

Quality Assurance in Russian Universities in the Context of the Bologna Process

Vera V. Azaryeva,

PhD, Director, Center for Quality Management in Education, St.Petersburg State
Electrotechnical University "LETI",
VVAzaryeva@mail.eltech.ru

Sergey A. Stepanov,

Professor, Chair, Department of Quality Systems Management, St.Petersburg State
Electrotechnical University "LETI", SASStepanov@mail.eltech.ru

Sergey O. Shaposhnikov,

Associate Professor, Department of Quality Systems Management, St.Petersburg State
Electrotechnical University "LETI",
SOShaposhnikov@eltech.ru

Keywords: Quality Assurance, Higher Education, Bologna Process

Category: Conceptual and research paper

The Bologna Declaration adopted in 1999 initiated dramatic reforms in the European higher education. The process is characterized by both its width (carried out on the European, national and university levels) and involvement of more and more countries striving for developing the European Higher Education Area by 2010. According to the Russian national concept of higher education modernization for the period till 2010, the main goal of the national policy in education is **assurance of high quality of education** based on the preservation of its fundamental character and provision of compliance with the present and future needs and demands of individuals, society and the state.

Successful achievement of this goal by educational institutions (EI) depends upon a set of factors with effective management being the key one. The experience of many national and foreign companies and institutions shows that introducing the Quality Management principles as one of the key components of the organization's management is essential for improving the management in today's business environment. This goal is achieved by introducing the GOST R ISO 9000-2001 standards as well as by applying the methods and tools of Total Quality Management (TQM). EIs to a great extent determine the development of the intellectual,

scientific, technical and economical potential of any state. Thus, the necessity is evident to use the TQM principles in higher education, primarily in terms of the quality of provided services and the results of academic and research activities.

The Quality Management issues in the Russian higher education have been recognized of top priority. Starting 2000, the Ministry for Education of the Russian Federation has been conducting the University Quality Assurance Systems contest (1) which made many universities to start activities on developing and improving their Quality Management Systems. It is worth mentioning that in the period of 2000 – 2006 about 260 Russian universities took part in the contest. Nowadays, many universities are involved in activities on the developing, introducing and certifying their Quality Management Systems in accordance with the requirements and recommendations of the ISO 9000:2000 (GOST R ISO 9000-2001) international standards on Quality Management. As of today, more than 50 universities have been certified on the institutional or departmental level.

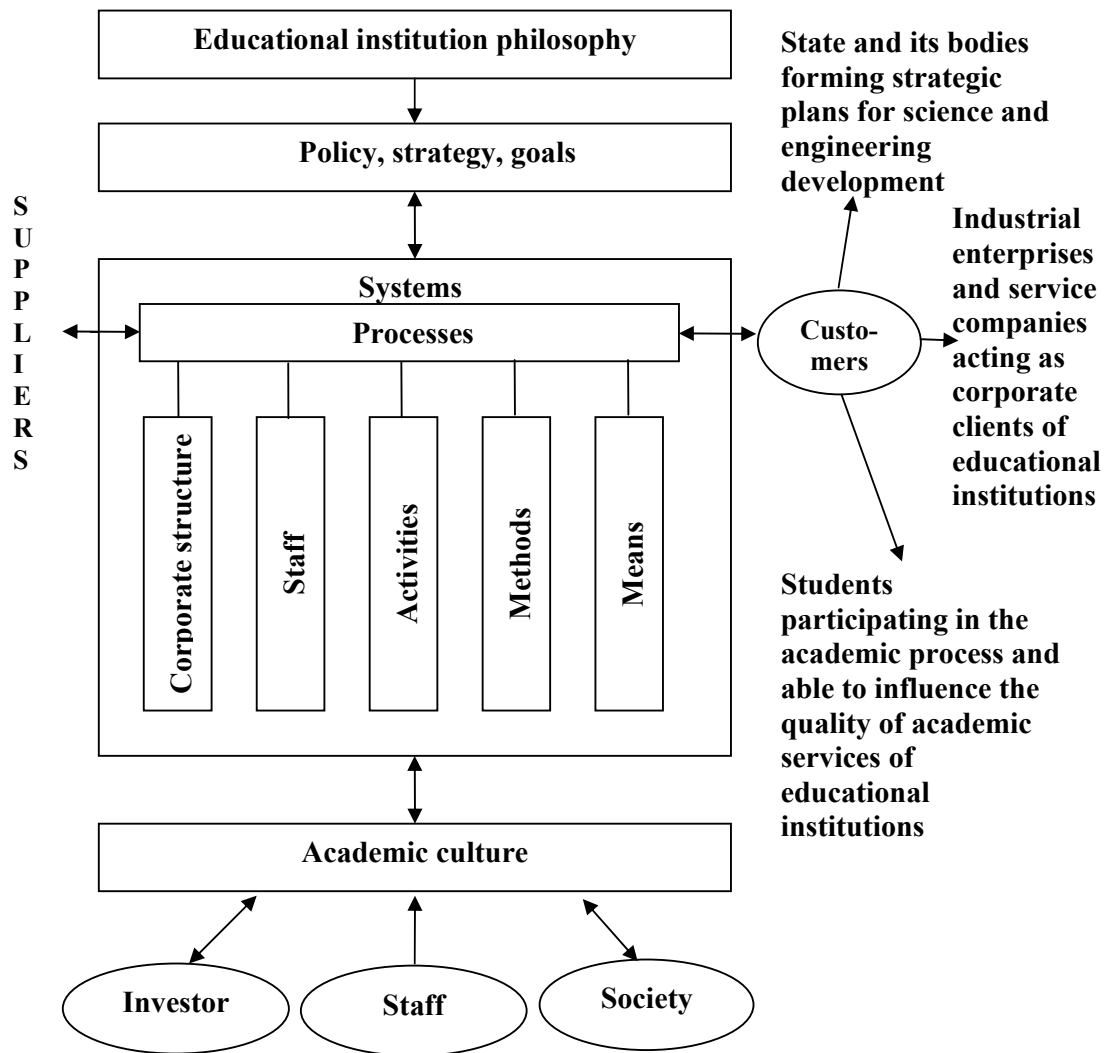
From the TQM point of view, an EI shall be considered an equal member of a group of partners (stakeholders) which are united by common interests and are constituting a certain interaction environment (Puzankov et al. 2003). Among the stakeholders, along with the suppliers and customers (clients), we should also mention the academic staff, investors and the society, as a whole. The teaching staff keeps a special position in this list. It should be considered as both the partners of the work process and the institutional ingredient. A systematic model of an EI from the TQM standpoint is presented at fig.1.

