

STUDY 6 REPORT

European Institute of Romania

**THE IMPACT OF TRANSPOSING EU QUALITY SYSTEMS ON  
SELECTED ROMANIAN INDUSTRIAL SECTORS.**

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Abbreviations of Romanian regulations' types involved in this study are the following: L – Law, GO – Government Ordinance, EGO – Emergency Government Ordinance, GD – Government Decision, OM – Order of Minister

## CONTRIBUTIONS

This report was written by Nicolae Dragulanescu and Lucian Serban Broche with the active support of Bernard Vaucelle and contributions from Aurel Rizescu. The Introduction, Executive Summary and much of the background material was prepared by Nicolae Dragulanescu. Much of the analysis and specific proposals were developed by Lucian Serban Broche. The general policy recommendations were formulated by both main authors.

The present report excludes much of the basic information provided by the authors in response to their terms of reference since that information is available from established European and EU sources and because of limits to publication length.

## ACKNOWLEDGEMENT

Our team is grateful for all information, comments and recommendations it received from different stakeholders, including representatives of MIR, ANPC, BRML, RENAR, ASRO, CCIR, the Delegation of the European Commission in in Romania. The authors assume full responsibility for data and views expressed within this study.

## **Introduction**

The major objective of the Study no.6 is to assess the impact of transposing EU quality system (standards, norms, technical regulations) upon key Romanian industrial activities, both at macroeconomic and microeconomic levels.

Study no.6 is one of 14 different studies whose topics have been identified by the relevant Romanian authorities as being of priority in the negotiation process. All these studies are components of PHARE Sub-Project RO 9907-02-01 “PAIS – Pre-Accession Impact Studies”. Its overall objective is to help Romania accelerate its preparation for Accession into the EU by strengthening the institutional and administrative capacity to manage the adoption of the Acquis Communautaire, as well as to adjust its decision making process and policies to European standards.

To meet this objective, this sub-project will assist the Romanian authorities in the analysis of the likely impact on Romania of adopting legislation in specific sectors and provide recommendations, based on this analysis, on the optimal administrative procedures, institutional arrangements and policy positions for Romania to adopt in the negotiation of its accession to the Union.

In relation to its specific topics, TOR and “Implementation procedure” note, this Final Report of the Study no.6 provides:

1. A short consideration of EU quality system aspects related to the Acquis Communautaire adoption and implementation
2. A concise and authoritative overview of the current situation in Romania
3. Main issues which have yet to be resolved in relation to Romania EU accession (in terms of Romanian policy formulation, related legislative coverage and provisions for the implementation of that legislation)
4. Basic recommendations (supported by identified elements of the preceding analysis) to the Romanian governmental organizations involved in the negotiation of Romania’s integration within the European Union.

In order to investigate the impact of transposing the EU quality system in Romania from different perspectives, the research team realised 3 questionnaire-based surveys on following target groups:

1. Group 1: about 600 ISO 9000 - certified companies
2. Group 2: 32 education/ training and consultancy bodies involved in quality management (QM)
3. Group 3: 20 certification bodies for quality systems

In addition, in order to collect relevant data, the research team organized two Interest Group meetings with representatives of some relevant governmental and non-governmental organizations involved in quality infrastructure (corresponding to the field of New Approach directives). These representatives were asked to provide a SWOT (Strengths-Weaknesses-Opportunities-Threats) analysis of the impact of European quality system on their own field of activity.

Feedback and research findings obtained from Interest Groups meetings participants in these SWOT analyses are presented in Chapter 3.

## Executive summary

European Directives, harmonised standards, accreditation, conformity assessment and third party certification (production system, products, services), testing and metrology are the basic tools of the free circulation of goods and products throughout the wide European market. These tools have been conceived to be put in force and used according to liberal economic policy, open to competition and involving all the economic and social partners, including the Public authorities which have an important role to play as a “regulator”.

The transposition or the creation of these tools in a country does not mean that the actors of this country are able to make the best use of them immediately. To reach an optimum efficiency of their practice a collective skill is needed, a common culture must be shared. The setting up and the development of Quality systems (of a Quality policy, well understood at all levels) are concrete and internationally recognised approaches which accelerate the integration of good practice and create this new common culture, which is vital for efficiency and competitiveness.

### 1. Essential concepts and principles of the EU quality system

#### 1.1-Two basic concepts: “quality (management) system” and “quality policy”

An organization implements usually a management system in order “to establish policy and objectives as well as in order to achieve these objectives”. One kind of such system is the quality (management) system, i.e. “a management system intended to direct and control an organization with regard to its permanent progress and to the satisfaction of its clients. These definitions (introduced at microeconomic level by an European standard EN/ISO 9000-2000) may be extended at macroeconomic level. Thus the European/national quality policy may be defined as <overall intentions and direction of the European Community (or of a national economy/ industry or country) related to quality, as formally expressed by European Commission (or by its Government)>.

#### 1.2-The European Quality House

In order to stress its potential, the EC internal market has created – mainly between years 1985-2000 – a homogenous, transparent and credible technical environment within which the public authorities, economic operators and users/consumers can have enough reciprocal confidence. This confidence is based on technical competence on the part of the components of what is called “the European Quality House” [EUROPEAN COMMISSION, DG III INDUSTRY - Reports of “Quality Series – The European Quality Promotion Policy”, Brussels, 1995-1998 and EUROPEAN ORGANIZATION FOR QUALITY] (Fig. 1.1.)

The European Quality House is composed of the different public and private structures – at European and national levels - which are necessary to demonstrate conformity, both in order to assure free circulation of products/ services and to increase and strengthen the competitiveness of the European economy.

The five pillars are essential for the structure of this house. They are:

-Four institutional pillars: Standardization, Testing & Certification, Metrology and Accreditation

-One managerial pillar: Quality Management (in all involved, public and private organizations and, especially, in companies)

Until 1985, harmonization took place through old style directives (Old Approach Directives), which were often narrow in scope, contained detailed mandatory technical requirements and were often subject to amendments due to technical progress.

After 1985, all New Approach (NA) Directives are, as opposed to the Old Approach Directives, total harmonization directives which means that the co-existence of national regulations covering the same public interests is prohibited or, where they still exist, inapplicable.

In 1989, the New Approach was complemented by the Global Approach (GA) to testing and certification; it is representing now a comprehensive EU policy on conformity assessment. Thanks to certification and accreditation – generating confidence in products/ services and their providers – “the New Approach and Global Approach promote a homogenous, transparent and credible technical environment within which public authorities, economic operators and consumers can have confidence. In other words, they describe an environment where business excellence and European competitiveness can be developed and increased”. [EUROPEAN COMMISSION, DG III INDUSTRY - Reports of “Quality Series – The European Quality Promotion Policy”, Brussels, 1995-1998]

1.3-Some consideration must be made to analyze and clarify the impact of transposing the EU quality system in Romania

1-According to the European Quality House, like a house that cannot have a roof without foundation and sustaining pillars, within a national quality system, the quality policy could not be implemented without relevant legislative and institutional frameworks.

2. The regulated area is the area covering the products which, in order to be placed (or put into service) on the Community market, for the first time, have to comply with specific directives or technical regulations. It is related to the following issues (according to Council Resolution of 21 December 1989 on the Global Conformity Assessment, OJ 90/C10/01):

- Modules and Conformity Assessment procedures of the Global Approach
- CE marking
- Notified Bodies
- Market Surveillance
- Mutual Recognition Agreements (MRA)
- European Conformity Assessment Agreements (ECAA)
- Good Laboratory Practices (GLP)

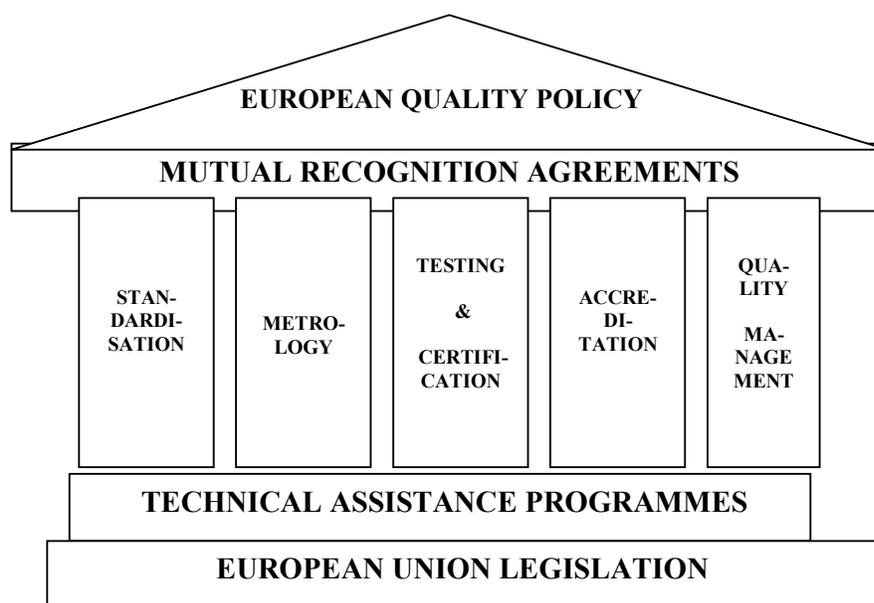
Consequently, the NA and GA directives apply not only to new products manufactured in the EU Member States, but also to new, as well as used and second-hand products imported from third countries.

