1.

Table 1: Efficiency assessment of the evaluated QAS at HEIs included in Plan of external QA audits for 2014

Higher education institution	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:
University of Zagreb Faculty of Metallurgy	INITIAL/ DEVELOPED PHASE	INITIAL/ DEVELOPED PHASE	INITIAL/ DEVELOPED PHASE	DEVELOPED PHASE	DEVELOPED PHASE	INITIAL/ DEVELOPED PHASE	DEVELOPED PHASE	DEVELOPED PHASE	INITIAL/ DEVELOPED PHASE
Polytechnic of Zagreb	DEVELOPED PHASE	DEVELOPED PHASE	-	INITIAL/ DEVELOPED PHASE	DEVELOPED PHASE	DEVELOPED PHASE	DEVELOPED PHASE	DEVELOPED/ ADVANCED PHASE	DEVELOPED PHASE CERTIFICATE
University of Rijeka Faculty of Civil Engineering	DEVELOPED PHASE	DEVELOPED/ ADVANCED PHASE	DEVELOPED PHASE	DEVELOPED PHASE	DEVELOPED PHASE	DEVELOPED PHASE	DEVELOPED PHASE	ADVANCED PHASE	DEVELOPED PHASE CERTIFICATE
Polytechnic "Lavoslav Ružička" in Vukovar	INITIAL/ DEVELOPED PHASE	PRELIMINARY/INITIAL PHASE	-	INITIAL/ DEVELOPED PHASE	INITIAL/ DEVELOPED PHASE	DEVELOPED/ ADVANCED PHASE	INITIAL/ DEVELOPED PHASE	DEVELOPED PHASE	INITIAL/ DEVELOPED PHASE
Polytechnic Hrvatsko Zagorje in Krapina	PRELIMINARY/INITIAL PHASE	PRELIMINARY/INITIAL PHASE	-	INITIAL PHASE	INITIAL PHASE	INITIAL PHASE	INITIAL PHASE	INITIAL PHASE	INITIAL PHASE
University of Zagreb Faculty of Mechanical Engineering and Naval Architecture	DEVELOPED PHASE	DEVELOPED PHASE	INITIAL/ DEVELOPED PHASE	DEVELOPED PHASE	DEVELOPED PHASE	DEVELOPED/ ADVANCED PHASE	DEVELOPED PHASE	ADVANCED PHASE	DEVELOPED PHASE CERTIFICATE

Three out of six HEI QAS audited in 2014 - that of Polytechnic of Zagreb, University of Rijeka Faculty of Civil Engineering and University of Zagreb Faculty of Mechanical Engineering and Naval Architecture - were assessed as developed, thus meeting the requirements for a certificate, which was awarded to them.

The efficiency of the internal quality assurance system at the Polytechnic Hrvatsko Zagorje in Krapina was assessed to be in an initial stage of development, and QAS of the Polytechnic "Lavoslav Ružička" in Vukovar was given a transitory grade between initial and developed phase. Accreditation Council adopted panels' recommendation for a re-audit of the Polytechnic Hrvatsko Zagorje in Krapina and Polytechnic "Lavoslav Ružička" in Vukovar, and - considering that this was the institution's re-audit - a re-accreditation of the University of Zagreb Faculty of Metallurgy, to be carried out in the next re-accreditation cycle, as per decision of the Accreditation Council.

### **Efficiency analysis of the evaluated QAS at higher education institutions**

The adoption of Act on Quality Assurance in Science and Higher Education encouraged higher education institutions to regulate quality assurance with adequate documentation, regulations and manuals that represent a guide through individual areas of QA for all the stakeholders.

Quality assurance systems and quality assurance units were established at the evaluated institutions, the latter acting as advisory/administrative support to the management. The main task of QA units is to encourage the development of quality culture at institutions.

It has been found that the majority of evaluated institutions developed and adopted their QA documentation after the adoption of Act on Quality Assurance in Science and Higher Education in 2009 (in the period from 2011-2014), and some only during the external QA audit procedure.

Evaluated HEIs are aware of the need to include all the stakeholders in QA system. Following the Agency guidelines, main QA bodies - in addition to teaching staff, associate teachers and students - often also include representatives of non-teaching staff, and sometimes representatives of external stakeholders.

Evaluated HEIs recognize the need for systematic development of quality culture, in line with the ESG, and principle that HEIs are primarily responsible for quality of all their activities. Their positive attitude towards external evaluations should also be noted, as well as their understanding that a combination of internal and external evaluations contributes to an objective assessment of quality assurance system and all the activities at a HEI.

Findings show that ESG 1.1. and 1.2. present the greatest challenge for the evaluated institutions. One should, however, take into account the historical development of Croatian higher education institutions and their QAS. Croatian HEIs do not have a long tradition of developing and implementing documents related to ESG 1.1., which form the basis on which a functional quality assurance system is built. The majority of institutions developed and adopted the first versions of their QA documents after the adoption of the Act on Quality Assurance in Science and Higher

Education, which is reflected in the level of their implementation. A lack of monitoring and document revisions was also noted. External QA audits prompted HEIs to consider the ways in which they implement quality policies in their daily activities, and whether there is a need for their revision.

