

Quality assurance in times of crisis: example of Croatian Agency for Science and Higher Education

Jasmina Havranek, Sandra Bezjak, Agency for Science and Higher Education, Croatia

ABSTRACT. Higher education system in Croatia has in recent years been undergoing comprehensive reforms. In the period from 2005-2009, study programmes have been aligned with the Bologna process, regional public polytechnics have been established, there were significant investments in development of regional public university campuses and increase of private initiative in higher education, and the establishment of Agency for Science and Higher Education initiated the establishment of quality assurance systems at HEIs.

With recession, opportunities for investment in higher education and science have been reduced, which raised questions of the system efficiency and rationalization, as well as the introduction of new models of financing. Mergers of smaller, especially private higher education institution has been noted, and questions have been raised of the use of new learning and teaching technologies and better alignment of study programmes with labour market needs.

There is a strong emphasis on quality assurance in higher education and science. Agency for Science and Higher Education carries out various external evaluation procedures, in addition to other activities indirectly related to quality enhancement. Together, they provide better interconnection of data in science and higher education, and a base for evidence-based policy making.

In the next stage of the reforms, an emphasis should be put on further development of quality assurance systems in higher education, in accordance with the newly adopted Croatian Qualifications Framework Act, with the main goal of establishing a better link between supply of education and labour market demands.

KEYWORDS: *Bologna reform, Evidence based policy making, Higher education reforms, Qualifications framework, Quality assurance, Supply of education and labour market demands*

Introduction

The Republic of Croatia has adopted a strategic goal to be a part of the European Higher Education Area (EHEA); to transform into a knowledge-based society and develop a knowledge based economy. Looking at education development trends in Europe and throughout the world, Croatia has recognized the need to transform its educational system to meet the new demands.

The aim is to develop a more flexible and effective higher education system that is compatible with other higher education systems within the European Higher Education Area (EHEA). Process of harmonization of the Croatian higher education system with EHEA has been accompanied by changing the roles and responsibilities of all the stakeholders, changes of legislation as well as building of quality culture and developing quality assurance processes.

Reform of higher education in Croatia

By signing the Bologna Declaration in 2001, the Republic of Croatia committed itself to achieving the above mentioned goals. These goals included the introduction of new scheme of study programmes based on a binary, three-cycle system, and the ECTS system. Legislative framework for these changes was the Act on Scientific Activity and Higher Education (Official Gazette, 2003).

The first step in the reform of Croatian higher education has been the reform of undergraduate, graduate and professional study programmes in line with Bologna cycles in 2005, when first students were enrolled to Bologna programmes. In the 2005-2009 period, the postgraduate programmes were also restructured. The restructuring required all these study programmes to be accredited as new ones. This involved concerted efforts of more than 2000 Croatian and foreign reviewers, and the whole procedure was implemented via a custom-made information system.

In the same period, several new regional public polytechnics were established, in accordance with the strategic commitment for polycentric development and an increase of highly educated population, which was accompanied with larger investments in equipping and developing of regional university campuses. At the same time there was an increase of private initiative in higher

education. As a result of expanding the network of higher education institutions, there are currently 10 universities, 15 polytechnics and 27 colleges in Croatia.

2006 saw the beginning of intensive work on development of Croatian Qualifications Framework, which resulted in the adoption of Croatian Qualifications Framework Act (Official Gazette, 2013) and beginning of its implementation.

Significant changes were initiated in the Croatian education system in the academic year 2009/2010 with the introduction of State Matura, an exit exam at the end of four-year secondary education, and with the launch of National Information and Application System for Higher Education, a centralized system of student enrolment to all undergraduate study programmes that also takes into account the results of State Matura. This centralized system of enrolment replaced the earlier method of entrance examinations at individual higher education institution, and contributed to ensuring equal and transparent access to higher education for all candidates.

In this period there was also a strong emphasis on development of external and internal quality assurance systems in higher education and science. With the Education Sector Development Plan 2005-2010 (Ministry of Science, Education and Sports, 2005), improving the quality of education was defined as a strategic priority, and development of internal and external quality assurance systems as one of the crucial activities for achieving this. In accordance with this priority, Agency for Science and Higher Education was established in 2005, initiating the development of quality assurance system in higher education and science. After numerous challenges the Agency has met in the early years of its operation, its role was re-defined with the 2009 Act on Quality Assurance in Science and Higher Education (Official Gazette, 2009), which strengthened its independence and confirmed its role as the sole national body responsible for the implementation of external quality assurance procedures.

