

The Implementation of European Standards for Accreditation of Engineering Programmes in Russia

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Abstract

The paper presents the recent developments of Russian higher education in view of implementation of the key aspects of the Bologna process. The problems of Russian higher education and the process of modernizing the system of higher education over the past fifteen years are highlighted. The recent legislative initiatives aimed at reforming the national system of higher education in accordance with the main principles of the Bologna process are presented. The issues of quality assurance, in particular, the interaction of governmental (institutional) and professional (programme) accreditation are discussed.

The development of the national system for professional accreditation in engineering education is described. The Russian Association for Engineering Education (RAEE) actively participates in implementation of the EUR-ACE Standards for accrediting of engineering programmes as a member of the European Network for Accreditation of Engineering Education (ENAE). The progress and the issues of implementation of EUR-ACE standards in Russia are discussed.

Keywords: Accreditation, ENAE, EUR-ACE, RAEE

1. INTRODUCTION

The Russian higher education system remains relatively centralised. The Federal Government provides accreditation and licensing for all institutions, private or public, it establishes considerably detailed unified standards of higher education programmes defining the curricula. Development of an up-to-date system of continuing vocational education, enhancement of quality of HEIs programmes, certification and accreditation of curricula are among the issues specified by the “Priorities of development of the education system” defined by the Government of the Russian Federation and approved in 2005 [1]. The document underlines the need to create an effective market of educational services to address the needs of the labour market and all stakeholders of higher education. This implies, as a consequence, the necessity of introducing radically new mechanisms of certification and accreditation of curricula that will require a new organisational and legal framework and will engage professional associations, academic community and employers. The Law of the Russian Federation “On Education” [2, 3] provides both for state and professional accreditation. The Article 37 stipulates that “...within the duties of the state educational authorities are... state accreditation of educational establishments and encouragement of their professional accreditation”. While the main objective of state accreditation is supervision and attestation of HEIs as a body, professional accreditation primarily aims at ongoing programme improvement. Accreditation by professional community (running by the Russian Association for Engineering Education (RAEE) in engineering) ensures that graduates of an accredited programme are prepared adequately for engineering practice [4].

2. PRO-EAST PROJECT

Assurance of high quality of engineering education remains a topical issue to provide highly qualified specialists for national economy and therefore ensure the country’s progress. Increasing investment and, at the same time,

international cooperation in the field of professional accreditation will continue to be a fundamental resource for the country's sustainable development. Cooperation in quality assurance to develop common criteria and methodologies is a key dimension of the Bologna process that the Russian Federation joined in September 2003. The participation of RAEE in the EUR-ACE project [5] and in the ENAEE network [6] as a full partner has been an important step towards harmonization of Russian national system for quality assurance in engineering education with the common European system of quality assurance being created within the context of the Bologna process.

The project (PRO-EAST) [7] was elaborated as a complementary measure to the EUR-ACE project aimed to elaboration of European system for accreditation of engineering programmes within the Bologna Process and the European Qualification Framework. The EUR-ACE project has been supported by the Tempus and Socrates programmes in 2004-06. The final results of the project were presented in public meetings in Moscow and in Bruxelles in spring of 2006. The major outcome of the EUR-ACE project was the development of the Framework Standards for the accreditation of engineering programmes as well as procedures for their implementation. An important outcome of the EUR-ACE project has been the establishment as a non-profit International Association of the "European Network for Accreditation of Engineering Education" (ENAEE), formally founded in Bruxelles on 8 February 2006 by 14 partners. The main objective of the PRO-EAST project was the promotion and implementation of the EUR-ACE standards in the Russian Federation, i.e. dissemination of the EUR-ACE standards for accrediting engineering programmes to the broad engineering community of Russian HEIs; approbation in Russian HEIs of the EUR-ACE criteria and procedures and awarding the "EUR-ACE label" to accredited programmes.

The PRO-EAST project agenda includes five stages.

