

Government of the Republic of Montenegro
Ministry for Economic Development
PROGRAM FOR THE QUALITY

**STRATEGY FOR IMPROVING
THE QUALITY INFRASTRUCTURE
IN
MONTENEGRO**

Podgorica,
April 2007

Government of the Republic of Montenegro

MINISTRY FOR ECONOMIC DEVELOPMENT

PROJECT OBJECTIVE:

***DEVELOPMENT OF THE
STRATEGY FOR IMPROVING THE QUALITY INFRASTRUCTURE
IN MONTENEGRO***

The existing Strategy for Improving the Quality Infrastructure was approved in 2003. The final provisions of the Strategy provide for its amendments and supplements in harmony with the changes that being emerging in the field of the quality infrastructure.

Meanwhile, during 2003, as well as in 2004 and 2005, new ISO 14000:2004, ISO 22000, ISO 18000 and ISO 20000, as well as ISO 27000 series appeared, which related to environmental management system (EMS), food safety management, occupational health and safety management, IT services management and information security management system respectively, which have developed the new approach to the quality as a new paradigm of the management.

International standards have been further developed according to the integration of ISO 9000 into the standards of ISO 14000 series dealing with the environment protection management and they will be further integrated pursuant to ISO 18000 that regulate food and health safety.

In 2006, Montenegro was proclaimed as an independent state recognized at international level. The new state status of Montenegro is reflected significantly in the forms of standardization process arrangement, as well as in the quality processes, metrology and other quality infrastructure institutions.

Montenegro is committed to the approximation and accession processes for joining the EU, which imply harmonization with the European Directives and Standards. Therefore, the organization and work are required to be arranged according to the European rules and instructions.

These relevant influences on the further development of the quality infrastructure are the preconditions to approach to new possible innovations of the quality policy and, based on that, to defining the strategy for improving the quality infrastructure. Such innovated policy and Strategy should encompass:

- 1. innovations of the quality policy and its harmonization with the intentions of international standards regulating the quality and the environment protection, as well as with both other standards for the quality infrastructure and the European Directives, Rules and instructions.*

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2. Based on the quality policy, new goals that are required to define the strategy for improving the quality infrastructure in Montenegro, which will regulate, via the quality infrastructure institutions and a long-term program, the preconditions to :
 - a) ensure development, as well as the implementation of the European and international standards in Montenegro;
 - b) ensure and provide a dynamic developmental movements intended for the quality system in Montenegro, which will foster the intensive implementation of international standards in all fields of social life, and particularly for those ones that are priorities for Montenegro development;
 - c) point out to and give basic guidelines for all aspects of both the quality and the standardization, such as: responsibility, organizational position, training, permanent improvement, integration processes, engagement of employees and residents, reassessment, media presenting and alike;
 - d) provide the harmonized development of all elements of the quality infrastructure.

It is required to form the task force that will present a completed text of the Strategy within three months as of this assignment.

Prof. Dr Milan J. Perović, Director of the Quality Program of the Government of the Republic of Montenegro will be the responsible person for the assignment.

*Podgorica,
November 29, 2006*

Assignment given by:

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Ministry for Economic development

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Starting from the extraordinary importance of the concepts of the quality and environmental management systems, as well as of occupational health and safety, food safety and information security management systems, being formulated under international standards of ISO 9000, ISO 14000, ISO 18000, ISO 22000 and ISO 27000 series, and from the standardization system, metrology system, conformity assessment system – collectively said as the quality infrastructure system - being integrating factors for the global market, new paradigms of management, keys for competitiveness and profitability, bases for business and life philosophy, survival and inclusion in the European and global integrations flows, and a concept that is in the function of development, the Government of the Republic of Montenegro will undertake the required measures and activities to engage all developmental potentials and to create preconditions for mass engagement in the movements to improve the quality infrastructure, while via public announcements of its attitudes to the quality infrastructure policy it is committed to act to.

ATTITUDES TO THE QUALITY INFRASTRUCTURE POLICY IN MONTENEGRO

- 1. The Government of the Republic of Montenegro considers that the quality infrastructure management, as a steering conception that strongly influences the structural and system adjustments of economy and of other society segments to the European aspirations and as that that implies the global quality standard for goods and services, represents a development priority to the Republic.**
- 2. The Government of the Republic of Montenegro believes that the quality infrastructure improvement and adjustments to the European technical regulations and standards contributes to the elimination of technical barriers to the movement of goods and services and, thereby, contributes to the quality of human freedoms as well. The Government of the Republic of Montenegro considers this Program commitment as an important prerequisite for the overall inclusion into the European integration flows.**
- 3. The Government of the Republic of Montenegro considers that the quality infrastructure improvement encourages development, progress and management of the processes of environmental and human health protection. The Government of the Republic of Montenegro will ensure the implementation of this Program commitment by its activities, which obligation has been defined by the Constitution.**
- 4. Arrangement of work and doing business by organizations and particularly those performed by the public administration authorities, which has been harmonized with the requirements under international standards, should be developed as a whole and improved in order to ensure a high level and transparency of the quality of goods and services in the new ambient of Montenegro.**
- 5. Management standards are the generators of changes in the culture of behaviour and work arrangement, as well as the precondition for increasing effectiveness and success of any organization, institution or the public administration, i.e of all factors of economic and social life in general.**

6. The Government of the Republic of Montenegro expresses its commitment to the European integrations via forming and developing the quality infrastructure institutions according to the rules of corresponding European associations.

The Government of the Republic of Montenegro will encourage, within the framework of its competences, the implementation of the said attitudes to the quality infrastructure policy, as well as the strategic commitments that derive from the policy. Business organizations (companies and institutions) that perform public functions shall be obliged to follow these attitudes to the quality infrastructure policy in Montenegro, as well as to introduce them into their respective programs.

Podgorica,
.....2007

Željko Šturanović
Prime Minister

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1. INTRODUCTION

1.1 STRATEGY TARGET

The Strategy is defined here as a series of managing decisions and activities directed towards the future, in order to sketch desirable position of the quality infrastructure system. The quality infrastructure, as a broader notion, implies the system of interdependent and conditioned elements, such as the quality, standardization, metrology, accreditation as well as the management standards (ISO 9000 Quality Management System; ISO 144000 Environmental Management System; ISO 18000 Occupational Health and Safety Management System; 27000 Information Security Management Systems; HACCP/ISO 22000 Food Safety Management System; as well as ISO 17000 Conformity Assessment).

The Strategy for Improving the Quality Infrastructure defines the main directions for the implementation of the **Attitudes to the Quality Infrastructure Policy of Montenegro** (2007). It is a continuation of the efforts of and it replaces the previous 2003 Strategy for Improving the Quality Infrastructure in Montenegro. 2003 Strategy for Improving the Quality Infrastructure in Montenegro is a draft document done by the relevant ministry, other government agencies, public and other companies and institutions pursuant to which they acted and to which they created amendments and supplements. Therefore and in addition to its strategic commitments and directions, it defined also the methods to implement them.

The quality is probably the most important phenomenon of the era and it is obviously the most important project that has been commenced at the beginning of the 21st century. It has been implemented in more than 150 countries as a global process and a dominant factor of competition. Under our circumstances, the quality has significant influence on the structural adjustment of economy and of social life in general to the European integration movements. The change of standards, QMS, i.e., quality management system (ISO 9000 standards), EMS, i.e. environmental management system (ISO 14000 standards) and the standards for occupational health and safety management system OHS&S (ISO 18000), as well as the standards for conformity assessment in relation to the requirements prescribed under the standards and their mutual recognition (ISO 17000) are the basis for the **New Approach to Management**, increase in the efficacy and competitiveness and decrease in obstacles in exchanging goods and services with other countries. Quality systems in all countries are improved under the auspice or "special attention" of the state.

For twenty years, economies of the developed European countries have been continuously changing along with searching for new paths to make business operations more effective. There are four transformation waves that can be observed clearly, and they are: (1) the one under the influence of energy crisis from the early 70s; (2) the one under the influence of Japanese competition – from the late 70s; (3) privatization of state owned companies (Tatcherism) – from the early 80s; (4) quality improvements - from the early 90s. All the said transformation processes emerged one after the other, and all of them were initiated and supported by corresponding state measures. We are facing the problem that is reflected in the fact all four transformation processes are underway at the same time.

The processes of the quality infrastructure improvement, which were typical only of industrial companies initially, have encompassed all economic fields nowadays, as well as the field of health protection, education, banking, insurance and public administration.

More they have been enlarged more the country's role is diverse. Anyway, the country's role is defined under the **Attitudes to the Quality Infrastructure Improvement** and under the **Strategy for Improving the Quality Infrastructure**.

By pursuing these trends, the Government of Montenegro passed, in 1993, the **Government Program for Integral Quality System Development that reflected the commitments and efforts to develop the quality, both as a transformation process and as an essential factor therefore, intended for Montenegrin companies and institutions both as a new work style and method and as a new approach to management**.

In 1994, the Government approved the **Attitudes to the Quality Policy** and the **Strategy for Introducing the Quality Management System in Montenegro**. Those two documents were updated and supplemented by the 1999 Strategy, and the updated Strategy was approved again in 2003. Based on the Attitudes to the Quality Policy, the Strategy defined the directions and methods for its implementation, as well as competencies, responsibilities, long- and medium-term measures and obligations stemming therefrom and the motions for upgrading and amending relevant legislation and other measures that would ensure the active attitudes of both the highest power ranks in the Republic and all other actors engaged in economy and out-of-economy life to the quality infrastructure.

The EU countries have eliminated administrative, customs and technical barriers from their mutual relationships, by adopting international management standards inter alia. Thereby, the EU countries were placed to the advantageous position in their mutual relationships, whereas the countries that want to trade with them have to introduce the European standards primarily and then the international ones in order to overcome the technical and administrative barriers.

1.2 The first starting point for defining the Strategy Changes, awareness and integration processes

Constant changes in all life areas are among the basic characteristics of the present time. The changes are precondition for survival in and adjustment to the integration movements and they are the major development features. The changes ask for abandoning the stiff organizational structures and establishment of flexible systems that will be constantly changed as well. Those permanent changes and the quality system improvement go head to head and they long for the knowledge about the quality, technology, and beneficiaries thereof and alike. Since everybody participates therein, also enlargement of knowledge should be popularized. Therefore, it is necessary to know that the quality improvements are not minor changes. They are endless processes that are underway at all levels of organization (ISO 9004).

The awareness of constant changes and of the needs to have permanent training and professional advancements relevant therefore, and the awareness of the requisite accommodation of the needs of and demands by purchasers and users of goods, as well as the requests and needs of

stakeholders, reflect the basic standpoint for defining strategic directions of the quality improvement.

The integration processes in Europe have been entrenched in the free movement of goods and services, free flow of capital and free movement of persons, and they compose the grounds for defining the quality infrastructure policy and strategy. At the same time, it is started from the precondition that each country that is involved in the accession process – and Montenegro as well – must provide the required preconditions via transposition of the EU directives and the appertaining standards, as well as via the management standards.

1.3 The second starting point for defining the Strategy International standards

Contemporary quality concept was applied in Japan after the Second World War, so the country is the leader in the quality area now – which is the key of its business success within the global market. The USA have been shocked by the Japanese conquest of the market by the products of high quality and low prices – which is a paradox as compared to the traditional understanding of price-quality relationship – and they defined their Strategy in the early 80s. Europe responded thereto by launching Europe '92 Project that provided the application of the international standards under ISO 9000 series. The application thereof facilitated elimination of administrative, customs and technical barriers among the EU member countries and defined, at the same time, the preconditions for trade with the EU non-member countries.

Management standards have been created for years. They were shaped in the form of ISO 9000 series not earlier than between 1987 and 1991. The Federal Bureau of Standardization translated their original form and contents, as well as published them, between 1991 and 1996. The standards under ISO 9000 series define the requirements and preconditions for the quality system designing and implementing.

Those standards have included also ISO 10000 series, defining laboratories, human factors and quality, as well as legislative and economic support to the standards. Thereafter, the standards under ISO 14000 series, defining environmental management, and ISO 18000 series, defining occupational health and safety management and the standards under ISO 22000 series, dealing with food safety, which regulate HACCP, have been included, as well as ISO 17000 series and ISO 19000 series (Figure #1) that govern conformity assessment and assessment systems in general. The standards under ISO 9000 series experienced, after their revision in 1994, a significant transformation into the form of their new 2000 release - when they were promoted as a new paradigm to the management under QMS-ISO 9000:2000.

Management standards hiding behind the notion of “product” imply the generic products that include hardware and software materials and services. According to these standards, a company or an institution should accommodate the needs, desires, requirements and expectations expressed by consumers. A product should be harmonized with the standards in force and with the legal requirements expressed by the society, and they should be available at competitive prices that ensure profit. This is reached in such manner that the factors that influence the quality are kept

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under control in order to make the decrease, elimination and, what is most important, prevention of any shortage emergence.

The highest level the quality system is longing to reach - which is attainable via the application of management standards, i.e. the Quality of Man - can actually be reached step by step, starting from the existing situation and by going through the quality control, the level of providing the quality, the quality management and the quality management system, and thereafter by integrating it into all other management systems.