The philosophy of a higher education institution management (fig.1) includes opinions, views and visions of the top management concerning strategic goals and functions of the organization. Based on the management philosophy, strategies and policies are developed describing the fundamental strategic goals and tasks for the institution's management. The strategy determines which way the institution's potential shall be developed and how it has to be used to achieve the goals. The operational goals are formed by the management based on the institution's policies and strategies. It allows to make the strategic goals more concrete and determine the activities for achieving them.

Thus, the philosophy of the EI's management serves the basis for strategy, policy and goals of the top management. It also helps to determine the key indicators for developing the management system and the decision implementation system. In the course of the institution's work processes all material and non-material assets are created so the processes are to be considered as the key element of all subsystems of the institution uniting all other elements of the system, i.e. management, staff, activities, methods, tools and elements of the organizational structure.

Performance of subsystems depends crucially upon the organization's culture which comprises all existing traditions, habits and regulations which ensure the unity of the EI and its adaptability to the changing environment.

Fig.1. Systematic model of an educational institution from the TQM standpoint



The main approach and principles of TQM which shall serve a basis for developing the management system of an EI can be symbolically presented as a so called Quality House (see fig.2). The main components of the Quality House for EIs are:

- The Roof which is a structure of EI interacting systems (academic, social, managerial);
- The Pillars which correspond to five basic TQM principles for EI – social responsibility, customers and their satisfaction orientation, continuous improvement of the system and innovations, employees orientation, their involvement and motivation, confident management;
- The four cornerstones of the basis which determine different levels (types) of planning in the institution;
- The basis which is the corporate co-operation providing essential ties of the EI with the society and which is the most important element for the stability of the structure.