3. The voluntary (or not-regulated) area is the area covering the products which, in order to be placed (or put into service) on the Community market, for the first time, do not have to comply with specific directives or technical regulations. But to be recognized and better accepted on the European and international market places they have to comply with a lot of voluntary standards: product/service standards, test method standards, process standards, terminology/vocabulary standards etc

4. All bodies performing tests, calibrations, products certifications, quality systems certifications, personnel certifications, environment management systems certifications, as well as inspection activities are called the infrastructure for conformity assessment. If, ~~to~~ these bodies are joined to standardization and metrology bodies as well as consultancy and education & training bodies dedicated to quality management, they are forming together the quality infrastructure of a country.

5. Each test laboratory, calibration laboratory, certification body or inspection body that is nominated by a national authority to perform conformity assessment in the regulated area is called notified body.

**Fig. 1.1. - The European Quality House**



(Source: EUROPEAN COMMISSION, DG III INDUSTRY – Reports of “Quality Series – The European Quality Promotion Policy”, Brussels, 1995-1998)

COMPONENTS OF EUROPEAN QUALITY HOUSE

Table

1.1.

COMPONENTS / ACTIONS	ELEMENTS / EXAMPLES	REGULATORY APPROACH	VOLUNTARY APPROACH
1.LEGISLATIVE FRAMEWORK	-Directives: Old Approach (OA), New Approach (NA) and Global Approach (GA) -Horizontal Issues: CE marking, product liability, product safety, market surveillance (in the field of NA directives), notified bodies, etc.	X (for regulated areas)	-
2.EC TECHNICAL ASSISTANCE TO ROMANIA	-PRAQ I, PRAQ II, PRAQ III -PHARE (TTQM, etc.)	- -	- -
3.QUALITY PILLARS	-Standardization -Metrology -Testing, Certification and Inspection -Accreditation (EN 45000 standards) -Quality Management (EN ISO 9000 and EN ISO 14000 standards)	- X X X -	X X X X
4.MUTUAL RECOGNITION	-Mutual Recognition Agreements (MRA) -European Conformity Assessment Agreements (ECAA)	(for regulated areas)	- - -

6. The European Conformity Assessment Agreement (ECAA) is an agreement concluded between the European Community and each of the associated countries – like Romania – in order to provide mutual recognition of the results of conformity assessments.

1.4 -Some Principles should be noted:

1. Within the Copenhagen criteria, "the existence of a functioning market economy, as well as the capacity to cope with competitive pressure and market forces within the European Union" and "the adherence to the aims of political, economic and monetary union" are the most relevant requirements for all candidate States [COMMISSION OF THE EUROPEAN COMMUNITIES - 2001 Regular Report on Romania's Progress towards Accession, Brussels, SEC (2001) 1753, 13.11.2001].

2. Romania's ability to assume the obligations of membership within Chapter 1 (Free movement of goods) of *Acquis Communautaire* – i.e. <the legal and institutional frameworks by means of which the European Union implements its policies and objectives> – includes the promotion of competitiveness through market-driven enterprise restructuring as well as the implementation of New Approach directives on the basis of framework legislation, the alignment of traditional technical legislation, the reinforcement of related administrative capacity into line with *Acquis Communautaire* and the establishment of an effective market surveillance system.

3. Promotion/ strengthening of competitiveness is the main goal of European industrial policy. Today's concept of industrial policy includes all (public and private) policies and instruments having impacts on (public and private) companies and industries. According to a definition [EUROPEAN COMMISSION (1994)], the industrial policy refers to <the effective and coherent implementation of all policies impinging on the structural adjustment of industry with a view to promoting competitiveness>. Industrial policy interacts with other macroeconomic policies like, for example, SME, R&D and innovation, foreign investments, trade, competition, education, social and regional policies, etc. and includes macroeconomic policies like quality promotion, consumer protection/ education, standardisation policies, etc. According to the Commission vision, European development should rely both on competitiveness and social & economic cohesion. The Commission is aware that competitiveness based on quality enables the profitability of its providers (under similar cost conditions). Within the EU countries, the responsibility for promoting successful industrial policies is shared by the public authorities and the private sector within a lot of so-called "public-private partnerships" involving especially a very clear division of responsibilities between all partners. It is recognized that political commitment and leading by example are essential for raising the general awareness on quality matters

4. EU quality system matters are also included within Chapters 3, 15, 16, 22 and 23 of *Acquis Communautaire*. Thus, it is essential to be aware that quality management is a transversal function involving an integrative systemic approach, in order to avoid possible counter-productive consequences induced by the segmentation (especially by the lack of efficient and effective communication and of co-operation of all involved actors).

5. The free movement of goods signifies not only the free movement of European goods within Romania, but also the free movement of Romanian goods – when Romania will become a Member State of the Union – within Member States of European Union. Consecutively, in order to circulate freely within EU, the Romanian goods have to be (or to become) competitive and their conformity with reference standards has to be assessed adequately.

6. As consumers are central to the market economy, an effective consumer policy – which grants consumers rights and protects their safety, health and economic interests – is a strong guarantee that the market economy is functioning efficiently and fairly. In order to avoid exploitation of consumers – as potential victims of unfairness and non-quality – liberalised market needs effective legislation and institutional frameworks. To this aim, developing long-term actions in the area of consumer education is a basic priority of Commission.

## 2. Key findings

The implementation and the permanent improvement of transposing the EU quality system (standards, norms and technical regulations), concern at the same time, all economic actors, public and private, in their own field of responsibility. Depending of the information received, of the level of knowledge acquired, of the available resources, each enterprise, each private entity having a role to play in this implementation, each public authority is directly engaged in the success – or the delay and the failure-, not only on the real transposing of these “tools”, but mainly in their best efficient practice.

This means the necessity of a collective, coherent and planned management organised at-and with- all levels of responsibility: national, regional, local, individual. A general mobilisation is needed through all dedicated networks and entities private and public.

As regards new “style” to conduct an economic, commercial and industrial policy it is clear that the well-adapted involvement of the public authorities is crucial. Each Ministry has a role to play, with a common vision towards the same objectives. To be effective a “prime mover” is needed among these ministries, as it is the case in all European countries, in view to assure consistent views and actions at national, European and international levels. The Directive 83/189 (now 98/48) has set up (art. 5) a permanent committee, composed of high civil servants from each country member in charge of standardisation policy (conformity assessment, accreditation etc.), meeting two or three times per year, in view to assist the Commission in the running of the European policy.

This is needed also to impulse and to support this “new approach” within the different Romanian networks and entities. It seems clearly that in Romania this role has to be played by the Ministry of Industry and Resources (MIR).

### Four main priorities are urgently required:

1-Transposing the regulations, directives, standards and correlated practices (accreditation, conformity assessment, testing, metrology ...). It is impossible to integrate the European Union without the total transposition of the “acquis communautaire”,

2-Creating, developing, strengthening the institutional and administrative capacity, the public and private entities, to manage the adoption of the “acquis communautaire”, able also to explain, to train up, to disseminate the information, to offer services, to collect the reactions and to take corrective measures,

3-Defining and implementing, progressively, an economical/industrial national policy with sector declinations according to the strengths, weaknesses, opportunities of each of them.