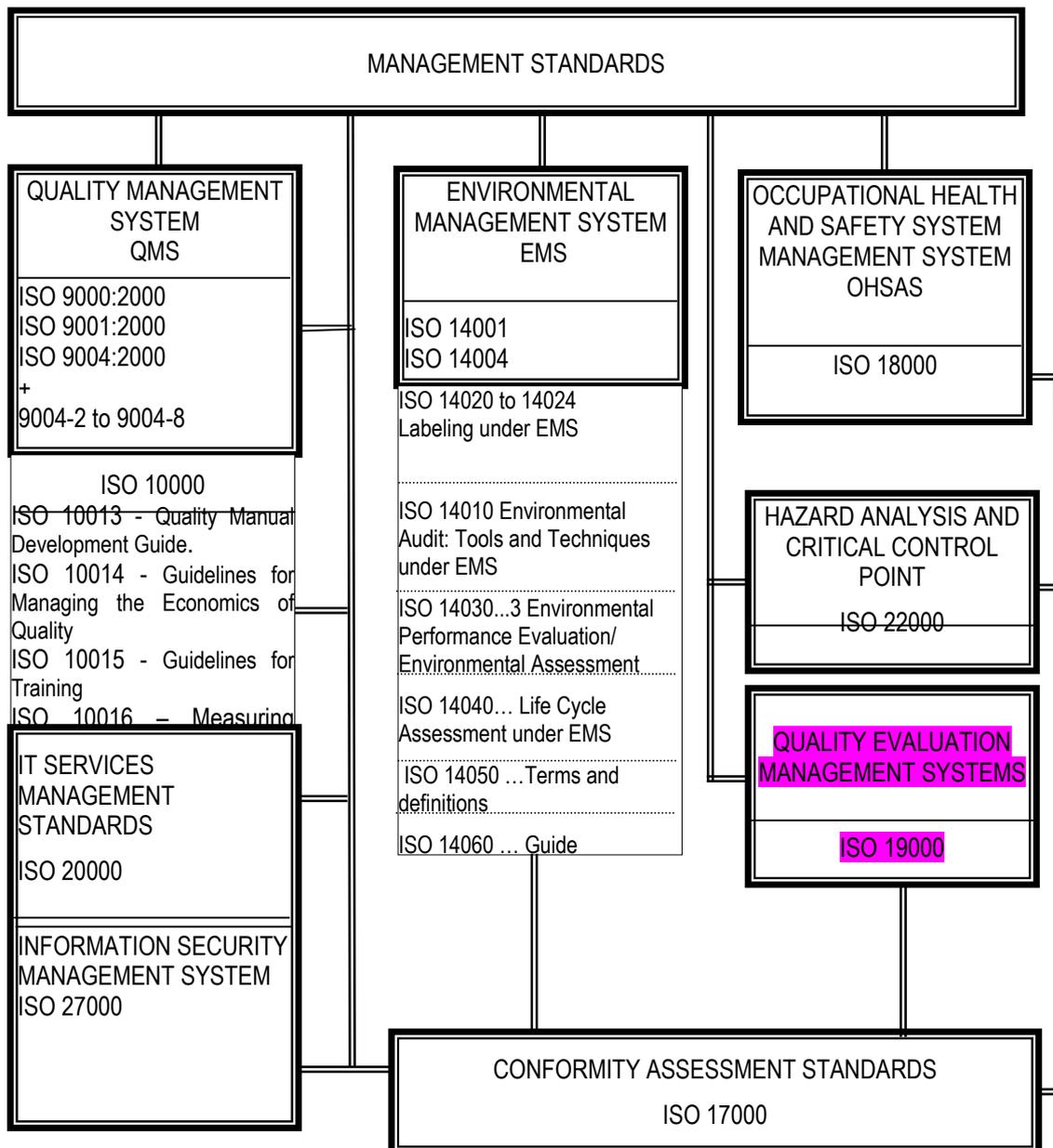


Figure – Management Standards Structure

The implementation of management system is a gradual process from its bottom to the top levels, and it goes on in the organized manner in both companies and the whole country. There are no isolated islands of the quality. It is as hard to maintain the quality that does not guarantee the overall quality as survive as healthy in the midst of disordered surroundings. Therefore, the coordinated activities by the state are required for establishing the quality infrastructure.

The holder of the activities for defining the quality standards in Montenegro has not been established yet, but it has been anticipated to appoint the Institute for Standardization therefore.

1.4 The third starting point for defining the Strategy The European Vision of the Quality

The European Vision of the Quality – Road Forward was published in 2000, which is to be reached through national policy and the quality goals. The European vision relies on three main guidelines (Figure #2):

- 1) **diversity** as the major advantage of the European competitiveness, by which freedoms of the spirits of various surroundings and different groups and nations are promoted, and as the source of strength and individual approaches to the creativity and innovations.
- 2) the **European values as the new “European Religion”**, which encompasses, gathers and enlarges and integrates them at the level of TQM/Excellence values; the linkage between the European values and the business organizations on the products of high technology (Airbus, Ariana-Espace, GSM standards development, TGV and alike). That is how the quality made in Europe is promoted;
- 3) **“Together to win”**, the new culture of the European countries, which promotes the new work methods for the purpose of joint ventures and partnership enlargement based on the development of confidence and competition as a locomotive. That implies greater extent of the inclusion of employees, more direct and increasing involvement of citizens and more dynamic partnerships.

The European vision of the quality defines three basic trends, which should be the signpost of national policies:

- Trend #1 – **from big batch to uniqueness;**
- Trend #2 – **economy globalization;**
- Trend #3 – **public sector quality**

The basic support to the European vision of the quality may be observed from the three points:

- *Practical application of the standards, techniques, technologies, knowledge and learning;*
- *The attitudes of managements to the quality;*
- *The application of the contemporary method in development processes, provision and promotion of business, information system and the quality.*

The European vision observes the quality as a relationship among the factors such as:

- *purchaser – supplier: economic and commercial quality;*
- *organization (company) – surroundings: organization quality;*
- *citizen – public administration: administration quality.*

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Economic and commercial quality, as a conception, describes the relationships between users and producers.

Producers should reach the quality demanded by consumers, whereas consumers demand what they want. Producers learn permanently from the demands expressed by consumers, whereas they apply planning and designing methods, as well as engineering process and post-process procedures to satisfy the demands.

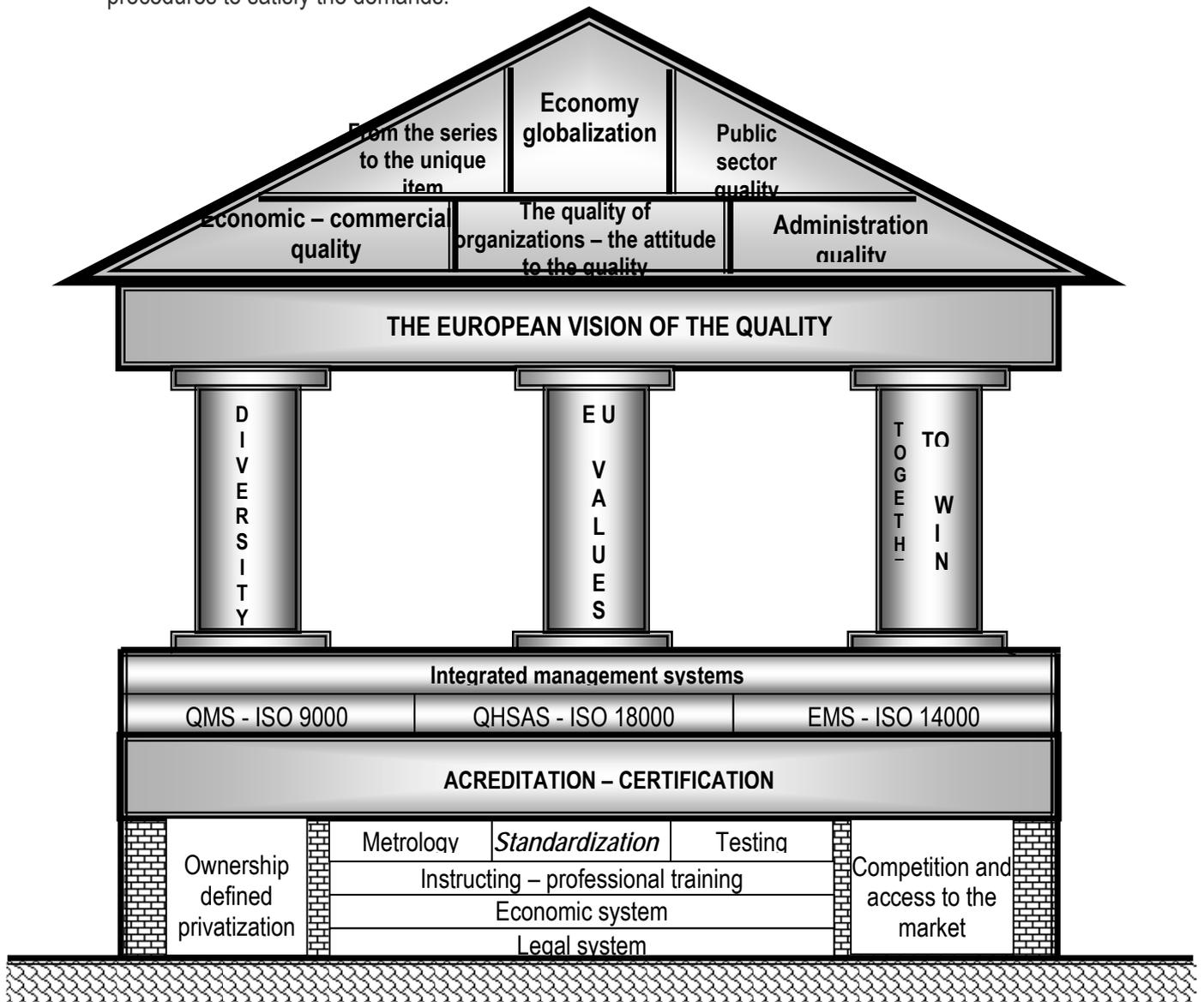


Figure #2. The European vision of the quality on the footing of integrated management system

The Quality of organizations (companies) defines the relationship between organization and environment, which implies relations starting from the conception, designing, production and use to products recycling, whereas with respect to all stakeholders (*surroundings, consumers, partners,*

shareholders, employees). How to design an organization in order to make all participants in such chain to be familiar with the quality and to harmonize what they have learned?

ISO 9000 quality standards, the European Award for Quality and TQM approaches are mainly intended for the quality of organizational relations. Contemporary conception of organizational structuring involves employees, to a significant extent, in decision making along with simultaneous diminishing in hierarchy rigidity.

Administration quality: Under the European Vision, the notion of administration implies the broadest aspect of power that is composed of all human resources that perform public functions, politicians, MPs, judges and persons involved in the executive power.

The role of the power in defining the quality is obvious through two major fields:

- *firstly - as the obligation to define the minimum requirements relating to health, environment and consumers (buyers) protection;*
- *secondly - public administration should provide the necessary infrastructure network for economic growth.*

The Vision implies that where the administration regulates relationships via laws and rules significant attention should be paid not to disrupt attitudes to citizens and not to encourage negative characteristics of individuals but, on the contrary, to encourage positive tendencies (e.g. export, production, market enlargement). Administration, either local or public one, should pursue the contemporary methods and tools for assessing and defining the future status, as well as the respect for international and European standards, guidelines and directives.

1.5 The fourth standpoint for defining the Strategy QMS principles, new paradigm of management

This standpoint basically implies the shift from the existing status of non-effectiveness to the effectiveness and the efficient status that result from QMS. Economic and noneconomic ambient of Montenegro is characteristic of the obsolete and stiff organization without documented roots. The quality management system, on the contrary, relies on the modern flexible organization accompanied by documented roots. The relationship between the existing status of organizations and the principles of QMS is given in the Table #1.

That is the organization adequate to production and service activities, as well as to small and big organizations. The organization based in the principles under the QMS is eligible to establish institutions, associations and public administration. This management system has survived its being subjected to several decade long probation period involving all forms of organization (big, small, production and service oriented ones, and alike) prior to proclaiming it as a standard. This global knowledge (of the standard), upon putting it into operation, should be used so as to make organizations improved in the easiest and best manner for doing their businesses.

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The principles of QMS, by their efficiency, synergic and steadfast activities, improve all elements of doing business within an organization.

The relationship between the existing status and the principles of QMS is given in Table #1.

Table #1.

CHARACTERISTICS	
The existing status of organization	PRINCIPLES of the Quality management System (QMS)
1. Production based approach. Insufficient orientation to the beneficiaries	1. Orientation to the beneficiaries: Organizations depend on their beneficiaries. They should understand their current and further needs.
2. Autocratic management – rigid hierarchy	2. Leadership – leaders and successors in transferring the knowledge: Leaders establish the unity of goals and activities for organization management
3. Engagement of employees as of implementations/inferiors	3. Engagement of employees – team work : Employees at all levels make the essence of organization, and their full engagement enables the use of capacities for the wellbeing of organization.
4. Functional approach Restrictions and bureaucratic barriers	4. Process approach: A desired result is more effectively reached if the activities and resources management is performed as a process
5. Non-systematic mechanical approach	5. Systematic approach: Both interdependence of elements and interdependence of processes contribute to the effective and efficient organization
6. Insufficient improvements	6. Permanent improvements: Permanent goal of organization is the improvement of its performances.
7. Experience and intuition based decision making	7. Facts based decision making: Effective decisions are based on data and information analyses. "What can be evidenced, it is true."
8. Purchase-sale relationships with suppliers	8. Partnership development: Organization and its suppliers develop partnerships to their mutual satisfaction

The quality management system (QMS) has its mission to develop, in economic and noneconomic organizations (companies and institutions), so called democratic ambient of confidence and partnership at all levels, and particularly between the beneficiaries and suppliers of goods and services.

The quality management system is a mass process that long for the mass participation of employees and citizens, and such mass participation requires the mass training.

The QMS is the management based on permanent improvements, which is oriented to the beneficiaries, and it represents, as per measurable goals and tasks, the very essence of the new system of management.

*1.6. The fifth standing point for defining the Strategy
The quality policy and the quality goals*

Starting from the extraordinary importance of the concepts of the quality and environmental management systems, as well as of occupational health and safety, food safety and information security management systems, being formulated under international standards of ISO 9000, ISO 14000, ISO 18000, ISO 22000 and ISO 27000 series, and from the standardization system, metrology system, conformity assessment system – collectively said as the quality infrastructure system - being integrating factors for the global market, new paradigms of management, keys for competitiveness and profitability, bases for business and life philosophy, survival and inclusion in the European and global integrations flows, and a concept that is in the function of development, the Government of the Republic of Montenegro will undertake the required measures and activities to engage all developmental potentials and to create preconditions for mass engagement in the movements to improve the quality infrastructure, while via public announcements of its attitudes to the quality infrastructure policy it is committed to act to.

**ATTITUDES TO
THE QUALITY INFRASTRUCTURE POLICY IN MONTENEGRO**

- 1. The Government of the Republic of Montenegro considers that the quality infrastructure management, as a steering conception that strongly influences the structural and system adjustments of economy and of other society segments to the European aspirations and as that that implies the global quality standard for goods and services, represents a development priority to the Republic.**
- 2. The Government of the Republic of Montenegro believes that the quality infrastructure improvement and adjustments to the European technical regulations and standards contributes to the elimination of technical barriers to the movement of goods and services and, thereby, it contributes to the quality of human freedoms as well. The Government of the Republic of Montenegro considers this Program commitment as an important prerequisite for the overall inclusion into the European integration flows.**
- 3. The Government of the Republic of Montenegro considers that the quality infrastructure improvement encourages development, progress and management of the processes of environmental and human health**

protection. The Government of the Republic of Montenegro will ensure the implementation of this Program commitment by its activities, which obligation has been defined by the Constitution.

4. Arrangement of work and doing business by organizations, and particularly the ones performed by the public administration authorities, which has been harmonized with the requirements under international standards, should be developed as a whole and improved in order to ensure a high level and transparency of the quality of goods and services in the new ambient of Montenegro.
5. Management standards are the generators of changes in the culture of behaviour and work arrangement, as well as the precondition for increasing effectiveness and success of any organization, institution or the public administration, i.e of all factors of economic and social life in general.
6. The Government of the Republic of Montenegro expresses its commitment to the European integrations via forming and developing the quality infrastructure institutions according to the rules of corresponding European associations.

The Government of the Republic of Montenegro will encourage, within the framework of its competences, the implementation of the said attitudes to the quality infrastructure policy, as well as the strategic commitments that derive from the policy. Business organizations (companies and institutions) that perform public functions shall be obliged to pursue these attitudes to the quality infrastructure policy in Montenegro, as well as to introduce them into their respective programs.