Stage 1: The main event of the first stage of the project was a dissemination seminar for representatives of Russian HEIs in Moscow, Russia, March 27-28, 2007. The PRO-EAST project was presented to more than 150 participants from 60 Russian HEIs. The Standards and procedures for accrediting engineering programmes elaborated within the EUR-ACE project, the recognition of the programmes accredited against these standards and the modus operandi of the recently founded European Network for Accreditation of Engineering Education was discussed. The programme of seminar also included a workshop for the RAEE experts. A call for HEIs interested in accrediting their programmes according to the EUR-ACE standards was issued. As result of this stage, the candidate programmes for accreditation were identified. They were two programmes of the Tomsk Polytechnic University (TPU) and two programmes of the Ufa State Petroleum Technological University (USPTU).

Stage 2: Training of academic staff and preparation of self-evaluation reports. The project presumed that academic staff of HEIs which programmes would be evaluated, had to acquire the knowledge on preparation of self-evaluation report according the EUR-ACE Standards. Training visits at TPU, (06-10/06/07 by Dr. Wasser, ASIIN) and at USPTU (26-28/06/07 by Prof. Freeston, EC UK) were organized for presenting EUR-ACE Standards and advising academic staff (about 50 faculties) on preparation of self study reports.

Guidelines for evaluation of educational programmes and for preparation of self study were elaborated by RAEE and distributed among the project partners to be evaluated on how RAEE standards and procedures are compatible with the EUR-ACE Framework Standards.

Stage 3: Workshop for experts. Training courses and workshops were organized in Rome, Italy, May 9-11, 2007, in order to train experts to conduct evaluation of educational programmes in accordance with the EUR-ACE standards and procedures and ENQA Standards and Guidelines for Quality Assurance in the European Higher Education Area. These experts are expected to work as members of international evaluation teams running the ENAEE accreditation awarding the EUR-ACE label. There was a broad discussion of EUR-ACE standards and procedures, a sharing of experience of 23 experts in programme accreditation and quality assurance from SEFI, FEANI, Engineering Council UK, CoPI, ASIIN and RAEE.

Stage 4: Accreditation visits to Russian HEIs. The on-campus visits to HEIs selected at stage 1 were carried out to evaluate programmes in accordance with European standards for engineering education. The evaluations have been run by the panel included the peers from the RAEE and from European partners of the project. The examining team followed closely the procedure set out in the Guidelines for Evaluation of Educational Programmes in Engineering and Technology. Besides of evaluation of programmes, the representatives of the European agencies observed how the requirements of the EUR-ACE Framework Standards for both first and second cycle programmes were incorporated into the RAEE criteria and implemented in the accreditation process.

The Guidelines elaborated in stage 2 and revised with recommendations both of the European project partners and of the Russian experts were updated by the RAEE.

Stage 5: The project was concluded with the final dissemination seminar, held in Moscow, November 20-22, 2007, within the Annual Forum “Quality Assurance of Professional Education”. The results of the PRO-EAST project were presented to about 280 Russian and foreign representatives of HEIs. The implemented evaluation methods and accreditation were discussed and some EUR-ACE labels were awarded. During the plenary session report on the project outputs “Implementation of the European Standards EUR-ACE in Russia” was broadcasted to all Russian regions.

3. CONCLUSIONS

The PRO-EAST project contributed to the implementation of the EUR-ACE Standards in the Russian Federation through their dissemination to the broad engineering community and pilot awarding the EUR-ACE labels to accredited programmes. The EUR-ACE labels are now awarded to 10 engineering programmes accredited by the RAEE Accreditation Centre. The effective system of “EUR-ACE Label”, accepted in EHEA, will significantly contribute to the objectives of the Bologna process and facilitate the recognition of engineering graduates qualifications throughout Europe. The RAEE participation in the EUR-ACE project and its follow-ups is an important step towards harmonization of Russian Higher Education and national system of accreditation in engineering education with the common European system of quality assurance being created within the context of the Bologna process.

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