4-Implementing a national Quality policy which integrates all these actions and which is a recognised process giving , at the same time, confidence in the Romanian products/services and the signal and demonstration of a new sharing and responsible “culture”.

Discussions took place among the researchers, the experts in view to find a hierarchy, a sequence between these priorities. Some of them consider the transposition of the “acquis” as the overriding priority, some others think that no correct implementation is possible without a clear national industrial policy and that this policy is the first step, some others are convinced that there is no chance to success efficiently without changing the minds, the behaviour of all the actors by implementing a national Quality policy, strongly supported by the main authorities.

Each position is based on good reasons. None of them is sufficient alone to reach the goal. Only a well-managed combination of these four priorities is able to respond correctly to the crucial challenge faced by Romania. But the Report and its annexes reflect partially these positions and interrogations.

## **Section 1. The Current Context**

### ***1.1.Relevant country background***

The “centrally planned economy”, implemented in Romania between 1945-1989, included a centrally planned quality of products/ services based on following instruments:

I) About 12.000 mandatory state standards (State Standards - STAS)

II) Legislation and structures exclusively dedicated to “State Quality Control”

According to the former legislation, all Romanian industrial companies were State owned and compelled to adopt, since their founding, the microeconomic “Quality Control” approach (frequently understood as only “Inspection” approach) – which is still in force in most of today companies. The “Quality Assurance” approach was implemented before 1989 only in few companies, operating mainly in the nuclear, aeronautics, electronics and defence sectors. The “Total Quality Management” approach principles and practices were, until recent years, practically ignored in Romania.

III) A central State quality organization with inspecting role – IGSCCP, called “quality police” -- which inspected all goods to be exported and punished financially people of companies who didn't provide planned quality of products or services.

These features characterized the so-called “passive-repressive approach of quality“, a former State quality policy that was specific to Romania and to other centrally planned economies from Europe and Asia, during some decades. Many Romanian quality professionals now agree that this approach came in Romania and in other ex-socialist countries from USSR that, in turn, imported it - after the Second World War - from USA. (“The US approach has historically been command-and-control oriented. This might be the result of a history of political and military management as a basis for business management” [FOSTER T. – Managing Quality - An Integrative Approach (2001)]).

This situation was reflected in a negative way as well in the educational system as in creating a solid quality culture, especially regarding prevention versus detection/ correction attitudes and behaviors. In 1989 this authoritarian approach was abandoned and the “quality police” dismantled. But counterproductive heritages remained.

After 1990, like other Central and Eastern European countries, Romania was facing the great challenge of rapidly implementing and adjusting its accreditation and certification systems according to the EU Quality System as well as implementing quality standards and quality systems in its private and state owned companies. In order to cope with these objectives, between years 1990-2001, new legislation was adopted and new infrastructures were funded in the fields of standardization, certification, accreditation, metrology and consumer protection.

A transitional governmental agency – the National Commission for Standardization, Metrology and Quality (CNSMC), employing over 3000 people within six organizations and managed by a Minister State Secretary – was established in February 1990, in order to identify and develop necessary legislative and institutional changes, compatible with democracy, free market economy and EEC policies [DRAGULANESCU N. - Quality in Romania: from passive-repressive approach to Total Quality (1995)], [DRAGULANESCU Nicolae - Quality Management Challenges in Romania (2001)]. During its two-years activity, CNSMC elaborated over 20 draft Laws and Government Decisions on standardization, metrology, certification, accreditation and consumers protection (a new concern in all emerging European democracies

intending to become “capitalist countries” with “consumer societies”). These drafts attempted to start the harmonization of Romania’s legislation, standards, structures and procedures with those of European Community states. In 1991, CNSMC proposed to Romanian Government a national quality policy (proposal published in the Romanian Government Bulletin, no. 30/1991.). As “answer”, in 1992, Romanian Government dismantled CNSMC (by GO 18/92) and promulgated three basic GO: on standardization (GO 19/1992), on metrology (GO 20/1992) and on consumer protection (GO 21/1992), as well as the GD 167/1992 on national quality certification system. All GO were put in force immediately, but their approval by Romanian Parliament came only two years later (by L 11/1994).

According to these new regulations, most of national Romanian Standards SR (former STAS) became voluntary, the fundamental universal rights of consumers were officially recognized/ granted, a new government agency – the Office for Consumers Protection (the forerunner of today ANPC) and its network -- was founded and over 100 non-governmental associations for consumers protection were created within most important cities.

Thus, the Romanian Government decided in 1992 to transfer gradually most of its former quality responsibilities and to involve itself in only few quality matters, especially in standardization and certification (through IRS, the Romanian Standardization Institute, a former governmental agency), metrology (through BRML – the Romanian Office for Legal Metrology) and consumer protection (through OPC – the Consumers Protection Office). The Research and Technology Ministry (MCT) established however a quality structure dedicated mainly to the management of quality programs/ projects funded by EU (PHARE). Since 1991, the Ministry of Public Works (MLP) has subordinated the State Inspectorate for Constructions (a governmental agency that was included also, till 1991, within CNSMC). No other quality structures were initially established within other governmental agencies (including Ministry of Industry, Ministry of Transports, Ministry of Telecommunications, Ministry of Education, Ministry of Health, Ministry of Agriculture, etc.) but some structures dedicated to consumers’ protection were created within these agencies.

In addition, some dozens of quality non-governmental bodies were created, between years 1990-2002, in order to deal with certification, accreditation, education & training and consultancy in quality management.

Meanwhile, dozens of regulatory measures were promulgated in the areas of quality assurance/ certification and of consumer protection; the most important were the following:

- L 10/1995 - on constructions’ quality (and its related GD 272/94, 392/294, 393/94)
- GD 629/1996 - on products quality assurance and their certification
- GD 908/1996 establishing CIIC – the Inter-ministerial Council for Quality (managed by MCT) in order to assess/ propose quality legislation and to check the National Program on Products and Services Quality.
- GD 1073/1996 - on quality assessment, certification and surveillance for providers of national defence system, establishing some dedicated military bodies entitled OMCAS – the Military Body for Certification, Accreditation and Surveillance and CCASs – the Commissions for Certification, Accreditation and Surveillance.
- GO 38/1998 - on the accreditation activity - and GO 39/1998 - on the standardization activity - deciding the long time claimed separation of regulation, standardization, certification and accreditation functions (introduced by GD 167/1992)
- GD 166/2001 - establishing ANPC - the National Authority for Consumer Protection, as successor of OPC – the Consumer Protection Office, created in 1992
- GD 681/2001 - establishing CISPPSPC - the Inter-ministerial Committee for Products and Services Market Surveillance and Consumer Protection (managed by ANPC)

-L 37/2002 – approving GO 58/2000 which amended substantially GO 21/1992 (on consumers protection) and establishing principles of liability for defective products, according to European Directives.

The Romanian quality infrastructure currently employed in order to generate confidence in products/ services and their providers through third party certifications and accreditations is shown in Fig.2.1.

### ***1.2. Implementation in Romania of the Old/New and Global Approaches Directives***

The first step on the road to membership of the European Union for Romania is the adoption of the *Acquis communautaire*, the complex of legislation, procedures and practices that form the basis for the alignment of national regulations in all fields of Union policies. For the correct functioning of the internal market it is among other things necessary that no distortions occur, caused by differences in the technical regulations for products. Technical regulations have always been a prime object for the harmonization within the framework of the Treaty of Rome.

EU member states have harmonized their technical regulations to a large extent. Originally this was achieved by making product specific directives that describe in detail the technical specifications that the products had to comply with. This approach, now known as the Old Approach, was rather successful in a limited number of fields, such as automotive industry, chemicals, pharmaceuticals, foodstuffs and metrology. However, in the other fields progress was slow and not very successful. A different approach to technical regulations was developed in the middle of the eighties, which is not product specific and therefore less detailed. The New Approach concentrates on essential health, safety and environmental requirements of broad classes of products, such as machinery, medical products, construction materials, lifts, non-automatic weighing instruments, etc.