General goals result from such a conception of the quality infrastructure policy, and the measurable ones result from the general goals as well.

The general goals of the quality infrastructure improvement are as follows:

- to develop the quality infrastructure (legislative framework and institutions) that will ensure the implementation of a contemporary conception of management in economic and public administration sectors;
- to develop the quality infrastructure that will ensure and accelerate the integration of Montenegro into the European flows, and
- to develop the quality infrastructure that will diminish a possibility of emergence of bad quality and hazardous products and services, injuries at work and accidents that endanger the environment and health.

These three general goals have been elaborated into separate measurable goals.

2. STRATEGIC DIRECTIONS OF THE QUALITY INFRASTRUCTURE IMPROVEMENT IN MONTENEGRO

BASIC GOALS AND STRATEGIC DIRECTIONS OF IMPROVING THE QUALITY INFRASTRUCTURE IN MONTENEGRO

The Government of the Republic of Montenegro approved the Attitudes to the QUALITY INFRASTRUCTURE POLICY of Montenegro and, thereby, it is clearly committed to the quality infrastructure as to a development priority of the Republic. The development that has been reached so far and the implementation of the Strategy by means of programs, make a favorable ambient for the quality infrastructure improvement. Montenegro and its not numerous population and a few business organizations, and a number of organizations mainly oriented to international markets (the Railways of Montenegro Company, the Air Company, airports, sea ports, as well as companies involved in marine, telecommunication and electric power related activities), as well as its huge commitment to services, are all favorable ambient for the implementation of the Quality Infrastructure Policy. The link between Montenegro and the world is and will be conditioned in the future by establishing the management standards.

Under the Agenda of Political Reforms of the Government of Montenegro and under the general goals for existence and development of the Republic, three important goals are derived:

- 1) contemporary conception of management, for the purpose of reaching the increased effectiveness and efficacy of organizations, economy and the Republic on the whole;*
- 2) inclusion of Montenegro in the European integration processes; and*
- 3) effective environmental management.*

The quality infrastructure management is a strategic direction that is in the function of reaching these three basic strategic commitments. The analysis of quality infrastructure of the Republic (attached) and the analysis of the samples of such status and experiences learned from developed countries indicate the significance of identifying the basic strategic directions for reaching the Attitudes to the Quality Infrastructure Policy in Montenegro.

The Strategy defines the basic directions intended for the quality infrastructure development and it indicates the methods to implement them. The basic strategic directions for the quality infrastructure improvement in Montenegro are based on the attitudes to the quality policy and on the major goal that is generated by such attitudes, which goal includes three basic components:

- to develop the quality infrastructure (legislative framework and institutions) that will enable the implementation of a contemporary conception of management in economic and public administration sectors;
- to develop the quality infrastructure that will ensure and accelerate the integration of Montenegro into the European flows, and
- to develop the quality infrastructure that will diminish a possibility of bad quality and hazardous products and services emergence, as well as injuries at work and accidents that endanger the environment.

Those defined goals imply the establishment of national institutions for standardization, and those for metrology and accreditation, that will conclude agreements on recognition and acceptance thereof with the European standardization bodies. The said institutions make the foundation for the quality infrastructure that is grounded in willingness, integrations, coordination, decentralization – distribution and application of the European standards as national ones and coexistence of them with the other standardization systems.

The basic factors, which are characteristic of identifying the goals for the quality infrastructure and on which strategic directions for their implementation are positioned, are the following ones stemming from:

- 1) *the international, regional and national standards, directives, instructions and guidelines;*
- 2) *knowledge and experience;*
- 3) *their mass and comprehensive characters;*
- 4) *management practices;*
- 5) *the quality of life;*
- 6) *the purchaser-organization-supplier relationship (here to emphasize that the notion of 'organization' implies a business company or an organization that produces good and delivers services).*

The above listed factors (either several or all of them) make strategic directions for the quality infrastructure improvement in a synergic way.

2.1 Strategic directions for the standardization development in Montenegro

The standardization system in Montenegro is a substantial factor of developments and improvements in the quality infrastructure. At the same time, it is considered as a precondition of each and any quality and as a competing requirement. Standardization represents a link between producers and consumers and a precondition for the involvement in the European integration activities. The harmonization of the national legislation with the one of the EU is a prerequisite to take part in those activities, since technical barriers to trade are eliminated thereby.

The basic approaches of the standardization system development in Montenegro are as follows:

- 1) to develop the standardization system in harmony with the requirements and recommendations by international and European organizations for standardization, which means the following:
 - *standardization should be a process entrenched in the consensus of market actors and not something dictated by the power, and its implementation should be voluntary;*
 - *a standardization organization should be an association of stakeholders, and its bodies should be independent from the Government, as well as unbiased and competent;*
 - *the national standards should be consistent with the international ones, i.e. with the EU standards;*
 - *the European and international standards should be transposed and adopted as the national ones and those national standards that are in violation of the international*

ones should be annulled. In such manner, the European standards should be accepted as voluntary national standards;

- the Code of Good Practice should be in force;

- 2) The system of standardization should be developed, since it represents the grounds for conformity assessment. **The conformity assessment** should be conducted in harmony with international standards under ISO 9000 series and ISO 17000 series, as well as with the recognized international rules and guidelines of ISO/ICASCO, i.e. in harmony with the corresponding regional programs.
- 3) The system of standardization should be developed as a method to protect general interests via technical regulations on the protection standards, by prescribing the mandatory characteristic for goods and services in order to make possible both their marketing and their free movement.
- 4) The system of standardization should develop the mass application of the system, which means spreading of cognition that the standards are required in all areas of economy and noneconomy lives in the Republic.
- 5) The system of standardization should be a generator for applying the European standards and technical regulations included by the EU directives relating to the food and pharmacy products, motor vehicles and road, maritime and railroad transportation means, telecommunications, air transportation, energy systems and other fields, as well as by the EU New Approach Directives regulating the safety of products in use.

For the purpose of creating preconditions for the successful implementation of the New Approach Directives, the National Standardization Body is required to commence the process of transposing the harmonized EN Standards to the national ones. Regardless of its voluntary character, the application of these standards make grounds for the fulfillment of substantial requirements prescribed under the Directives and, at the same time, it represents the simplest and fastest method for designing and creating countless products. Until reaching the full membership of CEN/CENELEC (the European Organization for Standards), it is required to take over 80% of the EN standards and develop a plan for transposing the remainder of them. The Action Plan will define the obligation to transpose such 80% of the European standards and which of them, as per their field, will be transposed.

For the purpose of putting into operation the said approach (harmonizing with international and European standards) and expanding the application of such standards, as well as for improving the level of information in relation to the national, European (regional) and international standards and directives and guidelines, it is required to introduce the Law on Standardization and to establish the Institute for Standardization. The Institute for Standardization of Montenegro plays the following roles:

- approves the national standards;
- ensures a broad circle of beneficiaries in Montenegro the access to standards, information, directives, international and regional guidelines and rules;
- joining the ISO-NET;
- delivers information of the standards and conformity assessment relating thereto (pursuant to the WTO/TBT Agreement on Technical Barriers to Trade).

The Institute for Standardization, which was established upon the Decision taken by the Government of the Republic of Montenegro (in March 2007), should function under the rules and

on the model of the counterpart institutions of Europe, meaning that it should be independent of the Government, unbiased and competent in its organizational status with regard to an association of economy or noneconomy, ministries and local administration, whereas subjected to the ‘special attention’ of the state. Such Institute should be recognized by CEN (European Committee for Standards) and CENELEC (European Committee for Electrotechnical Standardization) and IEC (International Electrotechnical Commission).

The system of standardization is a basis for technical, technology and processes development from the point of view of the application of technical standards and, particularly, of the quality standards to all its segments, as well as from the point of view of the application of organizational standards, i.e. the management standards.

The basic goal is to make the Institute for Standardization of Montenegro an associate member firstly and a full member of the European institutions for standardization thereafter and by 2010.

2.2 Strategic directions of metrology development in Montenegro

Metrology is the science of measurement and it is very important for the development of each state. The EU metrology is reflected in three major categories of different levels of complexity and accuracy each, i.e. in scientific, industrial and legal metrology. The state functions within the field of legal metrology in Montenegro have been performed by the Bureau of Metrology that was established on September 29, 2006 and that should develop itself into the National Metrology Institute. By establishing this Bureau of Metrology, Montenegro has started, in this first year, constituting and cherishing the several-century long tradition of the state. That requires all resources to be employed in order to make such longevity functions, while starting from the space, equipment and human resources. There are no provisional solutions in this field. Everything must be well organized – such space, equipment and human resources. That implies provision of funds for establishing metrology laboratories and organizing trainings for metrology experts. Legal metrology must be constantly improved, and it is very important to provide conditions for industrial and scientific metrology as well.

Strategic directions of metrology development in Montenegro are as follows:

- passing regulations pursuant to the Law on Metrology (“Official Gazette of RM”, No. 44/05);
- implementation of the EU Directives governing metrology (Ordinance on Non-Automatic Weighing Instruments (Directive 90/384/EC), Ordinance on Measuring Instruments (Directive 2004/22), Ordinance on Prepackages and Bottles Used as Measuring Containers (Directives 76/211/EEC, 75/106/EEC, 80/232/EEC), and alike);
- establishing metrology laboratories of the Bureau of Metrology, which implies the construction of the new building purposeful for metrology activities implementation, as well as providing adequate metrology equipment. Metrology laboratories of the Bureau of Metrology must be arranged so as to ensure carrying out approval of measuring instrument types, verification (testing and marking) of measuring instruments, taking and testing samples of reference materials, inspecting and analyzing prepackaged products and reviewing national measurement standards and alike. During the first stage, a

laboratory for mass and a laboratory for electrical quantities should be established, as well as the preconditions for inspecting and analyzing the prepackaged products. The second stage must encompass establishment of a laboratory for capacity, a lab for length, a lab for chemical quantities and a lab for precious metals. In addition to the establishment of metrology laboratories in the Bureau, it is required to establish, within the framework of the spread metrology system, metrology laboratories for some other quantities and to accommodate them in the institutions that have adequate equipment and human resources. Upon a detailed examination of the established metrology infrastructure, the reached results and needs of the region, the third stage may include also forming other metrology laboratories;

- Establishing cooperation with the national metrology institutions that are active both in the neighboring regional countries and in those of the European Union;
- Participation in international projects and in the EU funded projects relating to providing equipment, human resources training, metrology laboratories establishment;
- Professional training of the employed with the Bureau (trainings, human resources exchange, engagement of metrology experts with the metrology related education and alike);
- Seminars, courses and similar forms of training in metrology related fields, for those persons whose activities are linked to metrology;
- Researches relating to prepackaged products;
- Researches with the aim of improving measurement standards;
- Developing, preserving and maintaining (prime) measurement standards, and ensuring their traceability to international levels;
- Establishing cooperation with the University of Montenegro with the aim to develop scientific metrology;
- Ensuring necessary prerequisites for acquiring the status of an associated member of international organizations such as WELMEC (European Cooperation in Legal Metrology (originally Western European Legal Metrology Cooperation)) and OIML (international Organization of Legal Metrology). The desirable deadline for acquiring the said status has been extended to 2009;
- Joining the EUROMET / EURAMET – Forum for Measurement Standards Cooperation, i.e. the Regional Metrology Organization for Europe within the framework of CIPM MRA (CIPM Mutual Recognition Arrangement), which implies ensuring certain preconditions, such as: participation of metrology laboratories of the Bureau in the key and additional comparisons and establishing the quality system, and alike. The desired deadline for acquiring the full membership is 2012.

2.3 Strategic directions for accreditation development in Montenegro

The objective confirmation relating to the conformity of products and services with the specified requirements is given by the Conformity Assessment Body (CAB). Such CABs carry out the activities that involve calibration, certification, testing and analyzing.

It is important that customers, regulation makers and the public are familiar with the competencies of such CABs. Therefore, there is an increasing demand for unbiased testing of their competencies. Such testing ensures the existence of authorized accreditation

bodies that are unbiased as compared to the CABs and their clients, and which work is non-profit based.

The accreditation system intended for conformity assessment that is delivered by CABs should provide the confidence on the part of consumers and regulation makers. Such system should facilitate the trade out of the state borders if it was recognized by trade authorities and organizations.

The system for facilitating the "cross-border" trade can function if accreditation bodies and TOU work according globally recognized criteria and in the equivalent manner, as well as if they take into consideration all stakeholders.

The basic goal of the national Accreditation Body of Montenegro is to become a full member of EA (European Accreditation Cooperation) by 2012. Such status is the starting point for mutual recognition of testing, analyzing and certifying at the level of the EU.

The goal is reached through establishing the National Accreditation Body of Montenegro (which was established in March 2007), which should:

- **develop documentation grounds for functioning of the National Accreditation Body of Montenegro, in harmony with the requirements under ISO 17011 standard;**
- **ensure or conduct trainings for assessors for laboratory accreditation, control organizations and certification bodies, paying full attention to code marks that are basis for a competent assessment in the fields in which accreditation organizations are interested;**
- **ensure or conduct trainings for experts, which should guarantee the required level of technical competence of such expertise and which competencies cannot be vested in assessors dealing with certain fields;**
- **establish an adequate information system that can support all activities required for the functioning of the National Accreditation Body of Montenegro;**

In the beginning, international cooperation should be intensified in such manner that the National Accreditation Body of Montenegro reports on the EA and link itself to the neighboring regional institutions. That is when documentation grounds should be established, pursuant to ISO 17011 standards, as a base for the functioning of the National Accreditation Body of Montenegro in the spirit of the quality system oriented towards accreditation. The Accreditation Body must define its Accreditation Rules as soon as it has commenced its activities, which Rules should assist the organizations in relation to cognition of its rights and obligations

A very significant task of the national Accreditation Body of Montenegro is the promotion of the accreditation system of Montenegro and its linking to the public administration.

The Accreditation Body should have 45 accreditation organizations by 2012, the structure of which would (approximately) be as follows:

- 30 accreditation laboratories for testing calibrations,
- 10 accreditation control organizations,
- 5 accredited certification bodies.

The National Accreditation Body of Montenegro, based on the experience gained in testing and controlling by 45 accreditation organizations, while with clear participation of such organizations in inter-laboratory testing and verified unbiased, neutral and independent work, would pass the peer assessment and provide, thereby, the automatic full membership of EA.

2.4 Accreditation Bodies Network in the function of the quality infrastructure improvement

The accredited laboratories are the laboratories for testing and/or calibration, which have been given such accreditation. Accreditation recognizes them officially as the laboratories for testing and/or calibration that are competent to be allowed to do specific testing (ISO/IEC 17025).

Accreditation Laboratories Network represents the composition of competent laboratories for testing and/or calibration, which are linked together due to supplemental and sub-contracting activities in order to be able to give relevant findings (i.e. reports) to a competent organization and/or inspection service for the purpose of issuing attestations and certificates. At the same time, the starting points are reflected in the rules (from the EU New Approach and the standards of ISO EN) that laboratories should not issue any certificate of the conformity with the standards and regulations, but that they do that for the account of control organizations, inspection services and institutes, i.e. the authorized bodies.