Only some of the evaluated institutions had a development strategy with defined strategic goals. HEIs that have implemented, or are planning to implement ISO quality management system were given recommendations to adequately integrate the two quality systems (ISO and ESG).

The evaluated higher education institutions carry out internal QA audits, but considering their lack of experience in this regard, there is some room for improvement, especially with quality assurance documentation and methodology used.

Approving, monitoring and periodical revision of programmes is closely related to the monitoring of relevant national legislation, and adhering to minimum quality indicators as prerequisites for further quality improvement of study programmes.

Analyses of study programmes are based on collected data and monitoring of the quality of accredited study programmes, in line with the defined indicators. At some institutions this is not carried out systematically. Properly defining the learning outcomes also present certain difficulties for institutions, hindering in many cases the implementation of outcome-based assessment.

Students are included in QAS activities, but the role of alumni and external stakeholders needs to be strengthened, particularly in revisions of study programmes and learning outcomes. For professional studies, cooperation with the regional business/industry sector carries a special importance.

Students are included in the evaluation of teaching, although they are not always informed of the results.

Some higher education institutions require greater transparency of QAS (with regard to clear definition of activities and responsibilities, collecting feedback from stakeholders, regular reporting, analyses etc.), which is also included in Audit Committee's recommendations.

Although resources related to student standard generally meet the basic student needs, some evaluated HEIs have problems with organizing a student restaurant.

Formal quality review of teaching staff is carried out within the process of election to teaching/scientific grade, in which the assessment of the quality of their work (via student survey) is taken into account.

Some evaluated HEIs do not carry out systematic planning of professional development of teaching staff (development of teaching competencies).

Opportunities for student mobility mostly exist (although at some HEIs students are not adequately informed about them), however, further efforts are needed in strengthening the international exchange of teaching and support staff, whose motivation for mobility is rather weak.

Recommendation given to all HEIs was to choose similar institutions in Croatia and abroad, for the purpose of comparative analyses and the exchange of good practice.

Evaluated institutions mostly publish their basic QAS documents, but should additionally intensify their efforts with regard to collecting, processing, analysing and publishing of data, as well as the use of analyses in planning. Once adopted, QAS documents are rarely revised. Higher education institutions were given recommendations to regularly revise and update their documentation on the basis of internal QA audit results, analyses and feedback from all the QAS stakeholders.

Highest grades were given for ESG 1.7. - publishing relevant, unbiased information on study programmes and levels.





HEIs were recommended to publish information on their comparative advantages and employability of their graduates.

HEIs were also recommended to align Croatian and English versions of their web sites, especially with regard to QA documentation.

## **Quality analysis of external QA audits in 2014**

Table 2 shows the results of the questionnaire on the effectiveness of external QA audits in 2014 that was sent to panel members.

Analysis of the panel members' feedback (a survey that was carried out as a form of self-evaluation and evaluation of implemented procedures) shows that all procedures have been carried out in line with the adopted documents, standards and criteria (average grade of 4.8). Panel members assessed their own performance and efficiency with the average grade of 4.4. The overall procedure was assessed with an average grade of 4.7.

Assessing the work of panel members in audit procedures so far, we can point out their accuracy, active participation in analysing the submitted documentation, ability to analyse data and provide suggestions for improvement, their teamwork, objectivity, affirmative approach to objects of evaluation, external evaluation procedure and the overall building of quality culture, and their openness to self-evaluation, learning and self-improvement.

Table 3 shows the results of the questionnaires sent to HEIs that were audited in 2014.

Questionnaires that are used for collecting feedback on satisfaction with the procedure are sent to higher education institutions at the end of audit procedure, upon the adoption of the final audit report.

Survey analysis showed that the question of applicability of standards and criteria is particularly challenging to HEIs, receiving an average grade of 3.7. Cooperation with ASHE coordinator was assessed with highest average grade of 4.7, and high grades were also given to the Audit Committees for being competent, objective and well-intentioned (average grades from 4.2-4.3).

Table 2: Results of the satisfaction surveys for audit committees in 2014 external QA audits