Full implementation of the European New Approach directives is part of the accession process in the area of the free movement of goods. The full implementation of the directives goes beyond transportation only since they are dependent for their implementation upon a functioning conformity assessment infrastructure. That infrastructure is made up of a certain number of functions, such legislation, manufacturing, Notified Bodies, testing, inspection, certification, market surveillance, standardization, accreditation and metrology that will be fulfilled by different organizations in the country, e.g. ministries, local producers, testing laboratories, certification bodies, the national organization for standardization, accreditation, metrology and other. Strengthening the performance of the different players in their new roles, as well as organizing them for their new roles is an essential element in the implementation of the European New Approach.

The implementation of conformity assessment procedures for certain categories of products is already of some importance in the period before full membership of the European Union. Once Romania has aligned its legislation in some sectors of the New Approach, it will

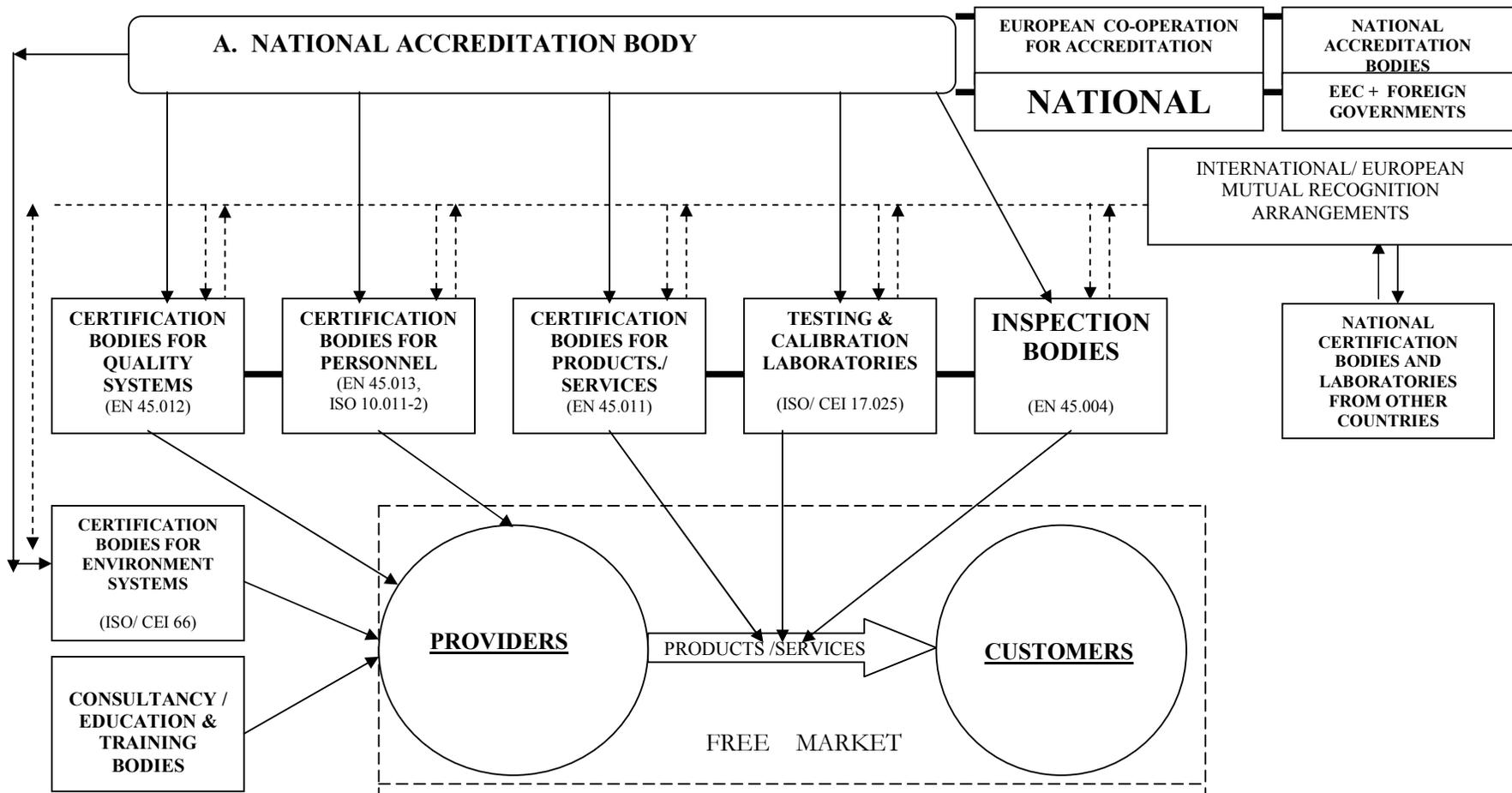


Fig. 2.1. - Generation of confidence/trust in products & services and their providers through third party certifications and accreditations

become possible to sign a trade facilitation agreement with the EU, known as the Protocol for European Conformity Assessment (PECA). This agreement allows for mutual recognition of conformity assessment of industrial products in aligned sectors and provides for mutual acceptance of industrial products that are legally placed on their market (i.e. EU internal market and the Romania market). In effect, it would already create a limited “Single Market” and by eliminating legal uncertainties concerning exports would make it easier for producers to place products on the much larger European internal market, if they are able to compete with EU manufacturers.

On an aggregate level, The Romanian Manufacturing Industry should benefit from the harmonized standards introduced through the Acquis. The take-over of the Acquis means easing the access to EU markets as it reduces significantly technical barriers. It abolishes the need for multiple certifications in different EU markets and it improves transparency and reliability in the areas of product quality from which exports should benefit as well as domestic consumers. Products will only be subject to one conformity assessment procedure through MRA (Mutual Recognition Agreements). This will in many cases reduce production costs considerably. The take-over of the Acquis is likely to play a significant role in the upgrading of technical processes and product quality by the Romanian economic operators. Hence it will make an important contribution towards achieving the longer-term developmental goal of the Romanian producers: productivity and product quality convergence.

The remainder of this section describes the elements of the conformity assessment structure in Romania relevant for the Old, New and Global Approach Directives. Conformity assessment infrastructure is still under development and this development is not going at an even pace in all respects.

Regarding the creation of the legal basis for a system of conformity assessment quite a number of activities have been undertaken.

A Law on the product conformity assessment (608/ 8 November 2001) has been approved and published in the Romanian Official Monitor. It offers the general framework for a whole set of technical regulations based on the European New Approach directives which will be developed by the different ministries and it appoints The Ministry of Industry and Resources as the competent authority to coordinate the quality infrastructure and the product conformity assessment policy. Government Decision 71/2002, which transposes the Council Decision 93/405EEC, approved its implementation Methodological Norms. They deal with the Global Approach modules for various phases of the product conformity assessment procedures, Notified Bodies, notification, rules for affixing and use of CS conformity marking, some basic principles of market surveillance and a set of sanctions.

Two other indispensable parts of the foundation of the New Approach, the transpositions of The Product Liability Directive and the General Product Safety Directive have also been dealt with. Both Directives have been transposed into Law 37/2002, approving a Government Ordinance that amended another Government ordinance on Consumer Protection (21/1992).

What is still lacking is the transposition of the Directive 98/48 laying down a procedure for the provision of information in the field of technical standards and Regulations. The transposition text of the Directive 98/48 has been drafted and is in the process of inter-ministerial approval. It will come into force by December 2002.

The Toy Directive 88/378/EEC has been fully implemented some years ago through Government Decision 710/1999 subsequently amended by Government Decision 1275/2001.

The Directives on Personal Protective Equipment and Safety of Machinery have been partly transposed in the Law on Labor Protection (90/1996) and its Methodological Norms.

The transposition text of the Low Voltage Directive, Government Decision 1337/200 has been published in the Romanian Official Monitor. This directive has become operative from January 2002 and will be soon amended by Government Decision 556/2002.

Also the Directives on Simple Pressure Vessels and Refrigeration Appliances have been transposed and have become operative in April 2002.

Directive 90/396/EEC relating to appliances burning gaseous fuel has been transposed in Government Decision 761/2001 and has come into force in August 2002.

The provisions of the Old Approach Directives, 76/767/EEC, 84/525/EEC, 84/526/EEC and 84/527/EEC have been fully transposed by the Order of the Minister of Industry and Resources No. 113/19.04.2001. However, the implementation of these Directives requires changes in the organizational structure of ISCIR, the separation of its function as notified body from those of market surveillance and inspection body. At least one-year transitional period is needed to address this problem. Explicit attention should be paid to the minimization of risks.