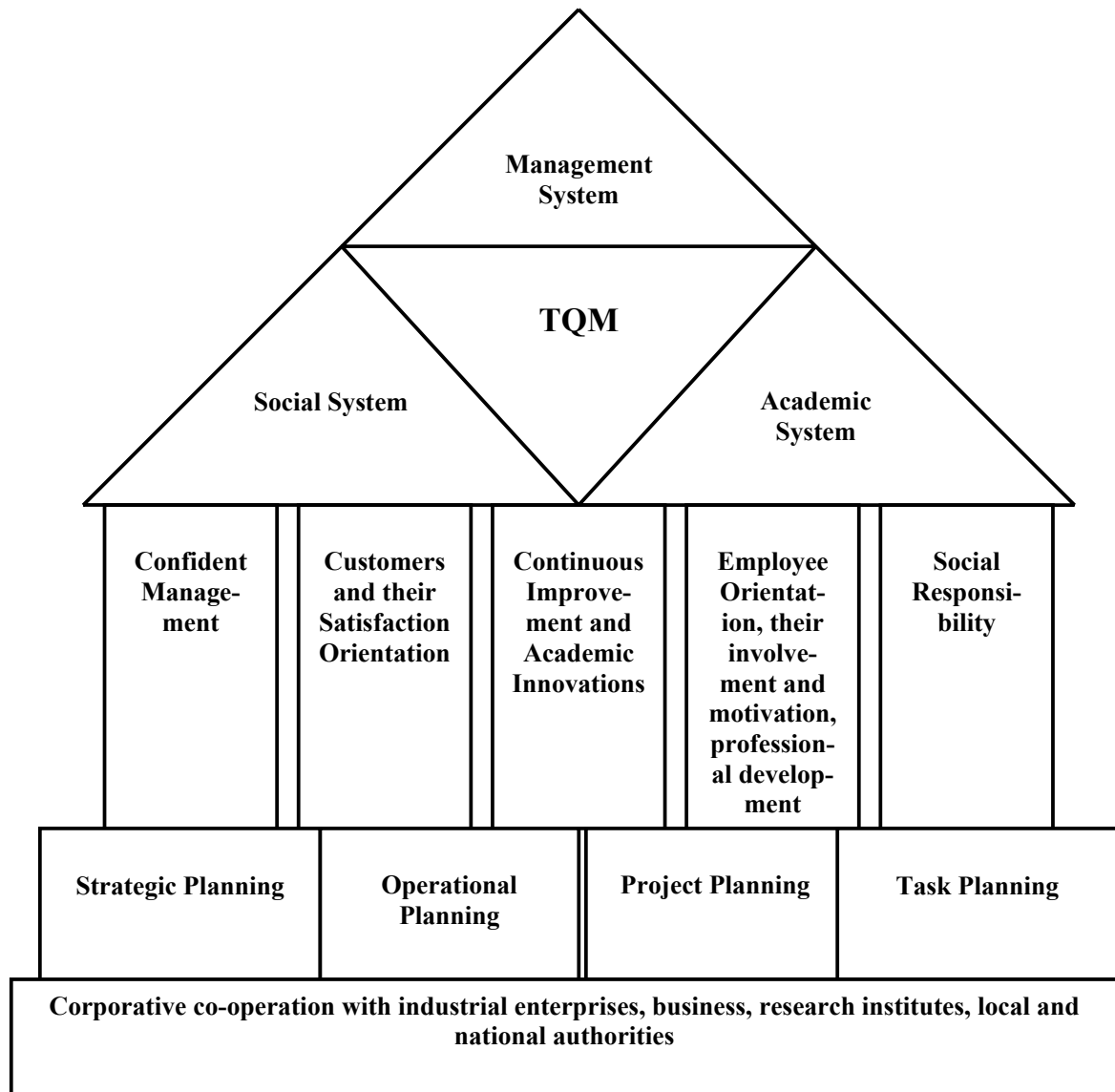


Fig. 2. The Quality House for educational institutions

The Quality House shown in fig.2 includes a structure consisting of three interacting subsystems which are the management subsystem, the academic subsystem and the social subsystem. The subsystems are united by TQM principles. Successful introduction of TQM principles and effective efforts on the continuous quality improvement in EIs require the top management to recognize the importance of these subsystems and the systematic approach to management. Only if the approach to management is systematic, a full feedback from customers is possible, both internal and external, for developing strategic plans and the Quality Plans integrated into them. The principle of the systematic approach to management is often considered the supplementary TQM principle.

One of the founders of the Quality Management, E. Demming wrote: “People work in a system. The duty of a manager is to work on the system in order to improve it with their assistance”

(Demming 1986). In the frames of the Quality House metaphor we can say that a manager shall work on improving the three interacting systems. It shall be mentioned that EI systems management and improvement is only possible if the management and the resource allocation is done effectively, and if qualified QM staff is available at the university. At the same time, the high academic quality can only be assured if the whole EI's system functions effectively including management at all levels and the quality of running the auxiliary processes.

The indicator of quality of processes in an EI is the level of assurance that the provided service (academic, research) strictly meets customers demands. Such assurance is usually related to the existence of the Quality System in the EI. Its developing is only possible if all processes are identified and compared to benchmarks existing in the higher education community. This problem is also of big importance for the internationalization of education and for harmonizing the Russian higher education, including the quality criteria, with other systems of the higher education in the frames of the Bologna Declaration. It is needed to attract more internal customers as well as to be more successful on the international market of academic services. One of the key aspects of the signed Declaration is introducing the unified quality assurance mechanisms. Thus, one can suppose that the universities which pioneer the process of developing the Quality Management systems can have competitive advantages in the international market.