The adoption of this Act was the final step towards the alignment of Croatian higher education system with the *Standards and Guidelines for the European Higher Education Area* (ENQA, 2005) - ESG. The adherence of the Agency to the ESG was the topic of international external review of the Agency, which served as a basis for achieving full ENQA membership in 2011, as well as inclusion in EQAR.

These comprehensive reforms have been implemented with the

goal of aligning the Croatian higher education with EHEA, increasing mobility, and contributing to the recognisability and reliability of Croatian higher education qualifications.

External quality assurance activities implemented by the Agency for Science and Higher Education

Mission of the Agency for Science and Higher Education is to continuously support quality development of higher education and science, thus contributing to social and economic development.

This mission is realized through implementation of external quality assurance procedures in higher education and science, encouraging development of internal quality culture at institutions, as well as by implementation of other activities that are indirectly related to quality assurance and quality enhancement.

The external quality assurance procedures implemented by the Agency are: accreditation (initial accreditation and re-accreditation) of higher education institutions, study programmes and scientific organizations; thematic evaluations and quality assurance audits.

In defining these procedures, the Agency took into account the ESG guidelines and recommendations, particularly fitness for purpose in the context of current state of affairs in the Croatian science and higher education. By following the latest national and international trends (ENQA, 2012), procedures are being continuously developed. In the early years of Agency's operation, there was a strong emphasis on initial accreditation of study programmes, since in this period all programmes in Croatia were restructured in line with the Bologna principles and the programme accreditation enabled closer inspection of the programme content.

In the second phase, after the Bologna study programmes were launched, and after the adoption of the new legal framework in 2009, a need arose to change the concept and the emphasis from initial accreditation to the institutional re-accreditation, which provides a comprehensive insight in all activities of an institution; not only research and teaching, but also the administrative aspects of its work and dedication to ensuring and promoting quality. The outcome of re-accreditation procedure is a report with a quality grade, which serves as a basis for the accreditation decision. The law stipulates that all higher education institutions and scientific

organizations are re-accredited in five years cycles. First cycle started in 2010 and will be completed in 2015.

Quality monitoring mechanisms and the level of their integration in an efficient and effective quality assurance system at an institution is assessed within the audit procedure. If the quality assurance system of the audited HEI meets the stated criteria, it receives a certificate valid for a five-year period. If the criteria are not met, HEI becomes subject to re-audit after an 18 months period.

Due to the identified need to look into specific topics or phenomena in more detail, a model of thematic evaluation was developed. This model was implemented at all public research institutes in 2011, looking into their efficiency and justifiability of their public funding. A thematic evaluation of PhD studies is currently underway.

In addition to the external quality assurance procedures in science and higher education, ASHE also carries out other activities indirectly related to quality assurance and quality improvement, such as: data collection and processing, registration of candidates to undergraduate study programmes through the National Information and Application System for Higher Education, providing support to strategic and professional bodies in science and higher education, etc.

New challenges in further development of Croatian higher education and the role of Agency for Science and Higher Education

With recession, opportunities for investment in the higher education and science have been reduced, which raised questions of the system efficiency and rationalization, and a need for revision of current policy framework and defining a new one.

New national strategy for education, science and technology is expected to be completed in July 2013, after which there will be a public debate that will include prominent representatives from the areas of education and science, but also the labour market. Work on this strategy touched some key issues concerning the development of higher education and science, with an emphasis on quality assurance and improvement, which was defined as one of the strategic priorities in the next period.

External quality assurance procedures implemented by the Agency,

in addition to other Agency activities indirectly related to quality assurance and improvement, are the basis for strategic planning of future development of higher education and science.

Trend of establishing new HEIs that resulted in a significant increase in the number of higher education institutions and study programmes, particularly in the period from 2005 to 2009, ceased in the recent years due to recession. Currently there are no initiatives for the establishment of new higher education institutions but just the opposite - smaller, especially private higher education institution, have started merging in an effort to adapt to existing challenges and ensure their own survival. This consolidation has in recent years resulted in a slow decrease of number of higher education institutions in Croatia.