Government Ordinance 38/1998 on the accreditation activity has been recently approved by the Law 245/2002. Also the Government Ordinance 39/1998 on standardization activity has been approved by the LAW 355/2002. Government Ordinance 104/1999 on Metrological activity is on Parliament agenda and will be approved during the year 2002.

National bodies for standardisation (ASRO), accreditation (RENAR), metrology (BRLM), market surveillance (ANPC) are already operational.

Provisions of the Government Ordinance 562/1999 on the National Research, Development and Innovation Plan, including CALIST and INFRAS programmes regarding enhancement of quality infrastructures, have been implemented.

Of 154 Directives of the Acquis Communautaire, Romania adopted 9 Directives in 2000, 55 Directives in 2001, about 70 Directives are planned to be adopted in 2002; other 20 Directives will be adopted later.

Although the process of transposition of the European product legislation is an ongoing activity and some parts have already been put into laws and ordinances accepted by the government and Parliament, there is still a need for a review of work done and in preparation.

The main actual concern of the Ministry of Industry and Resources – acting as coordinating authority for the quality infrastructure and product conformity assessment policy – is related to internal consistency of its work, the conformity with the European rules and the correct use of terminology. The opportunity to scrutinize and review the legal work in the field has been offered by the PHARE Twinning Project RO99ECO1, Building Government Institutions for EU Technical Regulations in Romania (2001-2002).

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## **Section 2. An analysis of relevant Romanian public institutions and policies.**

The conformity assessment infrastructure is formed by a number of institutions that perform specific functions in the field of accreditation, standardization, certification, testing and inspection. These functions serve the needs of industries in establishing the compliance of products in all respects. Some aspects of the conformity assessment are already quite well take care for. essential requirements and other technical regulations. Conformity assessment infrastructure is under development and this development is not going at an even path

### **CENTRAL GOVERNMENT**

The **MINISTRY OF INDUSTRY AND RESOURCES (MIR)** is the national co-ordinating authority for the development of the quality infrastructure and the product conformity assessment. MIR made substantial progress in the field with aid of the PHARE Twinning Project RO99EC01(2001-2002). Practically, this Twinning Project established the core of a new Romanian system for technical regulations and initiated the evolution of the quality infrastructure. The project has achieved the following results:

a. setting up the frame for the development of ministerial structures and the related institutional infrastructure

b. establishment within MIR of an adequate co-ordinating structure supported by an information system. The coordinating structure has as main responsibilities and tasks:

- To co-ordinate the quality infrastructure activities in Romania, addressing such issues as the mutually supportive interests of the public and private sectors
- To harmonise the mechanisms on which quality infrastructure development is based aiming at building a conformity assessment system to support Romanian producers and products in market access
- To design, implement and monitor programmes for quality infrastructure development
- To actively participate in relevant EU and bilateral negotiations setting requirements on conformity assessment
- To collect and disseminate timely and accurate information on national/ international conformity assessment issues
- To promote awareness on the role of quality infrastructure through public information campaigns.

Within this PHARE Twinning Project MIR succeeded to set the necessary guiding rails for further approximation of the *acquis communautaire*.

MIR is also responsible for the economic development of Romania in general and the different industrial sectors in particular. Its mission is to stimulate, coordinate and implement actions capable to raise the quality of services and industrial products and to endow the enterprises with a technical and cultural environment to fit quality promotion. Some steps towards the enhancement of its administrative capacity have already been taken.

The European Commission requested the Romanian Government to draft an industrial Policy Document to appropriately prepare the basis for opening the negotiations of the Chapter 15.

The document should set the short and medium term priorities of the Romanian Economy and specify the instruments needed to fulfill them. The Government Decision 965/2001 approved the Industrial Policy and the National Action Plan, elaborated by MIR in cooperation with the other Ministries. After being approved and publish in the Official Monitor 648/16 October 2001, these documents were sent to the European Commission who made some remarks with reference to growing the pragmatism of these documents as well as to make them more coherent with the position paper.

On the occasion of the latest technical consultations from January 31, 2002 the experts of the EU Commission and the Romanian experts, members of the National Delegation for Negotiation, which was set up according to Government Decision 273/2001, have agreed on the fact that these documents must be improved. MIR revised these documents and their final versions were sent to EU Commission who analyzed them and expressed a positive judgement. It is important to note the fact that the Action Plan as well as the Industrial Policy will be amended to continuously match the evolution of economic environment.

An inter-ministerial working group was set up by the Government decision 660/2001. The functioning of this group was regulated by the MIR Order 342/31.10.2001. This inter-ministerial working group, which joins 22 experts accountable for the coordination of industrial policy implementation, is already operational improving the Documents of Industrial Policy for the period 2002-2004.

A Twinning Program is in progress together with the UK Trade and Industry Department during the period 2002-2003. The main objectives of this Twinning Program are:

- To enhance MIR's capability to elaborate and monitor industrial policy
- To develop MIR's capability to strengthen the coordination between public institutions
- To design a pilot-program financed from EU pre-accession funds and structural funds, focused on development of efficient links between industry and R&I and on extension of IT applications in industries
- To develop an adequate method to assess the competitiveness of the industrial sectors and to draft specific projects in order to boost the competitiveness of the most important sectors of the Romanian economy
- To train at least 100 people from the administration, industries, and professional organizations, to train the trainers.

The inclusion of innovation as objective of industrial policy is a good sign. It is also a challenge for MIR and other ministries since the stimulation of innovation across industries requires a reengineering of the current institutional paradigm based on hierarchies, functional segmentation and linearity. This is the reason why the MIR staff should be properly trained in new fields such as: strategic management and innovation management. Such new skills are indeed indispensable for building a new paradigm of the relations between Research, Innovation and Industries, based on participative and interactive strategy making and flexible supportive implementation.

Given that acquis compliance implies a critical mass of technological change, MIR and Government Agencies should pursue activist technology policy and understand cost and profit implications of technological developments. There is a wide acceptance of the case for government involvement in the development of technology. However, the current liberal philosophy is that, essentially, the market should remain the final arbiter of the pace, direction and form of innovation with government simply raising the overall momentum by favouring applied R&D with a variety of stimulatory policies.

The emphasis of the Romania industrial policy should be to create co-operative (public-private) R&D programmes within industry and to use public funding as a catalyst for such development.

The research agenda of these programmes generally should be established by industry or with significant input from private manufacturers rather than being determined primarily by government managers.

In order to be effective these programmes of cooperative research should be focus less on advancing the scientific or technological frontier than on adopting, adapting, refining and diffusing generic technologies that originated in the most technologically advanced nations.

MIR and Government Agencies should provide an approach which enables industrial sectors to diagnose their own future challenges and help them to develop an adequate response to those challenges.

Especially important is the design of mutually supportive organizations and arrangements to meet the collective needs of the various industrial branches; that is, public investment in a wider infrastructure rather than state aid in the traditional sense. These needs may focus on, for instance, the availability of sophisticated techniques and research facilities for designing new products and access to long run finance and hands-on managerial advice. All these are important for supporting development projects.

The Government could set up, for instance, a number of public independent agencies able to conduct research aimed at the particular needs of specific industries. The most famous example is textile district in Emilia Romagna (Italy). An information centre was established as a consortium involving regional public authorities and small and medium sized firms associations. The centre became the catalyst for the emerging group of innovators, because it has made explicit an existing innovation problem, and it has induced the individual firms to accelerate the pace of innovation. Subsequently computer-aided design facilities were introduced.

Similar experiences have been reported elsewhere in the region of Emilia Romagna, for example in ceramics, shoes and agricultural machinery; and in other regions, for example, a university consortium in Puglia providing services related to information technology, a regional agency promoting technology transfer from universities in Genova, a centre for the provision of digital technologies in Ancona.

These policies appear to have been especially successful and seem to have created a remarkable resilience in the face of international competition. The existence of industrial districts supported by local and regional public research agencies appears to have achieved an extraordinary dynamism. The district model of industrial organization is associated with networking as distinct from pure market or hierarchy as a mode of co-ordination of economic activity. Networking suggests long term, consultative relationship which facilitates investment in design and R&D. The process involves technology policy and supportive structures by the Government.