The strategic direction of the testing laboratories network development implies that:

- laboratories should be in the function of undisturbed marketing at national and international levels, i.e. they should eliminate technical barriers;
- laboratories should be accredited according to the rules prescribed under international standards (EN 45000, i.e. ISO 17025 and the standards of ISO 15189) and the guidelines under ISO/CASCO.

Laboratories Network in Montenegro should provide reliable findings for products from the EU list that are marketed, such as food products, pharmaceutical products, chemical products, low voltage devices, medical equipment, personal protective equipment, building materials, recreation equipment, pressured containers, elevators and vehicles, as well as an adequate monitoring of such products on the market (both their entrance into Montenegro, their marketing within the territory of the Republic and their export from Montenegro), which monitoring would be familiar to the international marketing activities, and the testing in the function of environmental management.

International recognition is reached via two linked approaches, i.e. via the recognition of both laboratories and the accreditation body.

All the laboratories that have been accredited are allowed to join the Montenegro Laboratories Network that is a segment of the European Laboratories Network. Such laboratories may be all the laboratories that function according to the rules under international (ISO) and European (EN) standards, either they are public, private or the ones within the organizational structure of a company.

In absence of competent laboratories in Montenegro, it is allowed to benefit from the services delivered by competent laboratories in neighboring countries.

It should be insisted that all laboratories being developed under the single Network of Montenegro are to be consistent with the European rules for accreditation and, particularly, that ordinary and extraordinary monitoring of accreditation laboratories is to be conducted. It is important for Montenegro, in the sense of the quality infrastructure improvement, to train and accredit laboratories that will be authorized by the relevant ministries.

Deadlines: Successive accreditation of all laboratories in Montenegro.

2.5. The New Approach Directives and CE label in the function of the quality system infrastructure improvement

The free movement of goods, as one of the basic principles on which the European Union relies, is reached by eliminating the unnecessary trade barriers that may be either tariff or technical ones. The technical barriers to trade are eliminated by applying principles of mutual recognition and notification (in inconsistent areas) and harmonizing “the technical” legislation via the Old Approach Directives and the New Approach Directive. The Old Approach Directive impose, in the traditional manner, the mandatory requirements for the specific groups of products through detailed technical rules and, due to that, they cannot monitor technical and technological development. On the other hand, the New Approach Directives covers significantly bigger batches of products, defining at the same time only those requirements that relate to their security and safety (“substantial requirements”). By applying nonbinding harmonized standards that are regulated under those Directives and to which concrete technical solutions are given, the precondition for the fulfillment of substantial requirements is created. In such manner, the following goals are achieved:

- the role of legislation is reduced to minimum (only substantial requirements are being prescribed),
- a huge number of products can be encompassed by one of the New Approach Directives,
- the flexibility and innovativeness is ensured via the harmonized standards that monitor technical / technological development of the society,
- the free movement of goods is ensured, without diminishing the level of product security.

The New Approach Directives entails also the needs for new understanding, obligations and responsibilities. Primarily for the purpose of the security of citizens and then for the purpose of eliminating barriers to trade, it is required to make the state to harmonize its national technical legislation by transposing the New Approach Directive. At the same time, all national legislation that is in violation of the New Approach Directives should be annulled. To the end of implementing such legislation, the state must arrange an effective and efficient system of monitoring the market in order to eliminate all unsafe product from the market place (the products that are not in conformity with the substantial requirements provided for by the Directives) and to impose adequate fines on those that put such products in the market.

In the light of the New Approach, producers are the ones to take responsibility for the products. The producers are in obligation to ensure their products to be in conformity with the substantial requirements provided for under the Directives and that relate to them. During the planning and

designing stages intended for products, producers should use the harmonized standards. Depending on the Directive requirements, either producers themselves (self-assessment) or the engaged notified bodies conduct the procedure for conformity assessment that verify their products are in conformity with substantial requirements provided for under the Directives. As verification that their products are safe for the consumption, producers develop so called Statement on Conformity by which they undertake the complete responsibility for products, and mark their product by EC label.

The notified bodies carry out the procedure of conformity assessment within the framework of the New Approach Directives whenever it is required to involve participation of a third party, and issue corresponding certificate thereafter. The state is responsible for ensuring that the notified bodies maintain competence and that they are capable of doing the job for which they have been notified. It is up to them to establish the forms and methods for achieving that.

Having in mind the obvious difference between the existing status in Montenegro and the said principles and rules that exist and that are applied at all levels of the EU, a conclusion can be derived that the procedure of gradual accession of Montenegro to the EU requires a series of activities to be undertaken with the aim to make harmonization within this area. The activities should be conducted through the implementation of the defined general and specific goals and strategies for their completion.

General goal: Harmonization and implementation of technical legislation in the areas covered by the New Approach Directives.

Specific goals:

- **Transposition of the New Approach Directives to the national legislation;**
- **Transposing the EN standards to the national ones;**
- **Forming and strengthening the network of the authorized bodies for conformity assessment - the future notified bodies;**
- **Establishing the effective and efficient market monitoring of the products covered by the New Approach Directives;**
- **Permanent training of stakeholders.**

The Strategy for the implementation of specific goals:

- 1) Transposing the New Approach Directives to the national legislation

The Government of the Republic of Montenegro will define the competences and the dynamic for transposing the said Directives (i.e. for the existing ones, as well as for the future ones).

Care should be taken that, simultaneously with the transposition of the New Approach Directives to the national legislation, the existing pieces of legislation that are inconsistent with the requirements provided for under the Directives are annulled. At the same time, it is required to prescribe transitional provisions in the majority of cases, in order to avoid negative effects to emerge in the market.

The deadline for the implementation of the goal is 2009.

2) Transposing the harmonized EU standards to the national ones

The Institute for Standardization will make a systematization of the priority standards from among the harmonized standards of the EU and it will launch the procedure for their proclamation as the national ones. At the same time, care should be taken that a number of the harmonized standards (some 800) was translated to the Serbian language – within the framework of the S&M – Quality Projects – and now those translations are the property of the Institute for Standardization of Serbia.

The Institute will develop separate action plans for taking over the standards. The plans will be the subject matter of annual reviews and analyses relating to whether they support the public needs and economic progress.

3) Establishing and strengthening the authorized bodies network for conformity assessment

When it comes to the procedure for conformity assessment of products that fall under the New Approach Directives, producers are most frequently asked to engage an independent, unbiased and competent body that has been authorized by the state and the notified to the European Commission. The public authorities are recommended to pursue accreditations on the occasion of authorizing a body for conformity assessment, in order to verify the technical competencies of such bodies. Besides the evidence of the technical competences, an authorized body for conformity assessment must meet also additional requirements that are provided for by the state.

As the initial step, it is required to reconsider the legal instrument (taken over from the level of the State Union of S&M) that prescribes the procedure for giving authorities to all bodies for conformity assessment, minimum criterions that a body should meet in order to be authorized, authorization life and the conditions under which such authorization is annulled. As long as a body meet the defined criterions, such body should be authorized for doing conformity assessments in its area of competence and to the extent prescribed therefore. It is also necessary to develop and to keep the registry of all authorized bodies for conformity assessment. Thereby, the status of conformity assessments made within Montenegro would be identified and the network of competent bodies for conformity assessment would be established.

Those bodies for conformity assessment that fall under the New Approach Directives should be selected from among the defined network of the bodies for conformity assessment. If the bodies for conformity assessment desire to perform the functions of notified bodies, they shall meet additional requirements that are provided for by the requirements under the New Approach Directives.

It is also necessary to find the way either via trainings or via other forms of assistance, primarily from the donations from the EU, to support the bodies for conformity assessment that tend to become the notified bodies.

The activities for establishing the Network of Authorized Bodies for Conformity Assessment should be launched without any delay, whereas the strengthening of such Network should be a continuous activity.

4) Establishing effective and efficient market monitoring of the products that fall under the New Approach Directives

The new method of monitoring the internal market within the EU, which relates to the products that fall under the New Approach Directives, put the highest emphasis on the effective and efficient work of the market inspection. The change of mandatory certification of products prior to their putting on the market both into the transfer of responsibility for food safety to producers and into the monitoring of products after their putting on the market positions the market inspection to the level of the key factor for the market monitoring. Regardless of the fact no method of work arrangement has been prescribed, all the EU member states are in obligation to conduct an effective monitoring of their respective overall territories and to exchange information thereof with other member states.

It is obvious that the current situation should be gradually changed when we take into consideration the process of accession to the EU. One of the possible models is to form so called "technical inspectorate". Its task would be to monitor products (on the Montenegrin Market) that fall under the New Approach Directives (or under the majority of them), to eliminate unsafe products that are not consistent with substantial requirements under the Directives from the market, and to exchange information of the activities with other inspectors from the EU via the system for the rapid exchange of information (RAPEX).

5) Permanent training for stakeholders

Permanent training for stakeholders is separately presented under Chapter 2.10 hereof.

2.6 Environmental Management System in the function of the quality infrastructure improvement

Environmental Management System, i.e. the so called « ecology management » implies management of the organized human activities within business organizations with the aim to decrease consumption of raw materials and energy and to reduce the resulting waste, as well as to diminish negative effects on the environment in general. The application and certification thereof is a proof that the managing persons and employees are dedicated to the environmental protection.

International standards under ISO 14000 series governing the environmental management describes the formalized (standardized) system of environmental management that should be pursued at the levels in production and service delivery based business organizations, both in the public and in the private sector. The standards are based on the conception of the **sustainable development** and on the preventive systematic approach to the environmental management.

The Republic of Montenegro expressed, in its Constitution and the Project titled "Ecological State of Montenegro", as well as in its Declaration of Ecological State of Montenegro that was approved in the session of the Parliament of Montenegro in 1991, its commitment to develop itself as an ecological state. Such commitments of Montenegro were internationally recognized in the UN Conference on Environment and Development, which was held in Rio de Janeiro in 1992, by including them in the Agenda #21. Thereby, our strong intentions to protect the identity of the

country we live in via the sustainable development were basically defined as principles, along with the observance of the full consistency of the exploitation of resources, investment directions, technology development and industrial changes not only with the current but with the future need as well.

The family of the standards under ISO 14000 series include the management systems and tools, as well as testing, labeling and analyzing ecology related activities with respect to both business organizations and products. Such approach has already appeared as effective in the quality management by using ISO 9000 series, which precedes and follows ISO 14000 series and, taken together, they indicate to the strategic directions and requirements for environmental management and reaching the global conception of sustainable development.

In addition to reaching the goal to which the world aspires, i.e. the clean and healthy environment, the companies that decide to introduce the environmental management system according to the ISO 14000 series may have multiple benefits; they prove that they seriously consider their portion of responsibilities for the status of environment and, thereby, they improve the image of themselves and their chances to be involved in public businesses as well; they decrease unnecessary expenses caused by the inconsistency with the pieces of legislation, and increase the effectiveness of the materials and energy consumption; they gain the priority within market and, what is most important, they are capable of appearing in new markets upon obtaining the certificate, i.e. in the markets that require such certificates. Regardless of the fact they are not required (for now), as well as the standards from ISO 9000 series, these standards, i.e. their fulfillment, could be a precondition for companies to enlarge their activities within the EU market.

Environmental management should serve as the tool for **launching necessary changes** that economy must undertake to preserve its competitiveness under the New Approach.

Therefore, the standards of ISO 14000 series should be understood as the locomotives of competition and survival within market place, which are followed by the decrease of negative effects on environment and natural resources and energy consumptions, and not only as an additional obligation and an additional expense.

The basic goals that Montenegro desires to reach through implementing the strategy for introducing the environmental management according to the standards of ISO 14000 series, which are component parts of the basic goal named the "Ecological State of Montenegro", are as follows:

- *the protection of environment, and its permanent improvement,*
- *effective enforcement of laws and regulations governing the environmental protection;*
- *survival and acquiring the competitiveness within increasingly rigorous international market;*
- *systemic involvement of environmental protection in business decision making process, as a step for establishing the global conception of the sustainable development;*

The basic goals of environmental management are achieved by implementing the activities under the strategic directions, such as:

1. **Finalization of the legislation governing the field of environmental protection:** the basic precondition for a successful enforcement of the standards intended for environmental protection (JUS ISO 14000) is to complete the legislation governing the field of environmental protection.

Regardless the legislation regulating the field has not been completed, the fundamental regulations exist and there are no substantial obstacles to the introduction of environmental management system according to the standards under ISO 14000 series.

2. **Motivations and stimulations for economy and, particularly, for industry, to start applying the standards of JUS ISO 14000.** Economy and particularly the industry of Montenegro should be motivated and stimulated to approach to the application of JUS ISO 14000 standards along with the application of the standards of JUS ISO 9000 series, in order to commence the implementation of the concept of ecological state at the level of economic entities.

The motives that encourage companies to approach to the introduction of the standards under JUS ISO 14000 series are, primarily, tendencies to reach the certificate so as to be considered, by their consumers and the public authorities, eligible to transact their businesses, as well as to satisfy the demands of foreign investors that have already introduced environmental management and to whom those companies are in supplier or sub-supplier relation. That implies the evaluation of the system via third parties, for evidencing the conformity with the requirements.

The role of the state in relation to the standards is restricted to the creation of preconditions for their introduction (e.g., passing legislation regulating the field of environmental protection; passing national JUS ISO standards), as well as the instructive frameworks for testing the environmental management system and its certification, and then for self-declaring or awarding ecological label and other methods in which companies can demonstrate their contributions to the environmental protection.

Regardless the standards under ISO 14000 series are voluntary ones and having in mind the commitments of Montenegro to be an ecological state, it is required to consider the obligation to apply the standards under JUS ISO 14000 series in those companies that are potential environment polluters and huge energy and raw materials consumers.

3. **Establishing the national ecological label (ecolabel) for products: it is required to adopt the National Program for Ecological Labeling of Products** in harmony with internationally recognized standards. Steps that are generally undertaken by all countries during developing their Programs, and which are defined under this Strategy, are as follows:
 - (1) establishing product groups,
 - (2) assessment of the effects product of a particular group have on environment during their overall life cycle;
 - (3) establishing ecological criterions for awarding ecolabels, and

- (4) the method to certify and verify ecolabels.
4. **Inclusion of the conception of sustainable development as a task for all business systems and at all levels of management, starting from the public administration and going to the level of companies, whereas to posts and duties that such conception implies within companies.** In order to ensure sustainable development, with the environmental management as its key guiding line that is capable of implementing itself, it must be integrated into all organizational systems and in all levels of management in the society as “ecological goal”, starting from international community and going via the level of public administration to companies and to working posts and duties within companies.
5. **Rising awareness among managing resources of the importance of the strategic environmental management and raising general awareness of the significance of environment:** the success of the environmental management system in an organization depends on the understanding and strong support on the part of its management, as well as on the acceptance thereof on the part of all employees.