A need also arises to rationalize the existing network of higher education institutions and study programmes, but also scientific organizations. External quality assurance procedures (particularly re-accreditation that all HEIs and scientific organization in Croatia have to undergo by 2015) should contribute to improving the quality of higher education and science, and by extension, economic and social development.

One of the most important current issues is the need to change the existing, traditional method of funding in higher education and science. There are efforts to interlink future funding from the state budget with institutional quality and efficiency, i.e. the results of external quality evaluations conducted by the Agency. Accordingly, programme contracts between institutions and relevant ministry should become the basis of an effective system of funding in higher education and science. Before introducing these comprehensive programme contracts that would cover all the core activities of higher education institutions and research organizations, the Ministry has launched a three-year pilot project in collaboration with the World Bank, which should contribute to gaining practical experience in the development of the concept of programme contracts and development of legal framework for the new system of funding. The pilot started in academic year 2012/2013 and is for now limited to the improvement of teaching and study programmes. According to the discussed model of programme contracts, the relevant Ministry is tasked with defining common goals that HEIs need to reach, while HEIs propose activities that will lead to achieving those goals, as well as indicators for monitoring

the achievement of objectives. Activities, results and indicators are the subject of negotiations between HEI and relevant Ministry. Programme contracts represent an important instrument for the implementation of national policy for higher education and science, while respecting HEIs' autonomy and internal quality assurance systems.

High unemployment of young people, including highly educated population who is entering the labour market for the first time, raises the issue of whether study programmes are adequately aligned with labour market needs. There is practically no information on this due to lack of systematic monitoring of graduates on both institutional and national levels. Identifying this problem, Agency for Science and Higher Education started with the activities for introducing the monitoring of employment of graduates on a national level. The data collected will be used for the improvement of study programmes and their alignment with the labour market needs. Publishing of this data will also provide useful information to prospective students who are enrolling to study programmes through the National Information and Application System for Higher Education.

In addition to these activities, the main instrument for the further improvement of study programmes with regard to labour market needs is the recently adopted Croatian Qualifications Framework Act. One of the main challenges in the future will be the implementation of the said Act, i.e. further development of quality assurance that relies on Croatian Qualifications Framework as its instrument. Development of Croatian Qualifications Framework began in 2006 with the establishing of a committee headed by the Minister. In 2007, the government of the Republic of Croatia adopted the Baseline of the Croatian Qualifications Framework. Two ordinances are yet to be adopted - Ordinance on CROQF Register and Ordinance on recognition and validation of non-formal and informal learning - in addition to setting up IT support for the Register and formally establishing bodies responsible for the implementation of CROQF. All the qualifications that will find their place in the CROQF Register shall, in accordance with the European Commission protocol, carry the quality mark of CROQF and EQF. CROQF is an instrument of regulating qualifications that will enable linking of qualification levels in Croatia with EQF levels, as well as with qualifications frameworks in other countries. The focus is firmly put on the learning outcomes - competencies that individual has acquired through learning and

proved thereafter. One of the important elements of CROQF is harmonization of education and labour market needs. Employers will have an important role in defining learning outcomes; they will define competencies for specific occupations based on their needs, which will consequently be used for creating learning outcomes at the level of study programmes. This way, the education system will be directly connected with the labour market (MSES, 2013).

Yet another challenge in the following period relates to student and teacher mobility, and internationalisation in general. What has been noted through procedures that ASHE carried out thus far is that this is a segment where additional attention is needed on a national level, being that it is crucial for excellence in higher education and science. Soon to be adopted legislative framework shall adequately regulate the issue of transnational higher education in Croatia, including international joint studies.

Need for rationalization in the system of higher education raises the issue of the use of new technologies in the educational process. Although some programmes have in recent years started with online teaching, to some extent, there are still no accredited online study programmes in Croatia. There is, however, a great interest for such programmes, and for adequately regulating this issue. The existing legal framework allows for a possibility of online study programmes. Higher education institutions can propose such programmes in all disciplines and at all levels. However, for such a programme to be accredited by the Agency, additional criteria relating specifically to online studies need to be met along with the existing accreditation criteria relevant to all study programmes. These criteria have been adopted at the national level and apply to all study programmes in which at least 50% of the curriculum is delivered online, and include specific criteria for evaluating online programmes (purpose of the programme, infrastructure and technical requirements, organization and administration, HR requirements), instructions for drafting proposals of online study programmes and instructions for student assessment.