This is precisely the sort of initiative that is essential to successful economic development of Romania.

The Romanian policy makers can draw lessons from the other European experiences and indeed beyond. The Baden-Württemberg model of technology transfer, linking the universities and technical institutes in the region to the system of small and medium-sized enterprises; the provision of forty-five technical training centres in West Jutland, Denmark, which appears to have stimulated the dramatic development of highly diffused engineering industry within an essentially rural community; the high technology industrial districts of the United States developed in close association with local universities; the "indispensable infrastructure" of innovation within US agriculture provided by the federal government in the USA. It is the function of public policy to provide the educational, scientific and technological infrastructure, which would allow these private business networks to flourish and grow. These various examples suggest a strong complementarity between public and private efforts.

The fostering of collaborative structures may be a decisive element in creating a competitive and successful economy – an economy capable of closing the output and quality gap with its competitors.

This opens up a very different policy agenda: instead of the "laissez-faire" policy, Romania needs new industrial, innovation and macroeconomic policies which will develop new forms of long term corporate finance and create effective mechanisms of corporate governance; provide a modern technical infrastructure which private firms can utilize in many cases in a cooperative fashion; articulate a technology management strategy; ensure a macroeconomic regime conducive to the creation of new industrial capacity; encourage investment in skills

development; create a financial market acting as a catalyst of structural change, and promote productive cooperation and industrial innovation.

On this last point of promoting innovation, innovation policy could distinguish the different determinants of innovation between types of industries so that the particular policy targets can be more effectively hit.

## POLICY RECOMMENDATIONS FOR MIR

### Short Term:

- To enhance MIR's capability to elaborate and monitor industrial policy
- To develop MIR's capability to strengthen the coordination between public institutions
- It is recommended that MIR together with RENAR, CCIR, ASRO, BRLM and other Ministries develop and implement a national raising awareness programme. The actions within this programme should be:
  - identifying the needs of all industrial sectors
  - designing a plan for the transfer of knowledge about the European system for conformity assessment related to specific Directives, based on the needs of manufacturers
  - preparing the necessary information material in Romanian language (guidance documents and even implementation guides)
  - dissemination of the relevant information using the territorial networks of the Chamber of Commerce and Industry
  - consulting with the Delegation of the EU Commission for a common activity for the Kick-off of the awareness programme
  - consultations with the representatives of industrial branches about the ways and means to fulfill the requirements of the New Approach Directives within their specific setting
  - setting up an institutional tripartite structure between producers, authorities and designated bodies to discuss and monitor on a regular basis the national implementation of the New Approach Directives

### Medium Term:

- MIR, ANPC and other Ministries must elaborate a comprehensive and coherent Law on market surveillance. This Law has to clearly define the roles and the operating areas of the bodies involved in the market surveillance as well as an efficient mechanism of cooperation and technical assistance between them. Such a Law will allow Public Authorities to overcome the current approach based on fragmentation and will stimulate an institutional synergy. A Twinning Project/PHARE should be dedicated to the training of the staff in charge with market surveillance activities
- Set up and develop in Romania through a private public partnership a coaching shared system for economic operators in order to cope with the competitive pressures. ( see part 3.2)

## NATIONAL INDUSTRIAL POLICY

Romania's National Industrial Policy (NIP) was approved by the Government Decision no. 965/2001 "Approval of the Industrial Policy in Romania and the Action Plan".

The general objective of the NIP is to increase the Romanian industry competitiveness within the framework of the National Strategy for Sustainable Development of Romania (2000 - 2020). This will be a consequence of focusing on the following aspects:

\* consolidation of a viable business environment based on free and fair competition, adequate legal framework and harmonization with the European Union legislation

- \* development of a free market
- \* acceleration of the restructuring process and privatisation
- \* competitive advantage based on internal natural resources, skilled people and tradition
- \* human resources development, mobility and entrepreneurial spirit development
- \* promotion of the Research and Development programmes at national and sectoral level
- \* foreign investment attraction, industrial cooperation and Small and Medium-sized companies development
- \* modernization of the central public authorities
- \* promotion of the social cohesion
- \* stimulation of quality policy implementation in the companies (ISO 9000, ISO 14000)
- \* correlation with the Programme for Regional Development in Romania

A “New Approach” to elaborate and conduct a national industrial policy and a tactical programme taking into account the Acquis Communautaire in Romania

In order to improve the approach to decision making of MIR officials we make the following recommendations:

- Practical experience shows that major changes that have to be introduced in the wake of accession through a formal strategic planning encounter resistance. MIR officials should be aware of the fact that implementation of the strategy does not automatically follow strategy formulation since it exhibits its own resistance which can invalidate the planning effort. Resistance occurs whenever a technological and structural change introduces a discontinuous departure from the historical behavior, culture and power structure. Therefore, visible and hidden resistance should not be treated as an aberration, but as a fundamental problem which deserves special attention and which cannot be removed by superficial exhortation to higher performance.
- Treatment of strategy planning and implementation by MIR officials as two sequential and independent processes is an artificial convenience, which neglects the fact that the way planning is done has a determining effect on the eventual implementability of decisions.

This mechanistic approach leads to quick decisions, long action cycle, resistance to planning, implementation delays/ frustration.

The Romanian mentality is individualistic and consensus is not a generally accepted norm. In this case, the “accordion” method and P(lan) D(0) C(heck) A(ct) model would be more adequate.

We next present a series of complementary measures, which can be used to anticipate, manage and control behavioral resistance to change.

### **BUILDING A LAUNCHING PLATFORM.**

MIR officials will save time, cost, dysfunctions and performance lags if they are able to prepare the ground through a series of measures aimed at the following:

1. Performing with other economic partners a strategic diagnosis of the problems and of their urgency
2. Minimizing the startup resistance
3. Marshalling a power base sufficient to give the change momentum and continuity
4. Preparing a detailed plan for the change process, which assigns responsibilities, resources, steps and interaction through which the change will be carried out
5. Designing into the plan behavioral features which optimize the acceptance and support for the new strategies and capabilities

The first step in building the platform is to perform a preliminary resistance diagnosis. The second step is a behavioral diagnosis, which determines:

1. The extent of political/ cultural disturbance which will occur in the affected sectors and branches

2. The business and professional groups who will support or resist change and the reason for their position
3. The relative importance of groups to the success of the change. The behavioral diagnoses produce a cultural/ political/ business support/ resistance map.

### **BUILDING A SUPPORTIVE CLIMATE.**

Using the resistance map, the following measures can be taken to eliminate unnecessary resistance.

- 1- Eliminate misperceptions and exaggerations by making clear throughout the industrial sectors and branches the opportunity and the beneficial consequences of the acquis compliance to the industrial sectors. Focus on gaining acceptance on some priorities. Groups, which are expected to resist, need special attention, but the entire industry should be informed.
- 2- Eliminate or reduce fears and anxieties by making clear to business groups and stakeholders the positive/ negative impact of the change on them and especially the cost of inaction.
- 3- Use the political information from the map to build a pro-change base as follows:
  - a) To the possible extent within the available time, make changes in the power structure, which will increase the power behind the change.
  - b) Form a coalition of those groups who will benefit earlier from the change.
  - c) Offer rewards for support of the change.
  - d) Neutralize key points of potential resistance through side bargain.

Design the behavioral features into a plan for change.

- 1) Include in decision-making all groups or person who will be involved in implementing change.
- 2) Persons or groups responsible for the success of implementation should be also made responsible for making corresponding decision.
- 3) If time permits, use the contagion approach:
  - Start the change with branches and sector which are prepared and committed to change/ for example, EU export oriented sectors.
  - Reward and recognize them.
  - After their initial success, spread the change to the other industrial sectors (which have a great competitive potential)

MIR does not assume that manufacturers have the knowledge and skills in solving problems which are novel to them. MIR should build into the modular plan the necessary education and training programmes. This will not only produce effective solutions but will also relieve anxieties and thus enhance acceptance.

The “accordion” method is designed to two requirements:

1. Behavioral acceptance building must start from the beginning of the planning process;
2. Planning must be conducted in a way, which permits early launching of implementation projects.