Higher education institution	University of Zagreb Faculty of Metallurgy	Polytechnic of Zagreb	University of Rijeka Faculty of Civil Engineering	Polytechnic "Lavoslav Ružička" in Vukovar	Polytechnic Hrvatsko Zagorje in Krapina	University of Zagreb Faculty of Mechanical Engineering and Naval Architecture	Average grade
Clarity of the QA audit procedure	4.67	5.00	4.50	4.80	5.00	5.00	<b>4.83</b>
Clarity of QA audit standards and criteria	4.67	4.75	4.50	4.80	5.00	4.75	<b>4.75</b>
Applicability of QA audit standards and criteria	4.67	4.75	4.25	4.60	5.00	4.50	<b>4.63</b>
Clarity of guidelines for preparing audit documentation	4.33	5.00	4.50	4.20	5.00	4.75	<b>4.63</b>
Usefulness of training for QA audit procedure	4.67	5.00	4.67	4.60	5.00	5.00	<b>4.82</b>
Cooperation with coordinator: a) before the site-visit	4.67	5.00	4.75	4.80	5.00	4.75	<b>4.83</b>
b) during the procedure	5.00	5.00	5.00	5.00	5.00	5.00	<b>5.00</b>
Overall assessment of the procedure	4.67	5.00	4.25	4.60	5.00	4.25	<b>4.63</b>
Quality of panel's work at the 1st panel meeting	4.33	5.00	4.00	4.40	5.00	4.75	<b>4.58</b>
Quality of panel's work at the 2nd panel meeting	4.67	5.00	4.25	4.80	5.00	4.75	<b>4.75</b>
Audit was conducted in accordance with the ASHE QA Manual, ASHE QA Ordinance and ESG	4.67	5.00	5.00	4.60	5.00	4.50	<b>4.80</b>
All the stages of audit procedure were carried out in accordance with planned goals and adopted methods of work	4.67	5.00	5.00	4.80	5.00	4.50	<b>4.83</b>
Satisfaction with own performance	4.33	4.50	4.00	4.60	5.00	4.00	<b>4.41</b>
<b>Average grade</b>	<b>4.62</b>	<b>4.92</b>	<b>4.51</b>	<b>4.66</b>	<b>5.00</b>	<b>4.65</b>	<b>4.73</b>

Table 3: Results of the satisfaction surveys for evaluated HEIs in 2014 external QA audits

Higher education institution	University of Zagreb Faculty of Metallurgy	Polytechnic of Zagreb	University of Rijeka Faculty of Civil Engineering	Polytechnic "Lavoslav Ružička" in Vukovar	Polytechnic Hrvatsko Zagorje in Krapina*	University of Zagreb Faculty of Mechanical Engineering and Naval Architecture	Average grade
Clarity of the QA audit procedure	3.67	4.08	4.20	3.86	-	4.20	<b>4.00</b>
Clarity of QA audit standards and criteria	3.44	3.95	3.90	3.57	-	4.00	<b>3.77</b>
Applicability of QA audit standards and criteria	3.22	3.98	4.00	3.71	-	3.90	<b>3.76</b>
Clarity of guidelines for preparing audit documentation	3.56	3.74	4.30	3.57	-	3.80	<b>3.79</b>
Overall assessment of audit procedure:	3.44	3.98	4.00	3.86	-	4.00	<b>3.86</b>
Cooperation with ASHE coordinator during the procedure	4.00	4.06	4.90	4.00	-	4.50	<b>4.29</b>
HEI was given opportunity to adequately present its QAS	4.11	4.35	4.80	4.29	-	4.00	<b>4.31</b>
Communication between audit panel and QAS stakeholders	4.00	4.40	4.78	4.00	-	3.89	<b>4.21</b>
The Audit Committee was:	3.78	4.51	4.80	3.86	-	4.00	<b>4.19</b>
a) Competent	3.78	4.51	4.80	3.86	-	4.00	<b>4.19</b>
b) Objective	3.78	4.50	4.90	4.14	-	4.40	<b>4.34</b>
c) Well-informed	3.67	4.25	4.30	3.86	-	3.70	<b>3.96</b>
d) Well-intentioned	4.00	4.68	4.90	4.00	-	4.20	<b>4.36</b>
e) Constructive	3.89	4.35	4.70	4.00	-	3.90	<b>4.17</b>
Observations were clearly, objectively and appropriately presented in the report	3.78	4.23	4.20	4.14	-	4.10	<b>4.09</b>
Recommendations for improvement were clear and applicable	3.38	4.15	4.10	3.86	-	4.20	<b>3.94</b>
External QA audit provided added value to HEI	3.44	4.54	4.40	3.43	-	4.10	<b>3.98</b>
Assessment of own contribution to discussions with audit panel during the site-visit	3.33	4.10	4.20	4.14	-	3.90	<b>3.93</b>
External QA audit allows for improvement of HEI QAS	3.67	4.32	4.30	4.00	-	4.20	<b>4.10</b>
<b>Average grade</b>	<b>3.68</b>	<b>4.23</b>	<b>4.43</b>	<b>3.91</b>	-	<b>4.06</b>	<b>4.06</b>

\*Polytechnic Hrvatsko Zagorje in Krapina did not submit feedback



### **Conclusion:**

External QA audit procedure contributed to better understanding of how significant management's support is to quality assurance system at HEIs, and that a functional QA system brings added value to the institution.

Although the majority of HEIs collect information on their activities and results, these need to be regularly analysed in accordance with the set quality indicators, for the purpose of improvement, development, recognition of good practice and excellence, as well as identifying deficiencies and risks. It is necessary to continuously inform all the QAS stakeholders on the importance of their contribution to development of QAS, to encourage their cooperation and promote development of quality culture in academic and non-academic environment.

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