In order to ensure the support by both management and employees, general, advanced and professional trainings should be organized and conducted for the purposes of environmental protection and for the purpose of educating managers, designers and assessors of the environmental management system.

As for the implementation of this strategic direction, an important role should be played by the Quality School that is aimed at training the EMS engineer and EMS managers, as well as by the electronic media that should produce educational serials.

2.7. Occupational Safety Management System for the Quality Infrastructure Improvement

Occupational safety and health in the course of production of goods and services and the safety and protection of health of the users of goods and services are two important components of the overall system of free movement of goods and services.

Occupational safety and health management system is one of the four pillars of integrated management system as a new paradigm of management. This system became a subject of ISO 18000 international standard, the requirements of which guide the management of an organization and against which the organization is verified and certified.

Each organization needs to apply OHSAS (Occupation Health and Safety Assessment System) instructions and requirements, although some to a greater extent and more rigorously (production of flammable substances and explosives, production and processes performed at heights and in water, processes in mine pits etc.), and some to a lesser extent and with fewer tests

(work in hotels, banks) and the third group which includes all other productions and services is placed somewhere in between these two extreme groups.

Occupational health and safety management system is established to eliminate or reduce the risk for employees and other stakeholders from occurrence of **harmful effects, incidents** or **accidents**, leading to health disorders, injuries or another loss.

This management system is particularly interesting and demanding for Montenegro, which has commercial organizations (ferrous metallurgy, aluminum, airports, shipyards, ports, hotels etc.) which include high risks with respect to the occupational safety.

By establishing the occupational safety management system in accordance with the requirements of ISO 18001 standard, the organization will reduce the risk of injuring and impairment of health of the employees in general.

The company managers will be responsible for the establishment of the occupational and safety management system in particular because they are those who establish policy, plans, training and system of responsibilities and communications.

Apart from the management of an organization, the important role in the establishment of safety management system is played by trade union associations and the Government of the Republic of Montenegro – line ministry. Line ministry is obligated to transpose the requirements of European directives and guidelines into national laws and rule books and to control their implementation through the competent inspectorate.

2.8. Food Quality and Safety Management System for the Quality Infrastructure Improvement

Agriculture and food production (food and feed) receives increasingly more attention in the European directives and international standards and it is covered by the strictest aspects of so-called regulated conditions.

Thus, ISO 9000:2000 standards for the needs of agriculture and food production have been “strengthened” with obligatory annex to the HACCP (Hazard Analysis and Critical Control Point) guidelines, and accordingly ISO 22000 standard has been developed and published (in 2005). This standard and HACCP relate to all types and all stages of food industry, ranging from growing, harvesting, processing, distribution and sale, to food preparation for consumption. Each food producer must develop its own HACCP adjusted to the product, production processes and distribution requirements. HACCP’s importance has increased by its transformation from the status of the instruction to the status of ISO 22000 International Standard.

Food export (classic and/or through tourism) as well as the care for the health of population require the food producers to establish and comply strictly with European directives and international standards. This is a long-term and complex process requiring activities at two levels:

- (1) at the level of the State, creating of ambience and staff training;

- (2) at the level of the companies, forming of teams, concrete work on QMS and HACCP establishment.

Ministry of Agriculture, Forestry and Water Management has a specific role to animate and encourage the processes, and frequently to be the implementing authority, initiator and financial support to these processes. Implementation of this important strategic commitment is realized through annual programs.

Example of "Plantaže" Company, which has established QMS and subsequently HACCP and other standards, gives also rise to optimism that these standards may be implemented efficiently in food production.

These standards should be applied in hotels and restaurants (Chapter 3.10).

2.9. IT Service and Information Security Management Systems for the Quality Infrastructure Improvement

ICT development in the world gave rise to the need to develop international standards for the IT service management system and the series of standards relating to information security. Having in view the strategic commitment of Montenegro to develop as an information society and that the efficiency of organizations is expected to be achieved through implemented information systems, these standards are becoming very interesting and necessary for the quality infrastructure development in the Republic.

The IT service management system defined under ISO/IEC 20000 series is based on an integrated process approach to the management of service preparation and delivery in the field of information systems.

These management systems have been harmonized with other quality infrastructure standards. To enable organizations which are IT service users to implement successfully quality infrastructure management system standards, IT service providers must implement the IT service management standards. This requirement defines the need to harmonize IT service management with the requirements of ISO/IEC 20000 series.

Information security is especially important nowadays, when the information in the largest number of organizations is in digital form, appropriate not only for handling in operations, but also for abuses. Having this in mind, the importance of information security should be emphasized, which has also been noticed by the International Organization for Standardization (ISO) so that it prepared and published ISO 27000-series international standards (Information Security Management Systems).

ISO 27000-series standards are compatible with ISO 9000 standards, i.e. with the quality system requirements.

Implementation of this series of standards should reduce the risks in information systems originating from:

- external environment (from the Internet, e-mail, viruses etc.), as well as those originating from the environment (fire, vandalism, earthquakes etc.),
- inside the organization (hardware problems, software problems etc.).

With respect to the economic and non-economic structure of the social life in Montenegro, implementation of the requirements of ISO 27000 series of standards is very important both for the competing organizations and for banks, insurance companies, health institutions, public administration etc.

2.10. Spreading Knowledge of Quality for the Quality Infrastructure Improvement

It is considered that the success in the quality infrastructure management systems improvement in some developed countries (Japan, Sweden) has been achieved due to the programs of uniform dissemination of knowledge of the quality, technologies and management to a wide range of employees, as well as to those preparing for professional life. This means spreading knowledge of the quality through regular education, through permanent education of employees and through mass education of citizens.

Experiences of the developed European countries and opinions of scientists indicate that the aims defined by the quality policy cannot be reached without strategic commitment to spread knowledge of the quality.

Strategic direction: spreading knowledge of the quality in Montenegro can be achieved through the following approaches:

- *spreading knowledge of the quality through primary and secondary education;*
- *spreading knowledge of the quality through the University;*
- *spreading knowledge of the quality through permanent education;*
- *spreading knowledge of the quality through mass education;*
- *spreading knowledge of the quality through scientific institutes.*

2.10.1 Spreading Knowledge of the Quality through Regular Primary and Secondary Education

Education is the beginning and it accompanies necessarily each successful activity dealing with the quality system improvement. Regular primary and secondary education is the basis for every other form of education and for the quality infrastructure in particular.

Regular primary and secondary education in Montenegro is especially important for further work on improvement of the quality infrastructure system in Montenegro particularly with a view to achieve mass education, as well as for joining European integration processes relying on education and free movement of persons in the EU member states. "Education and mutual recognition of qualifications is a suitable mechanism to overcome barriers to the free movement of goods and services." (White Paper - Preparation of the Associated Countries of Central and Eastern Europe for Integration into the Internal Market of the Union, Brussels, 1995). This can be achieved by actions carried out in two main directions:

- *through permanent education of primary and secondary school teachers,*
- *through processes of the quality system improvement in schools according to the requirements of ISO 9000 series of standards and TQE (Total Quality Education), for primary and secondary schools.*

Permanent education of primary and secondary school teachers should be organized through winter and summer quality schools. These quality schools for the teachers would be devised in accordance with the concept of such schools in the EU member states. Apart from these modalities of permanent education, some teachers would undergo training for quality engineers and managers. Processes of the quality system improvement should be implemented according to the requirements of ISO 9000 series of standards and TQE approaches. The quality system improvement should be implemented in a selected "pilot" school, and subsequently system improvement should be implemented in other schools of the same type according to this model and by trained people.

The school endeavoring to improve the system of quality should set as their main target to achieve student satisfaction, teacher satisfaction, parents' satisfaction and satisfaction of the community.

2.10.2 Role of the Public University in Spreading of Knowledge of the Quality

This Strategy considers obligations and roles of the public University and not those of private universities, although they also have an important role in the spreading of knowledge.

The role of the public university in the dissemination of knowledge of the quality in Montenegro is very important, and it can be considered to be crucial in many aspects:

- a) *understanding the process of the quality system improvement, a new management paradigm relating to all areas of science, business and social life in general. All areas of social life (except for the arts) are covered by these processes. Understanding of this by the professors requires their training, through different forms, so that they could transfer this knowledge to students and others;*
- b) *introducing specialist and master's studies in the field of the quality at the University;*
- c) *certification of faculties and institutes in accordance with the requirements of ISO 9000 series of standards, and of the institutes and laboratories according to the EN 45000 and ISO 14000, i.e. ISO 17000 series of standards;*
- d) *organization of the Quality School for the quality engineers and managers and of schools for environmental engineers and managers;*

Proceeding from the aim of inclusion of Montenegro into European integration processes and the fact that the universities in the EU member states are transformed in accordance with TQE requirements and that the compliance with the requirements of standards will become a precondition for diploma recognition, the University must have an active role in these processes. Such role would enable compliance with European learning standards, and most importantly the University would become a generator of new approaches to the quality and environmental management through its graduates.

In these processes each university unit should find its interest proceeding from the interest of the society. This means that if the University wishes to initiate, develop and manage some processes,

such as the quality system, it must improve such processes within itself. This is the obligation and the responsibility of the University; however, it is also the requirement imposed by the society which is the user of its services and products. The products of the University are the knowledge which its graduates bring from there.

The University of Montenegro should take its positions regarding the policy of the quality and impose an obligation on all university units to comply with those positions.

2.10.3 Spreading Knowledge of the Quality through Permanent Education

Domestic and foreign experiences show that there is no introduction of the quality management system without adequate education of employees and it is especially necessary for managing and expert staff to have various and multidisciplinary knowledge, as required by managing and organizational system, such as the quality system. Training in the quality must include innovation and exchange of knowledge in all fields, such as: new programs, new markets, new products, new suppliers, new technologies or new methods of financing.

Organization (a company or an institution) is a system, as a group of activities and roles, which is constantly changing and requiring new group of skills acquired by learning. This learning, based on new approach to the quality system, is seeking to find an answer how to perform a task and why something is done, for whom it is done and how it can be done better.

This requires an individual who is continuously learning, learning teams and learning organization (companies – institutions). On-the-job training is mandatory (ISO 9001) for an organization, training generates new knowledge, new knowledge generates jobs and new jobs require new training.

Permanent Training of All Stakeholders

In the overall process of harmonization and approximation to the EU, it is necessary to carry out permanent training of all stakeholders such as civil servants, national standardization body staff, conformity assessment body staff, market inspection body staff, producers, consumers etc. The training should be started immediately. The process of association with the EU requires a change of mindset and a new method of work and thinking. The marking “CE” is freely interpreted by many as an abbreviation of “Change Everything”.

Projects of the EU assistance, as well as the experience of the region in the process of transition must be included so as to achieve faster and more efficient implementation of all above-mentioned objectives.

Permanent training should be implemented through *the Quality School* which is organized now for the quality engineers and managers, and its responsibilities must be expanded to include the training of:

- *primary school teachers;*
- *secondary school teachers;*
- *managers and professionals in tourism;*
- *managers and professionals in public enterprises;*
- *managers and professionals in banks and insurance companies; and*

- *managers and professionals in other groups of companies and institutions.*

All managing persons and more than half of the staff in public administration should undergo training in the quality schools. The aim to be achieved is to train around 1,000 of participants in the training on an annual basis and to register a number by EOQ according to ISO 10011 standards. It is believed that the investment in permanent education of the managers is the best invested money.

2.10.4 Spreading Knowledge of the Quality through Mass Education

Education of all strata of population in the quality management system and generally in the quality infrastructure is a very important assumption for success. This system of education should be implemented through:

- *TV shows addressing directly or indirectly the themes relating to the quality. These shows should be associated with different programs: educational programs, scientific program, business program for children and others;*
- *radio programs;*
- *daily and weekly newspapers;*
- *appropriate lectures, panels and in other ways; and*
- *Internet.*

2.10.5 Spreading Knowledge of the Quality through Scientific Institutes and Other Research Institutions

Overall role of spreading of knowledge and know-how of the scientific institutes includes an important role to disseminate knowledge of the quality to its clients and suppliers. The importance of scientific institutes in the area of the quality system is increasing also due to the fact that their laboratories are often testing laboratories for products and teaching units of certain faculties. Scientific institutes may implement their role of spreading of knowledge in many ways however the experiences recommend the following:

- *Institute improves the quality system in its units in accordance with international standards of ISO 9000 series;*
- *By enabling its laboratories to obtain accreditation for attestation of products, of technologies and goods traded;*
- *Work on the quality system improvement with the suppliers and with the buyers of institute's services;*
- *Permanent training of staff and training of clients in the context of the quality system.*

2.11. Establishing the Quality Management System in Companies for the Quality Infrastructure Improvement

OHSAS concept for the needs of a hotel as an organization, where the staff is employed and where a large number of guests stay for a short or for a long period, is particularly important for a hotel because the conditions should be created to ensure that no one who stays there or has an opportunity to handle different equipment or materials, where there is a danger to be injured,

experiences an unpleasant situation or suffers an injury. Therefore, it is important for the hotel management to manage the processes and thus to control the risks and improve overall performances so as to reduce the risks of inconvenience and injuring of staff and of guests.

OHSAS main requirement is for the organization (hotel) to establish and maintain the security and health management system for the staff and guests.

The quality infrastructure system leads to fast way out of obsolescence, faster linking with the world and it is an appropriate way for the so-called improvement free of investments of the processes and increase in profit. Quality infrastructure system as a permanent process generates other positive processes, spreads corporate culture, promotes education, motivation processes, innovation system and, most importantly, it establishes fair play and enables development of an efficient management system.

The quality infrastructure system is essentially a transformation process providing opportunities for the enterprises and other organizations to get involved in the European integration processes. Quality system as an attribute of the transformation of a company or an institution means orientation towards the market, flexible relationships, systemic approach to the problem-solving, motivation, mass involvement and continuous learning of employees.

The quality infrastructure system and total quality management is a paradigm of the new style of corporate management requiring the organization to make a transition from the age of machines into the age of systems, but it requires the environment of an open market and competition as well as a clear ownership structure.

The quality infrastructure system transforms corporate management into a new approach characterized by: breaking up with traditional approaches, scientific approach (transparency of an organization), management and uniform dissemination of knowledge of functions and automation. The approach to the transformation of corporate management in Montenegro should be such to ensure that the development of systems in one company influences positively the development of systems in other areas.

2.11.1 The Quality Management System in Companies Performing Public Functions

Companies performing public function in Montenegro, with respect to the dominance of their influence on performance and development of wider business environment, have a significant role in successful promotion of new approach to management, generated by the quality system, implementing it firstly in their own organizations and requiring it also from their suppliers. This primarily refers to the companies performing public functions or having monopoly position, such as: *Elektroprivreda Crne Gore (Electric Power Industry of Montenegro)*, *Željeznica Crne Gore (Montenegrin Railways)*, *Pošta Crne Gore (Montenegrin Post)*, *Telekom Crne Gore (Montenegrin Telecom)*, *Crnogoraput (Montenegrin Road Construction Company)*, *JP Morsko dobro – Budva (Public Enterprise “Coastal Zone” from Budva)*, *Crnogorašume (Montenegrin Forests)* and utilities.