The main worldwide trends in Quality Assurance in education can be listed as follows:

1. Developing the unified academic quality criteria and standards in the European countries in the frames of the Bologna process;
2. Developing and harmonizing national systems for accreditation of academic programs;
3. Developing and introducing Quality Management systems based on different quality models including the requirements and recommendations of the international GOST R ISO 9000-2000 standards, the EFQM Model of Excellence and other national models for Quality Management in education.
4. Developing the academic Quality Assurance systems based on Quality Management principles but not directly related to certain models;
5. Moving the focus from the external assessment of the academic process and evaluation of its results according to national licensing and accreditation systems to the internal self-assessment ones based on different models. It provides transfer of responsibility for the quality and its assessment to where it shall belong, i.e. to EIs, and allows to save material resources and time allocated for conducting external assessment. Developing a management system for an EI one should be guided by some Quality System (QS) model to be constructed using benchmarks from EIs of the country. It is also desirable to respect

the main requirements of the standards and guidelines for Quality Assurance in the higher education of European countries.

Fig.3 presents a QS model for an EI. The proposed model meets in general the ENQA Standards and Guidelines as well as the requirements of the process-based Quality Management System used in the GOST R ISO 9000-2000 Standards. The model includes:

- 1) Forming the Quality Strategy, Policy and Goals, i.e. developing the educational goals which detail the EI's Mission as well as social and pedagogical norms of these goals.
- 2) Planning and continuous improvement of the EI's performance, i.e. processes and procedures planning, their support and improving.
- 3) Resource management including human and other resources needed for teaching students, i.e. providing the processes of the EI's life cycle with all kinds of resources: financial, human and information.
- 4) Management of processes and procedures, i.e. management of the basic (teaching, scientific research, life-long education, staff training) and the auxiliary (campus maintenance, staff management) processes.
- 5) Monitoring and control, i.e. assessment and evaluation of indicators and parameters of work processes and analysis of their results, including Student performance assessment; Assessment of the key indicators of the EI's performance; Conducting marketing and sociological research; Assessment and research data processing and analysis; Assessment of academic results quality; Determination of the EI's competitive rank.

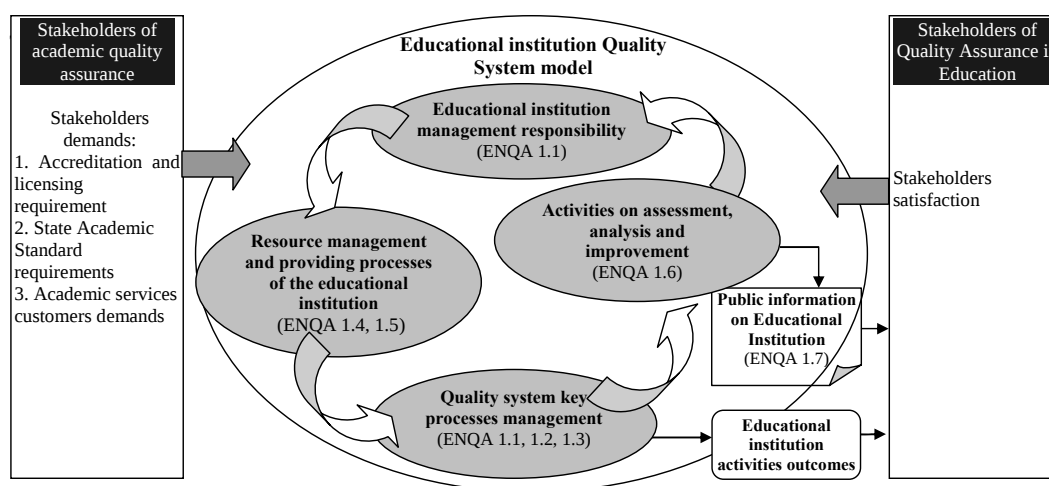


Fig.3. Quality System Model for an EI

The draft set of documents on the sample Quality System model for EIs was developed at St.Petersburg State Electrotechnical University “LETI” in 2006. Research was financed by the

Federal Agency for Education of the Russian Federation. The following documents were developed:

1. EI's Quality Manual
2. Guidelines on introducing the sample Quality System Model at EIs
3. A glossary on the terminology used in the field of EI Quality Management
4. Guidelines on EI self assessment using the Model of Excellence in Quality Management
4. Procedure of external EI Quality System assessment for licensing and state accreditation

The Quality Manual is to be used for developing sample model based Quality Systems. It determines the main requirements to the Quality System and hold a status of recommendations. The document was developed using the ENQA Standards and Guidelines as well as the GOST R ISO 9000-2000 Standards.