Both of these requirements can be met by a modular design of the planning process. The modules are selected and sequenced according to the problems during the resistance diagnosis. Since implementation projects will be launched at the end of each module, training during early modules must also focus on project implementation skills. The use of two-part modules (first learn, then apply the new knowledge) integrates management development into the strategic action process and avoids forcing MIR managers into the role of “instant planners”. This results in improved quality of decisions.

Most of Romanian manufacturers have no understanding of the New Approach Directives and the system of conformity assessment in the framework of the New Approach. They lack the basic information about their new role and new responsibilities within the system.

Therefore, there is a necessity for activities (of) information and dissemination to all stakeholders and especially and in greater detail to the manufacturers because without informed parties concerned the implementation of the New Approach Directives will become very difficult.

It is recommended that MIR together with RENAR, CCIR, ASRO, BRLM and other Ministries develop and implement a national raising awareness programme. The actions within this programme should be:

1. identifying the needs of all industrial sectors
2. designing a plan for the transfer of knowledge about the European system for conformity assessment related to specific Directives, based on the needs of manufacturers
3. preparing the necessary information material in Romanian language (guidance documents and even implementation guides)
4. dissemination of the relevant information using the territorial networks of the Chamber of Commerce and Industry
5. consulting with the Delegation of the EU Commission for a common activity for the Kick-off of the awareness programme
6. consultations with the representatives of industrial branches about the ways and means to fulfill the requirements of the New Approach Directives within their specific setting up an institutional tripartite structure between producers, authorities and designated bodies to discuss and monitor on a regular basis the national implementation of the New Approach Directives

## **ACCREDITATION**

There is a national accreditation body, RENAR – a private association of public interest, apolitical and non-profit, self-financed, recognized by the Romanian Government. RENAR was established in July 1998, based upon the Government Ordinance No. 38/1998 on accreditation activity of laboratories and bodies for conformity assessment, recently approved by the Law 245/2002. RENAR is full member of the International Laboratory Accreditation Cooperation (ILAC) and since October 1996. RENAR has also the status of full member of the European Cooperation for Accreditation (EA). This means that RENAR fulfils all requirements of EA for independent accreditation and that the value of its accreditation certificates is at the same level of those of other members of EA, among which are all the national accreditation bodies of the EU countries. RENAR initiated the assessment process for signing the EA Multilateral Agreements, MLAs, for testing laboratories, product certification bodies and quality management systems certification bodies. RENAR's application for starting this assessment has been accepted during the meeting of the Multinational Agreements Committee of the European Cooperation for Accreditation, EA, which took place in Brussels on 16 October 2001. The leader of the EA team that performs the assessment in view of concluding the MLAs for the requested areas has been also nominated. Peer assessment should have been performed by the end of April 2002 but it was postponed. EA made a number of remarks with the view to speed up RENAR's alignment to European Best Practices and therefore to facilitate the full recognition and integration of RENAR in the EU and international accreditation system.

These remarks suggest the need to clarify the level of autonomy necessary to bring RENAR into total conformity with the status of the other private accreditation structures in Europe. This entails some improvements of the law 245/2002 which approved the Government Ordinance no. 38/1998. In this respect see the enclosed comments (Annex2) made by the international expert Bernard Vaucelle on the Government Ordinance no 38/1998 approved by the Law 245/2002. We recommend RENAR to urgently take advice from the EA.

RENAR has concluded a Protocol with BRLM on joint accreditation of the metrological laboratories to ensure the metrological traceability. This protocol is a good step which could lead to a fine-tuning of activities and a synergy of efforts and results, if we take into account the intention to start the procedure of concluding the MLAs for other conformity assessment bodies (inspection and metrological laboratories).

In the field of testing, inspection and certification, there are already a considerable number of accredited bodies. There are at the moment about 188 accredited testing laboratories covering a multitude of technical competencies. Some of them are in the field of electrical safety and EMC testing, which are relevant to the NAWI directive. All the EMC testing, which are relevant to the NAWI directive can be performed in Romania. However, it remains unclear whether all these tests conform with the harmonized standards on electrical safety (low voltage directive) and EMC directive. It is worth to mention that the harmonized standard, EN45501, which relates to the NAWI directive, is a Romanian national standard since October 2000. RENAR has received applications for accreditation from over thirty testing laboratories and two certification bodies in these two fields.

In the field of certification, the Romanian industry has the availability of 10 accredited bodies of quality management, 3 accredited body for environmental management system, 12 accredited bodies for product certification and 2 accredited bodies for personnel certification. In the field of inspection there are 4 accredited inspection bodies. For calibration, only 1 laboratory is accredited in the field of force measurements. Up to now all calibration laboratories were approved by BRLM. These numbers are for accredited body only, meaning that the actual number of bodies in these fields will undoubtedly be larger.

RENAR has recently developed new area of accreditation: SMS's certification, certification of the management system for information security, management of foodstuffs safety, quality systems in the public health and in the central and local administration.

#### **POLICY RECOMMENDATIONS FOR RENAR**

In order to hit its strategic target, the conclusion of MLAs with the European Cooperation for Accreditation, a particular effort will have to be spent by RENAR on following matters:

- Expanding and deepening the expertise of the staff involved in the assessment for accreditation (proficiency testing, uncertainty in measurement, method validation)
- Developing its range of expertise in the field of inter-laboratory comparisons
- Participation to joint evaluations for accreditation with EU accreditation's bodies
- Increased participation in the international technical committees (IAF, ILAC, Eurolab, Eurochem, etc)
- Purchasing the needed equipment, especially auto laboratories for the transport of standards or samples during inter-laboratory comparisons with the support of the Delegation of the European Commission
- Setting up the sectoral committees in the regulated areas in order to ensure a consistent development of the accreditation procedure
- Designing a realistic training project management proposal (cascade training for trainers) within Programme PHARE 2002
- Elaborating with BRLM and MIR a national programme for upgrading the proficiency of existing testing laboratories that are eligible for conformity assessment operations and for establishing new testing facilities to meet the requirements expected to appear in the future as a result of the rapid growth of some industrial sectors (for example, the software industry).

## DESIGNATION (NOTIFICATION}

The Law 608/ November 2001 on product conformity assessment and its Methodological Norms create the possibility for establishing Designated (Notified) Bodies. One of conditions for becoming a designated (notified) body in Romania is an accreditation by RENAR. The Government Decision 487/2002 has recently approved the methodological norms regarding the framework procedure for designation of testing laboratories and conformity assessment bodies and for national notification. As a result, specific designation procedures elaborated by ministries must be harmonized and the list of designated bodies ought to be revised as well as modified if “necessary”, so that the ministries ensure the fulfillment of all notification requirements including the accreditation by RENAR.

Table 1 The Current Situation of Designated Bodies for the Conformity Assessment

Directive National technical regulation	Designated bodies
Low voltage equipment 73/23/EEC G.D. 1337/2000 relating to the safety of the users of low voltage equipments	<ul style="list-style-type: none"> <li>• SC ICPE Sa</li> </ul>
Safety of toys 88/378/EEC G.D. 710/1999 relating with the safety of the users of toys G.D. 1257/2001 for the modification and completion of the G.D. 710/1999	<ul style="list-style-type: none"> <li>• CASSTIL Laboratory</li> </ul>
Electromagnetic compatibility (EMC) 89/336/EEC; 92/31/EEC G.D. 1023/2001 on establishing the conditions for placing on the market and setting into function of the electric and electronic devices from the point of view of electromagnetic compatibility	<ul style="list-style-type: none"> <li>• Laboratory for electromagnetic compatibility ICMET – Craiova</li> <li>• Testing Laboratory for electric products certification – ICPE SA</li> <li>• General Inspectorate of Communications</li> </ul>
Safety of machinery 98/37/EEC Law 90/1996 regarding labour protection and the methodological norms in force	<ul style="list-style-type: none"> <li>• Labour Protection Institute</li> <li>• ROMCERT-ROMATEST SA</li> <li>• INMA-CERT</li> <li>• ISIM-CERT</li> </ul>
Personal protective equipment 89/686/EEC; 93/95/EEC; 96/58/EC Law 90/1996 regarding labour protection and the methodological norms in force	<ul style="list-style-type: none"> <li>• Labour Protection Institute</li> <li>• LIEx-INSEMEX Petrosani Institute</li> </ul>
Equipment and protective systems in potentially explosive atmospheres (ATEX) 94/9/EC Law 90/1996 regarding labour protection and the methodological norms in force	<ul style="list-style-type: none"> <li>• SECEX-INSEMEX Petrosani Institute</li> <li>• LIEx-INSEMEX Petrosani Institute</li> </ul>
Medical devices 93/42/EEC Law 176/2000 on medical devices and the methodological norms in force	<ul style="list-style-type: none"> <li>• The Office for medical devices - SVIAM</li> </ul>
Active implantable medical devices 90/385/EEC; 93/42/EEC Law 176/2000 on medical devices and the methodological norms in force	<ul style="list-style-type: none"> <li>• The Office for medical devices - SVIAM</li> </ul>