To begin with, each company performing public functions should adopt positions on the quality policy, adopt activity plan and program for the implementation of the adopted policy and organization, training of managing staff. This obligation is conditioned by the very fact that these companies perform public functions.

2.11.2 The Quality Management System in Large Organizations

With the exception of the organizations performing public functions, Montenegro has a small number of large companies. The role of large companies in dissemination information of the quality system approach is similar to that of public enterprises. In Montenegro, the following companies in particular have this role: Željezara-Nikšić (Steel Works, Nikšić), KAP-Podgorica (Aluminum Plant Podgorica), Brodogradilište Bijela (Shipyard, Bijela), Plantaže-Podgorica (Plantations, Podgorica), Luka-Bar (Port of Bar), Željeznica Crne Gore (Montenegrin Railway) and Trebjesa, Nikšić. Large companies should be leaders of the quality system improvement encouraging their suppliers (as the other party) and satisfying their customers.

2.11.3 The Quality Management System of Small and Medium Organizations

Medium-sized organizations are generators of production in developed countries, and they rely on large public enterprises and multinational companies. This is not the case in Montenegro, which is caused most frequently by non-finalized ownership transformation, lack of international cooperation and, thus, the market. In competitive conditions, such enterprises may be the best promoters of the quality movement and with it they should move toward establishing links with multinational companies and national public enterprises.

The best example of compliance with international standards in circumstances of fierce competition, of successful development of the quality system and information system and creation of conditions for survival and development is the company named Fabrika elektroda Plužine (FEP) (Electrodes Factory from Plužine). This company may be a model for other companies, namely, with little money and with policy of improvement pursued well, it is possible to achieve the results which are valued equally highly in the country and in Germany.

For small production companies (up to 60 employees), establishment of the quality management system is a pass for cooperation with large public companies as well as for foreign companies for which they should produce as sub-suppliers. This also relates to organizations providing services.

As regards the strategic orientation of Montenegro with respect to small and medium enterprises, establishment of the quality management system in these companies is exceptionally important, particularly in the area of production of food and medications, where there is an obligation to comply with international standards.

Establishing of QMS in small enterprises should develop in an organized manner under the "scrutiny" of the State. The costs of establishment of QMS may be proportionately high for small business, so that this process should be implemented in towns. This means joint training of employees which would be financed by the State and implementation of setting-up procedures for a group of companies.

2.11.4 Service Quality Management System

Strategic direction of development of service quality system (except for the tourism which is analyzed separately) is especially significant for Montenegro, due to major commitment to the development of services, which is also a global mega-trend.

Development of the service quality system contributes to the development of services, opening of free market of services and it helps creation of conditions for development of integrated relationships. All segments of services are important for these processes: banks, insurance companies, the Automobile and Motorcycle Association of Montenegro, private car repair shops, transportation (all types: bus, road, cargo, rail, maritime, air) and trade.

For some of the companies dealing with services such as those from the field of transportation (rail, air and maritime), there is a range of international standards, the EU directives and rulebooks which they must observe if they have the intention to be a part of the European traffic. This refers also to airports, service shops, insurance companies and banks.

Improvement of the quality system in banks and insurance companies has double effect: (1) these organizations harmonize their work with the international standard requirements and, thereby, improve their performance and (2) by their attitude, the banks and insurance companies influence the clients to improve their quality system as well.

Main strategic direction is for the companies providing services to enter the process of system improvement in parallel with the implementation of standards and rules required by the EU directives.

2.11.5 The Quality Management System in Tourism

Tourism, as a strategic direction of development of Montenegro, is also the strategic direction of quality infrastructure system development. The quality infrastructure management system improves also the management system in tourism and in all companies and institutions dealing with tourism. The quality infrastructure management system in tourism encompasses the quality in more than ten sectors of the tourism offer: tourist agencies, hotels, restaurants, international transportation, intercity transport, local public transportation, taxi services, car rental services, sports facilities, cable cars, museums and historical monuments.

Apart from these sectors offering direct tourist services, sectors having indirect impact on the offer should be mentioned as well: public safety, trade, public sanitation, cleanness and equipment of beaches and excursion sites. Strategic direction of development of the quality infrastructure system in tourism is implemented in accordance with the requirements of ISO 9001 standard and according to the instructions from ISO 9004:2000 standards and in line with ISO 22000, ISO 18000 and ISO 14000 standards.

Because of increasingly present request from the European associations and major users of services for certification of the so-called *ECO-hotels*, hotels should recognize these requirements and implement them, which leads to savings in energy consumption and contributes to environmental protection.

QMS principles (See 1.4.) and requirements of ISO 9000 series of standards will enable tourism workers to be more responsive to requirements, needs and wishes of the customers and to implement constant improvements in a verifiable manner. Improvements must be present in all elements of tourist product, and this means that the entire staff and population must be committed to it. This requires QMS principle – orientation towards employees, which can be achieved only by leadership approach to management.

For the development of tourist activities and for creation of assumptions for longer tourist season, it is necessary to create objectively assessed permanent tourist values and establishment of partnerships with all suppliers.

Important assumption for the improvement of tourist offer quality is to create awareness and understanding that the quality is achieved by each activity from promotion to post-implementation. Furthermore, it is important for this strategy that the awareness and understanding of the quality are not acquired through guidance or incidentally, but by coordinated, long-term and strenuous work.

The basis for the improvement of the quality infrastructure management system is the training of managers in tourism, and then, of other employees as well as of employees from the said nine sectors of the offer and employees from the sectors influencing indirectly the tourist offer quality. It should be highlighted that the tourist services are, after health services, the most sensitive type of services with respect to the quality. The examples when a low-quality tourist service provided by one or two persons can create an image of low quality in entire tourist village or place are very well known. This is why all tourism workers, regardless of the fact if they work in direct or indirect sector of tourist offer and regardless of their ownership status, are paid special attention by the State in terms of promotion and also by the tourist police in terms of control. The level of knowledge they have and significant burden of traditional view of tourism, i.e. not understanding the role of tourist services in the overall development of Montenegro and of private business, indicate that it is necessary to make radical changes in the approach to these services by the process of the quality system improvement, which cannot be carried out on its own. This is why it is necessary to implement these processes with desirable technical assistance of the European institutions. In this sense, the cooperation with the European institutes and companies which has already been initiated should be continued.

2.12. The Quality Management System in Public Administration for the Quality Infrastructure Improvement

Referring to the European vision of the quality, as a starting point for this strategy, and great importance it attributes to the public administration quality (Chapter 1.3), as a generator of the quality in business and non-business sectors, the Government of Montenegro, in its positions on the quality policy made a commitment to set an example of how to promote the quality system improvement in the Republic.

This practically means that the Government itself will make efforts to improve the quality system in its ministries, secretariats and directorates. The quality management system in governmental institutions will support in the best way the strategic direction of the improvement of the quality system in companies and in institutions.

Following the example of the Ministry of Transportation, Maritime Affairs and Telecommunications, this strategic direction of development of the quality management system in the Republic is efficiently implemented through:

- a) Improvement of the quality system in governmental institutions is a precondition for the administration reform, or vice versa, administration reform is a precondition for the quality system improvement. It is best to start both processes at the same time because they are indisputably interwoven and intertwined;
- b) Each ministry that initiates the process of the quality system improvement will contribute substantially not only to the overall process in public administration but also the processes in business sectors (industry, agriculture, tourism) and non-business sectors (health care, schools, banks and insurance companies, judiciary etc.);
- c) Government of the Republic of Montenegro, pursuant to the Constitution and Parliamentary Declaration on the Ecological State of Montenegro, is obliged to harmonize its state institutional structure with international requirements in the area of environmental management (ISO 14000). Introduction of the system of environmental management in public administration includes:
 - *that this system should be introduced by the Ministry of Transportation, Maritime Affairs and Telecommunication, and subsequently according to that model it should be introduced in other ministries as well (Ministry of Health, Labor and Social Welfare, Ministry of Tourism and Environmental Protection, Ministry of Agriculture, Forestry and Water Management, Ministry for Economic Development etc.);*
 - *on the order of the Government, the environmental management system should be introduced in public enterprises, enterprises having state-owned capital and enterprises which have been registered as environmental polluters;*
 - *The Government of the Republic of Montenegro will encourage and assist spreading of awareness of the need to protect environment, through the quality schools and environmental management;*
- d) For the improvement of the quality system and environmental management it is necessary to implement these processes in local government units, according to the program exclusive for the municipality or some of its territorial units. Selected municipality in which these programs would be implemented first would be a "pilot program" for implementation in other municipalities.

Municipality or the town, which has the best preconditions to be a "Pilot" of this project is Kotor. The reasons are manifold:

 - *Kotor is a UNESCO protected town;*
 - *Several organizations showed their intention to start improving the quality and environmental management systems (the Community Health Centre, the School Centre, the Marine Biology Institute, the Information Center of the Municipality);*
 - *Political will has been expressed for Kotor to become the town certified for the quality system (ISO 9000) and for the environmental management system (ISO 14000). The level of the civil culture and awareness is such that political will is reflected not only in the administration but in the evident need of the citizens.*

3. ROLE OF STAKEHOLDERS IN THE QUALITY INFRASTRUCTURE IMPROVEMENT

3.1 The Role of the State in Quality Infrastructure Improvement

The quality infrastructure system as a global process which covered almost all countries world-wide, has a significant influence, in our case, on structural and systemic adjustment of business sector and other social system sectors to the European trends, so that the task of the State is to ensure the relevant conditions for this process by its systemic laws and economic policy instruments.

Development of the process of the quality management system improvement to date gave positive results although it started at unfavorable time, in early 1990s. Those results show that by patient, systemic, professional and well-coordinated work, with minor financial investments, new relationships, new organizations and new production structures may be generated following contemporary economic trends in the world. These processes are particularly interesting and favorable for us because they do not require investment of considerable funds and results ensuring conditions to fit into international market competition game can be achieved with minimum investments of money and with maximum engagement of human resources.

Main factors depending on macro policy and influencing successfulness of the quality system improvement are as follows:

- *market conditions enabling fulfillment of needs and expectations of the buyers (market ambience);*
- *control and management of human, organizational and technical factors require consistent management system, which is achieved by clearly defined ownership structure;*
- *implementation of the organization ensuring the requirements of the standards to be fulfilled requires new knowledge and mass learning, and compliance with international and national norms;*
- *stable economic policy and instruments of economic policy promoting export, development, innovations and the quality; and*
- *compliance with international standards, technical regulations.*

These are not the only factors, but the factors mentioned are those defining the environment in which the business system and the quality system operate. These are the factors which are largely under the control of the State, and the most important ones of these are:

- 1) **Market ambience:** Free market competition is a natural ambience in which the quality system is operating, developing and improving. Such ambience is regulated by active national policy not preventing competition, not favoring market players but which clearly defines public needs and directions of economic development.

- 2) **Ownership structure:** Clear ownership structure (state-owned, mixed, private) and a consistent management system enable management function and accountability of the quality management.
- 3) **Education – training:** Starting from the definition of the quality as a learning skill, the quality system starts with the education and it is implemented by means of continuous endless training. Education relates to those who are yet to start working, as well as to those who are already employed. Mass training is necessary for mass participation in the process of the quality system improvement. Regular education (primary, secondary and higher education) falls within the competence of the State.

Permanent education of employees is organized with the assistance of professional associations, consulting organizations, mass media as well as of scientific institutions with the support and in accordance with the program of the quality adopted by the Government of the Republic. The operation of the Quality School is especially important for successful permanent education in the quality and environmental management systems. The role of the media is particularly significant for mass education (described in more details in 3.9).

- 4) **Economic policy:** Through its economic policy, the State promotes the development of the quality system in enterprises and institutions by means of tax privileges, customs privileges, loans etc. and, thus, it stimulates this process. Improvement of the system of quality serves to improve productiveness, profitability, competitiveness of economy and corporate modernization and corporate management, so that this process should be considered to be a very important component of technological development. The Fund for Science and the Fund for Technological Development of the Republic will attach priority in terms of financing to the projects addressing the quality infrastructure when adopting annual plans.
- 5) **National regulatory framework:** In order for the business system to conform to the requirements of the standards, it must also comply with legal and other norms of the society. Requirement of compliance with laws and regulations generates new requirement, that is, the norms must be in line with the international standards or rules. The State develops legal and technical structure for the control over compliance with the laws and regulations. The role of the State in this area is described in 3.1, 3.3 and 3.4.
- 6) **International cooperation:** One of rather important conditions for efficient the quality infrastructure improvement in Montenegro is a successful international cooperation.

International cooperation should be directed towards the recognition of Montenegro as a full member of international standardization organizations, the European Association for Laboratory Testing, the European Cooperation for Accreditation and of other European associations and committees.

At the level of the Republic, international cooperation should proceed in a way that the EU member states, through their institutions, would provide assistance to the organizations in the Republic to form institutional frameworks for development of the environmental quality

infrastructure management system. This refers primarily to the system of training, consulting services, laboratory equipment etc.

7) The role of the media performing public services in the processes of the quality improvement

Goals: spreading knowledge of the quality infrastructure through simple examples and through public media services

The role of mass media described in Chapter 3.2.4, relating to the mass education of population refers in particular to public media, and such need should be expressed through the obligation of its implementation. In this sense, proposals for short-term and long-term needs for addressing the topics and information dealing with the quality and environmental management systems in media would be defined through annual programs,.

3.2. Role of the Chamber of Economy of Montenegro in the Quality Infrastructure Improvement

The Chamber of Economy of Montenegro has a significant role in the processes of the quality system improvement in the Republic. This role is achieved through the work of the Quality Board of the Chamber of Economy of Montenegro, by organizing seminars, consultations, promotions and panels, pointing out that it is important and necessary to establish the quality management systems and environmental management systems.

With the aim of spreading the quality movement and spirit of the quality, the Chamber of Economy promotes the examples of good and certified quality systems by awarding their annual prize for successful business performance to individual companies. The representatives of the Chamber of Economy of Montenegro are involved and act within relevant boards, bodies and associations dealing with establishment and development of the quality system.

Main programs and tasks to be developed, promoted and coordinated by the Chamber and which will further develop the processes of improvement of the quality system and the environmental management system will be:

- *Permanent Education Program and Human Resources Motivation Program in companies addressing the quality system and environmental protection;*
- *Program for Information System Improvement and for promotional activities in the area of the quality, standardization, metrology and environmental protection;*
- *strengthening organizational and administrative capacities and efficiency and development of new business style and culture;*
- *devising and preparation of criteria for sustainable development and strengthening of partnership between the Chamber, as an association of economy, and the Government and establishment of the Sustainable Development Council by the Chamber and business associations so as to develop environmental awareness in economy;*
- *creating funds for covering of risks especially for the projects and programs aimed at sustainable development and to promote the companies the production of which complies with the criteria of sustainable development;*

- *improvement of cooperation between the enterprises and establishment of partnerships between large, medium and small enterprises with the aim of transfer of experiences and technological cooperation in the area of ecology, development of environmental management as a priority task, as well as creation and improvement of possibility for environmental education and training of entrepreneurs and employees;*
- *promoting development of production systems leading to more efficient utilization of resources and decrease of waste in all stages of production and life cycles of products, as well as intensifying research and development in the area of clean technologies through cooperation of business, science and chambers of commerce.*

The Chamber gives its special contribution to the improvement of the quality system and the environmental management system by being organized according to the requirements of ISO 9000 and ISO 14000 international standards.