The structure of the sample model was developed using the positive experience gained from the Quality System models determined by the ISO 9001:2000 International Standard "Quality Management Systems. Requirements." It simplifies passing the procedure of certifying the Quality System according to this standard. The EI's Quality System model given in fig. 3 is a process approach based one. It shows that the stakeholders interested in quality assurance play an important role when determining the input data for the system. Monitoring of stakeholders satisfaction makes possible to estimate the Quality Assurance system appropriateness. The model embraces all main requirements of the ENQA and the GOST R ISO 9001:2000 standards but does not detail them.

The initial steps to introduce the process oriented approach which is usually used for Quality Management Systems development is determining the key EI's processes and compiling a graphic description or a spreadsheet of processes. The list of processes at a given period is determined based on the current measurements of customer expectations and requirements, Quality Policy and Strategy originated from customer requirements, goals and outcomes outlined in the Quality Policy and Strategy.

The cornerstone of an effective EI's management system is the use of modern goal determination technologies. To set the EI's goals is necessary to determine precisely the present state of the overall management system. For this purpose, a model for improving EI's performance in Quality has been developed. The model's criteria have been harmonized with the EFQM Model criteria. The number of the model's criteria is 9 and the number of sub-criteria and their elements is 60. The model for improving IE's performance in Quality is understood as a set of criteria and elements which characterize the main components of EI's activities from the Quality Management standpoint as well as the description of the "maturity levels" for all elements which jointly determine all EI's processes oriented on achieving the desired results in Quality.

The pilot application of the self-assessment method based on the model for improving the EI's performance in Quality through the Internet technologies has been carried out in the Russia. About 300 Russian universities got instructions and the access code to information materials on the self-assessment method which are placed on the WWW.TQM.SPB.RU website. More than 60 universities took part in the experiment and reported on the self-assessment results. Using the statistical values of the sub-criteria as well as the values of proposed weight co-efficients an integral radar diagram has been drawn based on the data obtained from universities participating in the experiment (fig. 4). The maximal value of each criterion is 10.

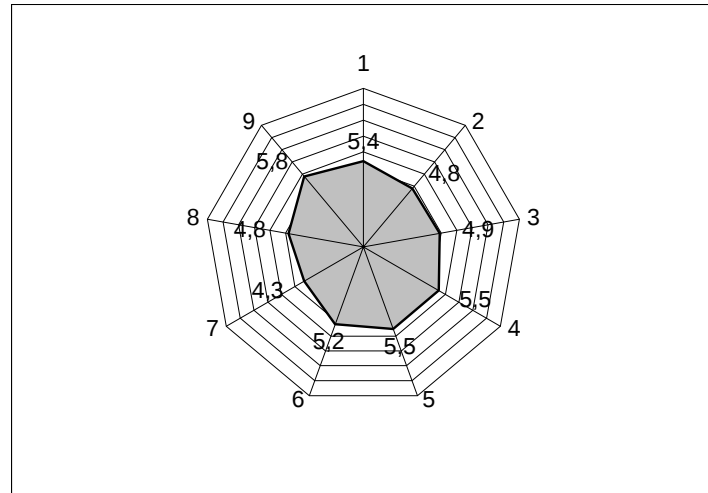


Fig. 4. Integral Radar Diagram for all universities

“Opportunities” group criteria		“Outcomes” group criteria	
1. Leadership of administration	5.4	6. Customers satisfaction	5.2
2. Policy and strategy	4.8	7. Staff satisfaction	4.3
3. Staff management	4.9	8. EI's impact on society	4.8
4. Resources and partners	5.5	9. EI's performance outcomes	5.8
5. Processes management	5.5		

Feedback and opinions expressed by participating universities on the carried out self-assessment gives us the right to state that the proposed method can be used by universities as a tool for improving their main mechanisms of enhancing the managerial, academic and social activities. The task for the future is to analyze and discuss the developed models and criteria.

References

- Deming, W. Edwards (1986) Out of Crisis, Cambridge: MIT Center for Advanced Engineering Study.
- Puzankov, D.V., Oleynik, A.V., Sobolev V.S. and Stepanov, S.A. (2003) Guidelines on the use of GOST R ISO 9000:2000 standards in higher education institutions, St.Petersburg: SPb ETU “LETI”.