One of the issues that also need to be addressed is the interlinking of existing information systems in higher education and science in order to collect, process and analyse data important for evidence-based decision and policy making. The Agency collects a large amount of valuable data through its external QA evaluation procedures, but the challenges it faces are related to dispersion and discontinuity of

data due to multitude of databases and information systems, and consequent non-comparability of data for monitoring trends. The task of the Ministry and the Agency is to provide not just technical infrastructure for collecting data on a national level, but also to clearly identify the entities, establish registers, and define desired indicators in line with strategic commitment and quality objectives, in addition to adopting regulatory framework that will commit the stakeholders to providing data. In this joint effort, it is important not to burden HEIs with repeated requests for the same data. Extra efforts are therefore needed to establish a comprehensive database and information system that would enable statistical reports and analyses on a national level, as a basis for policy-making.

Conclusion

Today's global environment, with changes faster than ever before, put new challenges before the individual and society, and require quick adaptation to new circumstances. These challenges greatly affect the system of higher education and science, which is expected to adequately respond and offer solutions. This is not an easy task considering the very specific characteristics of the system that was built over a long period of time.

In an effort to ensure that higher education and science adequately respond to new demands and actively contribute to development of society and economy, system reforms were initiated in number of countries. In Croatia, the reforms have to some extent started after its independence in the 1990's, and were fully launched in 2005 with the adoption of new legal framework that allowed for structural changes, with a special emphasis on quality. By the time Croatia entered the recession in 2009/2010, these changes were accompanied by increased investments in higher education and science.

Global crisis and reduced investment opportunities in higher education and science, along with the requirements for greater quality, raised questions of further reforms, which should be preceded by the new strategy of education, science and technology for the following period.

In the course of work on the new strategy and reform plans, Agency for Science and Higher Education sought to contribute to

the overall activities primarily through external evaluations and with collecting, processing and analysing data at the system level, in order to enhance the evidence-based policy making.

Namely, problems that occur in collecting reliable data result in an inadequate research in the area of higher education and science. Relatively small number of relevant publications and researchers in this area at the national level present a challenge for the whole society. It is not uncommon that reform measures in higher education and science are not preceded by adequate analyses and research, which ultimately makes it impossible to adequately assess the appropriateness and effectiveness of the reforms, or to plan further steps. In this context, the Agency seeks to participate in all relevant studies on a national level and is an important stakeholder in research within these areas.

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Sintesi

Con la firma della dichiarazione di Bologna nel 2001, la Repubblica croata si è impegnata ad allineare progressivamente il proprio sistema educativo agli standard europei. Nel 2005 è stata istituita l'Agency for Science and Higher Education, che gestisce le procedure di accreditamento e ri-accreditamento delle istituzioni scolastiche inferiori e superiori, dei programmi e degli enti di ricerca nazionali. L'Agency conduce, inoltre, altre attività indirettamente connesse con la qualità dell'insegnamento, raccogliendo e analizzando i dati relativi al sistema educativo. Con l'emanazione, nel 2009, del Qualification Framework Act, il governo croato ha voluto rafforzare e sostenere il sistema di valutazione della qualità, potenziando l'autonomia dell'Agency, con lo scopo principale di armonizzare il sistema educativo con le esigenze del mercato del lavoro globale, sia a livello graduate sia a livello under-graduate.

L'evoluzione del sistema croato è attualmente ancora in pieno svolgimento – nonostante le crescenti difficoltà finanziarie, legate alla crisi economica. Le modalità di finanziamento pubblico – ma anche privato - delle istituzioni di formazione e ricerca, in particolare, sono in evoluzione anche grazie all'iniziativa del Ministero dell'educazione di avviare un progetto con la Banca mondiale per l'acquisizione di nuove expertise in questo settore. L'obiettivo è quello di ristrutturare l'attuale sistema di finanziamento in modo da creare una interconnessione efficace tra mondo della formazione e mondo del lavoro, e facilitando l'inserimento lavorativo e professionale di diplomati e laureati, anche nell'ottica dell'internazionalizzazione e del potenziamento delle nuove tecnologie.