3.3. Role of the Union of Employers in the Quality Infrastructure Improvement

The quality infrastructure management system being a mass movement requires involvement of numerous proponents of the system, participants in the system, people who are undergoing training, buyers – consumers of products and services, practically, of all strata of the society.

The Union of Employers gathers a large number of employers and having this function it has a major role in spreading of the quality movement. This general goal and general interest include specific interest for each employer as well. Employers have goals and they have interest to implement international standards and in that way to increase competitive capacity of their organizations. The fulfillment of the requirements of international quality infrastructure standards is the best and the most efficient way to balance the interests of employers, trade unions and the State.

The Union, as an association of employers, may significantly encourage the implementation of the quality infrastructure management systems within its members. The Union can, by grouping small organizations by similarity, activity and technology, solve processes of implementation of standards in groups and, thus, enable organizations to obtain the certificates with fewer funds.

3.4. Role of Trade Unions in the Quality Infrastructure Improvement

This text announces for the first time the role of trade unions in the processes of implementation of the quality infrastructure management systems. The role of trade unions in these processes is very complex and it may be observed as follows:

- 1) The role of the association of trade unions, as of a stakeholder, in passing of national standards (international rules),
- 2) The role of the association of trade unions in implementation of ISO 9000 quality standards which improve the status of employees in an organization in all aspects (participation in management of processes, communication, working conditions etc.),

- 3) The role of Association of the Trade Unions in identifying the requirements for occupational health and safety management system (ISO18000). The requirements for all standards are a good method to protect employees at work (Chapter 3.6).

The role of the Association of Trade Unions is not being exhausted through these three items, but the roles of general character have left and they are implemented in cooperation with other partners and stakeholders.

3.5 The role of the Association of Consumers in the Quality Infrastructure Improvement

The Association of Consumers of Montenegro can play an important role in the Montenegro quality system improvement, since it has the position of a representative and a user of products and services and it is the initiator of the preventive and corrective activities and of reexamining contracts and other important requirements under the international standards ISO 9000 series and ISO 14000 series.

In order to provide consumers in Montenegro with such an important role for the quality system improvement and environmental management, they should be organized as provided for by international principles and rules. These are, before all, autonomous protection of consumers (Maastricht Agreement) and the integration of the protection of consumers policy, the internal market policy and the competition policy.

Association of consumers should have an active role that is to be played through the government authorities or consulting structures or inspection and control organizations or informative programs and media or educational programs, bar associations, chambers of economy and otherwise.

Such active role of an association of consumers of Montenegro should relate to all aspects of the protection of consumers (safety, economic protection and alike) such as:

- *general safety of products (CE label);*
- *toys safety and the safety of product intended for general use by children (CE label),*
- *regulations governing textile products;*
- *free movement of cosmetics;*
- *consumer loans;*
- *commercials, price labels;*
- *tourism offer and package arrangements; and*
- *health protection, legal protection and alike.*

Therefore, it is of crucial importance for the quality infrastructure improvement to have an association of consumers of Montenegro in place, which would have its branches in all municipalities, which would contribute to unbiased evaluation of the fulfillment of the demands and rights of consumers.

3.6. Role of the Quality and Standardization Association for the quality infrastructure improvement

The role of the Quality and Standardization Association of Montenegro (QSA-MNE) in dissemination of the knowledge of the quality, culture, new management approach and of the methods of and procedures for standardization and the quality, is huge. The mission of the Association is directed towards the increase of the number of its members, as well as to forming new branches (in towns, larger companies and institutions), sections and boards, with the aim to cherish professionalism and to carry out education related serials and to raise awareness of citizens of the quality infrastructure.

Dissemination of the knowledge of the quality and standardization by the QSA-MNE shall be implemented through the quality schools, scientific and professional forums, round tables, worksgops and seminars, congresses and conferences, as well as by means of books and journals. QSA-MNE is going to enlarge international cooperation by establishing parity and equality based cooperation with corresponding associations from other countries and with the relevant international organizations. Those associations will observe and apply international rules and principles if they are not in violation of the interests of our country and they will make any effort to transpose such rules and principles into the governing laws.

The Association will be engaged in establishing the Republican Award for the Quality and the Environmental Managements.

Particularly important contribution to improving the quality infrastructure in the Republic is given by the Annual Conference on the Quality Management System in Montenegro. The papers from such Conference are to be published in the Journal called *The Quality*. The Conference gathers the representatives from all companies that deal with the quality, and it should be popularized. The active participation in such Conference and in conferences on the quality and environmental protection is a chance to express facts about the status of the quality, as well as to promote new approaches and new (young) individuals to be engaged in the profession.

3.7. National Quality Award

The basic goal of the Quality Award is the quality infrastructure improvement, whereas by means of the following:

- companies' performance improvement;
- improvement of ambient preconditions for the development of a favorable climate and culture of the quality;
- establishing the system of comparing with the best ones in the field, which represents the generator of the overall improvement of all quality aspects.

All developed countries have established their respective national awards for the quality. The most famous awards for the quality are Deming Award in Japan, Baldrige Award in America and the European Quality Award.

Japanese Quality Award was established in 1951 (when Japan was under sanctions) and the American National Award was established in 1987. Both were established by the laws, and their empirical aspects are interesting for this Strategy. The European Quality Award (EQA) was established in 1991 within the European Foundation for the Quality management (EFQM).

EQA was established with the aim to award organizations that reach the world class quality. The right to participate in the competition for the European Quality Award is vested in the organizations from the European countries.

The Award, together with the requirements and criteria it prescribes and that are evaluated, is particularly important for us since the National Quality Award of Montenegro should be consistent with it.

This Strategy refers to the establishment of the National Quality Award of Montenegro, which would be consistent to the European one in all aspects.

For the purpose of establishing the Quality Award, a feasibility study should be completed and the proposal for a normative document to govern its modeling on large organizations, small organizations, affiliates, public services and alike. This should be finished in the first year as of approving the Strategy.

3.8. Other clubs, organizations and associations

Generally, all organizations, clubs and associations in Montenegro have the task to spread the knowledge of the quality, new approaches to management through the quality management system and the requirements of the standards under ISO 9000 series, as well as of the new approach to the environmental management as per the standards under ISO 14000 series. The tasks are possible to be completed through seminars and courses, workshops and congresses, forums and round tables, as well as via cooperation with the relevant organizations from the European countries.

As for spreading the knowledge of the quality system improvement, particular importance belongs to the associations such as:

- *the Chamber of Engineers of Montenegro;*
- *The Association of Physicians of Montenegro and the Chamber of Physicians of Montenegro;*
- *The Association of University Professors;*
- *The Alliance of Engineers and Technicians of Montenegro; and*
- *The Society of Young Ecologists, and alike.*

3.9. The Quality Club

More than 100 organizations have already been granted Conformity Certificates corroborating the conformity of their operations with the requirements prescribed by the international standards, and several organizations are close to get them. For the purpose of increasing this number and in the sense of linking the organizations that are holders of the certificate, already expressed needs to establish the Quality Club in Montenegro should be met.

The Quality Club, the members of which would be the organizations-holders of the certificates and the organizations that are preparing to get them would have the basic task to increase the number

of organizations-holders of the Certificate, to exchange the experience and to reach mutual linkage.

3.10. Media and the Quality Infrastructure

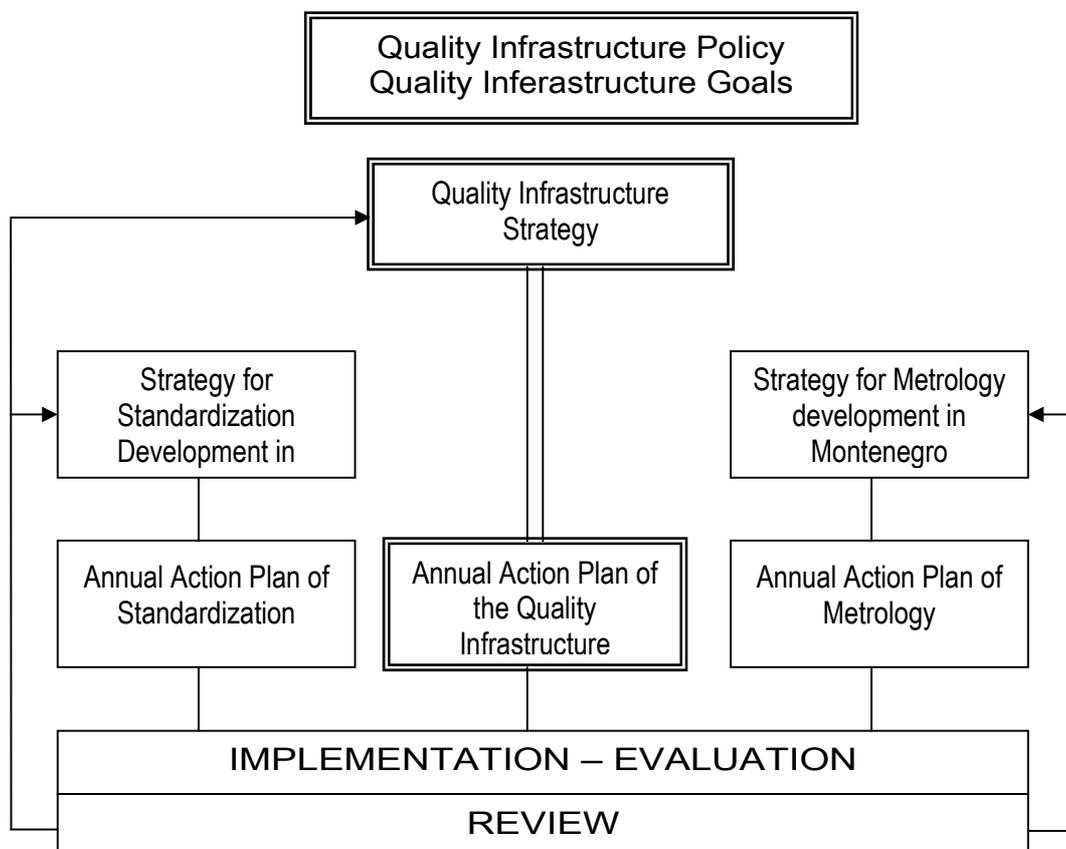
The role of mass media, illustrated in Chapter 2.10.4., which relates to mass education of the population, refers particularly to RTCG as a public service. Therefore, the obligation of the Quality Board and of the RTCG is to define proposals for short- and long-term needs by their annual programs, along with media presentation of themes and information referring to the field of the quality system, environmental management and to other fields of the quality infrastructure.

It should be highlighted that the role of public information service in spreading the relevant knowledge and understanding, and the quality movement and environmental protection accordingly, cannot be compensated by anything else.

4. STRATEGY IMPLEMENTATION PROGRAM

4.1 Coordination and management Structure

The basic relations among the function of **the quality policy, strategy, annual programs and implementation** are given in the following chart.



Annual programs for (action plans of) the quality infrastructure improvement are developed based on the strategic commitments and per program holders, and they are approved by the Government along with the progress reports for a previous year.

The basic structure of the Program of the Government of the Republic of Montenegro for the quality is composed of: **Policy and Goals, Strategy for Improving the Quality Infrastructure, Annual Programs (Action Plans), the quality infrastructure improvement and implementation activities.**

This Strategy generates two strategies more:

- 1) Standardization Development Strategy of Montenegro,
- 2) Metrology Development Strategy of Montenegro.

The said two Strategies, as well as the action plans that emerge therefrom, are considered separately.

Coordination and management of the activities aimed at the implementation of the Strategy for Improving the Quality Infrastructure in Montenegro is conducted by the following structure:

- *Quality Program Board of the Government of the Republic of Montenegro (the Quality Board is nominated and appointed by the Government of RM)*
- *Ministry for Economic Development, and*
- *Director of the Quality Program Board of the Government of RM and the Board Sector.*

The Program Board and the Program Director act within the framework of the defined competences and in cooperation with the Ministry for Economic Development under the directions of which they function.

The Program Board and the Program Director work according to the defined assignments and authorities contained in the Decision on the Establishment and the Composition of the Quality Program Board of the Government of the Republic of Montenegro ("Official Gazette of RM", No. 46/03).

Quality Program of the Government of the Republic of Montenegro is a virtual organization that is structured on the activities defined by this Strategy and the Annual Quality Program of the Government of RM.

Quality Program Board of the Government of the Republic of Montenegro can perform its role if its members, i.e. the representatives from ministries, government institutions, public companies and alike, participate actively in the organizations. That means that the **quality boards composed of the quality management representatives should be established in all ministries, secretariats and directorates** and that they should be a part of the management structure for the quality system improvement in Montenegro.

4.2 Basic System Measures for the Strategy Implementation

The Strategy for Improving the Quality Infrastructure is implemented via annual improvement programs, where basic activities are specified together with the deadlines and the task holders therefore. A number of system measures are listed here, which measures are to ensure the success of other activities. They are given in sequence and per fields of actions, and not by their importance:

- 1) For the purpose of the active involvement of Montenegro in the European integration structures, it is necessary to have the quality infrastructure institution, such as the Institute for Standardization of Montenegro, the Bureau of Metrology and Accreditation Board of Montenegro, established according to the international (ISO) and European (EN) standards.
- 2) It is required that the ministries of the Government of the Republic of Montenegro develop the records of national standards, technical instructions, regulations and laws according to which they carry out their duties and inspection activities, and to compare them with the European directives and standards in force. Based on such developed records, action plans should be detailed for the implementation of the agreements entered into;
- 3) The Government of the Republic of Montenegro will encourage, through its programs, the quality infrastructure system improvement via the permanent education within the Quality School. The Quality School should train as more employees as possible, and particularly important is to train directors and managers in public administration, directors and employees in tourism industry, as well as managers and employees being of faculty and two-year post secondary educational background and employed with public companies;
- 4) It is of particular importance for Montenegro that the quality system improvement is pursued within the tourism based companies and agencies, the Montenegrin Railways Company, airports and bus stations. Therefore, it is necessary to make the line ministries both of Tourism and of Transportation, Maritime Affairs and Telecommunications to establish their respective quality boards through which they will support and coordinate the initiatives launched by companies and for the quality system improvement;
- 5) The Government of the Republic of Montenegro will meet its obligations to improve the quality system (referred to in the Attitudes to the Quality Policy of Montenegro), and it will condition its funds intended for companies and institutions on their commitment to make efforts in the quality system improvement;
- 6) The Government will, within the framework of its competences, provide incentive plans by its economic policy instruments via covering a portion of expenses incurred by both the organizations dealing with the quality system improvement and the obtaining the certificates;
- 7) The Government of the Republic of Montenegro will encourage and support the work for the quality management system improvement of laboratories that deal with testing products, in order to make the network of laboratories efficient;
- 8) The Government of the Republic of Montenegro will, within the framework of its policy and international cooperation in the fields of science and economy, whereas with the aim to create the precondition for mutual recognition of conformity with the regional (European) and international standards, encourage the cooperation with the European countries in the fields of the quality system.
- 9) The Government of the Republic of Montenegro will proclaim, upon the initiative by the Ministry of Tourism and Environmental Protection and upon the proposal by the Quality Board, by separate technical instructions, the application of the standards under both ISO

14000 and ISO 9000 series as mandatory for all organizations that perform public functions, as well as for the organizations (companies and institutions) dealing with tourism and for all potential environment polluters.

4.3. Expert teams for the Strategy implementation

It is necessary to involve a huge number of employed persons from all organizations in the implementation of the Strategy for Improving the Quality Infrastructure in Montenegro who deal with the matter, but also a significant number of experts that will assist them as experts. If we start from the fact that, twelve years ago, there were only two or three the field related experts and that there are now more than a hundred of experts that have been trained through seminars and practices, we face the fact that there is a basis for successful implementation of the Strategy at all levels. In addition to that, it is implied that the Quality School and the international cooperation will train new experts for consulting and assessing activities intended for the quality and for environmental management systems.

As for the implementation of the Strategy, we count on the cooperation, engagement and transfer of knowledge of famous and internationally recognized consultants from Belgrade, Novi Sad and Kragujevac, as well as on the established cooperation with and assistance by experts from France. The commitment to establish cooperation with Germany, Italy, Greece, Slovenia and other countries will contribute, via exchange of experience and experts, to further qualifications of national human resources. The Quality School is a favorable ground therefore, which would be advanced further through such cooperation in order to reach its diplomas recognition. It is particularly important that such method provide advanced training for the national experts that will do their regular (former) duties by applying new approach to the quality system.

4.4. Funding the Strategy Implementation

The quality infrastructure improvement is considered as non-investment process, which could produce important results with less funds and more engagement by human resources. This primarily relates to the quality management system and to IT service and information management. However, the environmental management requires funds in addition to human resources' efforts and, in certain cases, the change of technology solutions for processes or constructive solutions to products. The same refers to the food safety management (HACCP) and occupational health and safety management system (OHSAS).

There are several sources from which the funds can be allocated for covering expenses incurred by the Strategy implementation:

- a) organizations (companies and institutions) will allocate funds under their budgets, for the processes of the quality infrastructure improvement and, separately, for environmental management;
- b) the Government of the Republic of Montenegro will fund, by continuing its former approach, the processes of improving the quality management system from the separate budget item and, primarily, the trainings for the QMS and EMS engineers and managers, as well as the processes for advancing both the laboratories, institutes and companies over which the Government has control and some tourism based activates;

- c) one of the important, if not crucial, source of funds is the cooperation with the European Union through IPA Program, i.e. through programs intended for the quality. It is possible to fund the European expert assistance, the training in the quality, the equipment for laboratories and the purchase of information technology for the purposes of the quality and environmental management through those programs;
- d) the Ministry of Education and Science will fund, from the fund for science, those concrete scientific projects relevant for the quality and environmental management systems. The fund will co-finance the scientific and expert gatherings in Montenegro, covering all fields;

4.5. Strategy Review

The Strategy for the Quality Management of Montenegro, which was approved by the Government of the RM, is starting to be a working document of all ministries and companies to which it relates.

The Strategy is implemented through annual programs for (action plans of) establishing the quality infrastructure management.

The implementation of the program and the analysis of its implementation serve as the annual review of the Strategy. Based on such review, decisions on updating, supplementing, altering or even drafting a new strategy are taken.

ADDENDUM

BASIC CHARACTERISTICS OF THE QUALITY INFRASTRUCTURE STATUS IN MONTENEGRO

Former activates for establishing the quality infrastructure in Montenegro

Several-decade long business operations in non-market environment and the export to East European and undeveloped countries caused our products have been observed as those of both insufficient quality and low prices. In such situation, the quality management system was neither a condition to survive within the market nor a factor for any accession or integration.

The Quality program of Montenegro was conceived in 1992 for the first time, with the basic tasks that have been supplemented since then, such as:

- assistance to organizations for the quality management system improvement (consulting and/or training);
- initiation of the quality improvement in new areas of the application thereof and particularly in public companies and companies engaged in the priority development areas;
- training for employees, through workshops, seminars and forums, as well as through other forms of permanent instructions;
- participation in the team work for drafting and approving new standards of both the quality and the environmental and occupational health and safety and food safety managements;
- training for interpreting/transposing and implementing the new standards of the quality, through seminars, courses and the Quality School;
- the Quality School:
 - the school for the QMS engineers,
 - the school for the QMS managers,
 - the school for EMS engineers,
 - the school for EMS managers,
 - the school for OHSAS managers and engineers,
 - the school for HACCP managers and engineers.

The first Strategy for the Quality Management of Montenegro was approved late in 1994, entailing its innovations in 1999 and in 2003. The Strategy has been implemented through *programs for the introduction / improvement of the quality management system* that the Government of the Republic of Montenegro approves each year and the progress of which is analyzed.

The implementation of the Strategy for the Quality Improvement in Montenegro can be presented briefly on the example of the number of certified organizations, as follows:

- some 100 companies/institutions have been certified,
- some 150 QMS and EMS engineers and managers have been trained and qualified, and several hundred of persons have participated in seminars and

professional forums that were organized within the Program framework. The seminars and forums were organized and held in all towns of Montenegro and in all companies that expressed a need therefore.

Previous years of the implementation of the Strategy and of the Program for the Introduction of the Quality Management System in Montenegro have resulted in the following:

- the institutional frameworks were established in previous years, within which the processes of the quality management system improvement have been developed, by composing the Quality Advisory Board of the Government (the Quality Board of the Government of the Republic of Montenegro later). Initially, the Agency of Montenegro for the Economy Restructuring and Foreign Investments was in charge of coordinating such processes and thereafter, and since 2005, the Ministry of Economy and, as of September 2006, the Ministry for Economic Development. The Center for the Quality was established with the University, and the Quality School has been functioning as well;
- the process of advancing and training and the Quality School should be the basis for forming a critical mass of human resources in the Republic entailing the awareness of the need, necessity and importance of the QMS for the accession to and the integration into the European markets, education and communication flows;
- expert teams were trained - however an insufficient number of them - that are of adequate know-how required by the quality management system and that can transfer such knowledge to companies and institutions that are starting to establish, i.e. to improve the quality management system.

In addition to the positive results reached in the previous period, which refer mainly to the industry, the quality management system has been insufficiently grounded in the public companies and, particularly, in the communal companies in the Republic, as well as in tourism and service based companies, banks, health and education based services and public authorities. The results reached and the experience accrued by companies refer to the necessity to transform the quality management system into the process of improvement and popularization that should be integrated into all economic and non-economic entities.

Institutions for the quality infrastructure

The role of the joint institutions of the former State Union in the development of the quality infrastructure is of huge importance particularly when we take into consideration that international recognition processes were done at that level, as well as that membership of international associations and the development policy and strategy creation were reached. The function of those institutions should have encouraged the quality infrastructure development in the members of the State Union. However, the Attitudes to the Quality Infrastructure Policy were not approved at that level, nor the Strategy for Improving the Quality Infrastructure was adopted.

In late 2005, the Parliament of the S&M approved four laws governing the quality infrastructure field, and they are as follows:

- *the Law on Standardization,*
- *the Law on Metrology,*
- *the Law on Accreditation,*
- *the Law on Technical Requirements for Products and on Assessment of Products Conformity with the Prescribed Requirements.*

These four laws, which were drafted with the assistance by the EAR, have responded to the requirements prescribed by the EU and the European institutions for the quality infrastructure, but they have to adjust to the needs and circumstances prevailing in Montenegro.

- Standardization in Montenegro

The status of standardization in Montenegro is not fitting. Standardization has actually disappeared from our companies; the standards are less applicable in those companies that used to apply them intensively twenty years ago. Small companies apply standards, whereas a few experts deal with them. On the other hand, the standards are increasingly applied in growing companies of developed countries and, in certain fields such as industry, trade and transportation, they are applied extensively. Such extensive application of standards ensures undisturbed movement of goods and services in international markets.

The Law on Standardization was adopted in 2005 as a law of Serbia and Montenegro, and it was approved by the European experts engaged under CARDS (S&M Project – Quality).

During establishing the institutions therefore, Montenegro was recognized internationally as an independent state and, therefore, the new institutional solutions emerged.

The economy and other activities are particularly interested in the work of such institutions for standardization, since the standards and their conformity with the international ones play an important role in the national and international exchange of goods. The existence of the institutions is a precondition for the accession to the European integration processes and for the WTO membership.

The Institute for Standardization was delegated the competences to enforce it within the territory of Serbia and Montenegro, and such competences relate to:

- *Yugoslav, that is to Serbian and Montenegrin standards, technical instructions, the quality principles and technical recommendations for products, goods and services;*
- *Cooperation with international and national organizations for standardization;*
- *Ensuring information dissemination of the standardization related matters;*

The institutions for standardization may be organized in two manners:

- 1) the majority of national bureaus of standardization in the European countries has been established as the economy or consumer associations, scientific institutes and government agencies.

- 2) as a government institutions under the line ministry authority, which ensures bureaucratic safety but decreases a possibility to engage the expert public in disseminating the spirit and system of standardization.

The association of stakeholders is a better approach, which has been conformed to the European rules and is recommended to Montenegro. This approach has been provided for by the said Law.

- Metrology System of Montenegro

The system of measures and measurement units has been defined under the Law on Metrology. The Bureau of Metrology is a public institution the task of which is to apply and consistently enforce the Law on Metrology.

The scope of the Bureau's work, which has been governed by the Law, is mainly reduced to the following:

- *developing, maintaining and using national measurement standards and samples of reference materials;*
- *examining and controlling and testing the materials;*
- *supervising the enforcement of the Law on Measurement Units and Measuring Instruments;*
- *controlling the performance of the public functions by the organizations for examining national measurement standards, samples of reference materials and measuring instruments, all for the purpose of providing the single application of the established system of measurement units and measuring instruments within the territory of the former FR Yugoslavia;*
- *upon a request by the producer, giving instructions, as well as prescribing inception, periodic and extraordinary verification of national and foreign measures and measuring instrument.*

The establishment of such single metrology system gives a significant contribution to the quality system development and to the creation of technical preconditions necessary for the access to the international market of goods and services, i.e. for the integration into the international labor division.

The basic impediment to the metrology system is its rare field application.

- The Conformity Assessment System with the Influence on the Circumstance Prevailing in Montenegro

The conformity assessment system implies the structure composed of the organizations that produce goods or deliver services and which are holders of the certificates; the organizations giving the certificates, i.e. the organizations or persons that have been accredited; the accredited laboratories; control organizations; the bodies empowered to perform technical supervisions, and the Accreditation Body of Montenegro that has been empowered for accrediting and that is the top of the structure pyramid.

Accreditation system is the arrangement that follows its own accreditation rules of procedure and management.

The former joint accreditation body (JUAT) was in function within the Federal Ministry for Development, Science and Environmental Protection, i.e. within the Ministry for National Economic Relations, as a public administration authority, i.e. as a bureaucratic composition that was greatly dependant on ministries, government commissions and the Government itself. On the other hand, national accreditation bodies of the European countries are formed as associations, public agencies or public institutions (e.g. in Great Britain, France, Sweden, Italy) and, thereby, they meet the requirements to be independent, competent and autonomous, which is required under the international standards and instructions (ISO/IEC 17011) and which is a precondition for mutual recognition.

If an accreditation body has not been established under the international requirements, then all other activities (accreditations) it undertakes are not in conformity with such principles, so the organizations that are being certified or the product and services that are being attested can be led to unenviable position of being unrecognized.

The Laws transposed from the level of the State Union, as well as their accompanying regulations governing the field of accreditation and conformity assessment, have been harmonized with the international norms.

Such organizational structure of accreditation and certification in Montenegro will not be an impediment to integrating our organizations into the international accreditation system.

The Role of the Associations of Standardization and Quality in the Process of the Quality System Improvement

There is the Association of Standardization and Quality established in Montenegro as a non-profit, non-governmental, non-party, interest organization of experts for the standardization and the quality management processes.

The Association of Standardization and Quality of Montenegro has the assignment to popularize the quality and the standardization movements through gathering the professional public, as well as through common programs, human resources training, arrangement of workshops and seminars.

The Association enlarges the international cooperation, encourages publishing activities, foster scientific and professional thoughts development, and it should function, via the associations of consumers, as the corrective factor for all events capable of improving the quality system status. There are endeavors to make the Association organized in the same manner as similar associations in the European countries have been organized, and to be recognized by the European Organization for the Quality (EOQ).

National Program for the Quality

Some ten years ago, the Fund for the Quality Culture and Excellence that was a holder of the award, and the members of FQCE were companies from Serbia and Montenegro. The representatives from those companies and institutions composed the management of the Fund.

A few companies from Montenegro participated actively in the competition for the Award. The participation in the competition for the Quality Award and in the conformity assessment processes have motivated collectives and have had positive impacts on the quality system improvement. Efforts should be made to increase the number of companies that will participate in any competition for the Quality Award.

The former holders of the "Quality Oscar" Award is Zitopromet, Spuz (Corn Trade Company, Spuz)

The former holders of the "Quality Oscar" Plaque are:

- Plantaze 13. jul, Podgorica (13th July Plantations, Podgorica) ,
- Zitopromet A.D., Spuz (Corn Trade Stock Company, Spuz),
- Zetatrans, Podgorica (Zeta Transportation, Podgorica),
- BMB Skola za obuku pomoraca, Bar (Merchant Marine School, Bar)

The impact of the Association of Consumers on the Quality Infrastructure Development

The impact of the Association of Consumers on the quality infrastructure has not been notable so far, which is inconsistent with the European trends. The European documents concerning the quality infrastructure indicate the important, and frequently the crucial, role of any association of consumers in the quality infrastructure improvement. The associations of consumers are assessors of the quality infrastructure outcomes and they are initiators of further improvements.

The Impact of the Chamber of Economy on the Quality Infrastructure Development

The Chamber of Economy of Montenegro has had an important role in the quality infrastructure development in Montenegro since the very beginning of the process. Such influence has been achieved through the functions of the Quality Board of the Chamber of Economy and through workshops, promotions and information forums that the Chamber has arranged so far. The representatives from the Chamber of Economy of Montenegro were active in the work of the competent quality boards of the Chamber of Economy of Yugoslavia, in the Jury for the National Quality Award and in other bodies and associations.