In vitro diagnostic medical devices 98/79/EC Law 176/2000 on medical devices and the methodological norms in force	• The Office for medical devices - SVIAM
Marine equipment 96/98/EC MOPWTH 216/2000 on approval of the technical norms relating with the type approval of the products and equipments for maritime ships provided by the international conventions in which Romania is a signatory part	• Romanian Naval Register
Telecommunications terminal equipment and satellite earth station equipment 98/13/EC Law 74/1996 on telecommunication MOCIT 8/1998 and DD 401/3125/1998 regarding type authorization procedure	• General Inspectorate of Communications

Till March 2002, there were accredited by RENAR, according to the EN 45 000 standards, the following bodies :

-11 certification bodies for quality management systems (AEROQ, SRAC, RAR OCS, SIMTEX OC, AFER OCS, QUALITAS SA, ROCERT SA, MOODY INTERNATIONAL SRL, SGS ROMANIA, CERTROM, QUALITY CERT)

-10 certification bodies for products (INMA CERT, AEROQ, RAR OCP, ROMCONTROL SA, QUALITAS SA, ICPE DICPE, SRAC CERTSERV, INSCERT SRL)

-2 certification bodies for people (RENA, AROEND)

-1 certification body for environment systems (SRAC)

-4 inspection bodies (PETROMIDIA SA)

-1 calibration laboratory (ICMET CRAIOVA)

-186 testing laboratories (in 40 cities)

In respect to Romania's needs, the number of accredited certification bodies is not enough large. No accredited body for certification of services, only one accredited calibration laboratory, only one accredited body for certification of environment management systems and only two accredited certification bodies for personnel are, obviously, very few...

In addition, it was found that the certification bodies for quality management systems have a very broad specialization, reducing thus their credibility. For example, the number of competence areas, according to NACE code is of... 86 for SC SIMTEX and... 83 for RAR-REGISTRUL AUTO ROMAN - two accredited certification bodies for quality management systems. The other 9 such bodies registered 16 to 68 areas of competence!

ISO 9000 quality systems are implemented now, in Romania, not only in companies, but also in hotels, city halls, hospitals, etc. It became desirable to implement such systems -- mainly for accountability reasons -- within all governmental agencies and public organizations as well as in State universities.

## STANDARDIZATION

The Romanian Standards Association (ASRO) was established by Government Ordinance No. 38/30 January 1998. This Ordinance has been recently approved by the Law 355/2002.

ASRO is full member of the International Standards Organization (ISO), of the International Electrotechnical Commission (IEC) and of the European Telecommunications Standards Institute (ETSI). ASRO is also an affiliate member of the European Committee for Standardization (CEN) and of the European Committee for the Electrotechnical Standardization (CENELEC). The statutory rules of ASRO are fully compatible with the mode of organizational voluntary standardization as operated in CEN/CENELEC. The Government supports ASRO's membership fees.

The most important condition that ASRO must fulfill in order to become full member CEN and CENELEC is to adopt 80% of the European Standards and to withdraw all the Romanian conflicting documents in the field. ASRO has already taken the necessary steps to withdraw the national conflicting documents.

In 21-08-2001 ASRO has signed a Memorandum on the "Romanian Strategy for the adoption of the European Standards" with the Ministry of European Integration and the Ministry of Education and Research. The Memorandum was approved by the Romanian Government. It includes: the percentage of the translated standards should be of 20% and the percentage of endorsement (cover sheet) should be of 80%. The estimated financial resources from the state budget are 2.6 mil. USD in 2002-2003.

If the financial resources are assured, about 80% of the standards ratified by CEN and CENELEC will be adopted until December 2003. It is estimated that more than 80% of the European harmonized standards related to the New Approach Directives will be adopted until December 2002. The Romanian Government has launched a standards implementation programme to be carried out by every ministry on its own area by the end of 2003.

ASRO has adopted -till March 2002- 3991 ENs as Romanian Standards out of which 2799 SREN (CEN), 893 SREN (CENELEC) and 299 SREN (ETSI). For the remaining adoption ASRO intends to observe the following schedule:

2002: 4200 ENs  
2003: 4600 ENs  
2004: 2300 ENs

A large part of the PHARE programme RO99060103 was for the supply of equipment to the major players in the quality infrastructure (RENAR, BRLM, ANPC, ASRO). ASRO has received all the necessary equipment for the "in house printing system" for the Romanian Standards and others ASRO publications. ASRO has set up a number of national technical Committees according to the structure of the CEN/CENELEC Technical Committees: 103 "CEN mirror committees" and 53 "CENELEC mirror committees". Unfortunately these committees exist only on the paper.

The national network of technical mirror committees should be reinvigorated, developed and financially supported both by the Ministries and economic private operators in order to become a laboratory of cross-fertilizing ideas and hands-on projects that might lead the manufacturers to acquire the know how of technology management.

ASRO specialists together with representatives of technical research institutes would have here the opportunity to receive from various manufacturers clear messages about their needs and difficulties in the application of the relevant standards and then use this valuable information to better structure the teaching process and to develop customized educational products and services. In exchange, the manufacturers and business community at large could discover and understand the manner in which technical standards are related to various parts of their production and economic process. The key concepts underlying ASRO's operational model and policy stance should be value-partnership-optimization.

These summarize the key strategic lines to be pursued by ASRO, concerning the capability to understand, serve and possibly anticipate market needs (value), to ensure maximum participation and collaboration among all the relevant parties (stakeholders) at the various stage of the ASRO system (partnership), to re-engineer the core business processes making extensive use of information and communication technologies, to be able to better gather the resources required to support the ever growing standardization demand and to make the most effective use of them for the improvement of ASRO's services and total system cost reduction (optimization). From a full analysis of ASRO's current strengths, weaknesses, opportunities and threats (see Annex 1), seven major strategies have been constructed from relevant strategic elements:

## POLICY RECOMMENDATIONS FOR ASRO

### 1-Increasing ASRO's market relevance by

- Better understanding market needs and improving the participation of enterprises, policy makers and other stakeholders (professional organizations)
- Improving systematic priority setting (strategic management)
- Strengthening technical programme management
- Proactive application of project management concepts and techniques
- Enhancing TC leadership training
- Participation in international standardization (CEN/CENELEC and ISO technical committees). When such international technical committees unites participants and instructors from countries with different levels of development, they become a form of transfer of technology that can help reduce the gap between technologically advanced and less developed or transition countries

2-Improving the effectiveness and efficiency of both the national and international communications and relevant information delivery. In this context, the top priority for ASRO on short term is to organize and develop a national standards information centre. This centre will perform two complementary functions: on one hand it will implement the Directive 98/48 laying down a procedure for the provision of information in the field of technical standards and regulations, and on the other hand it will provide a valuable source for collecting, identifying and disseminating information on harmonized European standards, international standards and standards- related documents not only to its stakeholders and users at national level, but also to other information centres worldwide.

ASRO badly needs technical assistance (practical guidance and financial support) in establishing a standards information centre. The technical assistance should include: the objectives and types of services and products that may be offered by such a centre, an organizational model, the management of the documentation collection, marketing, publicity, financing, staffing, training, how to install a good management information system preferably customized on a standard software system, cooperation with other information centres.

3-Providing engineers, business managers and economists with some insight into how standardization permeates the entire range of their specific subject area. This then raises the question as to what knowledge has to be transferred in order to promote a comprehensive understanding of standardization along with its impacts and effects on enterprises and markets. To respond to these needs, ASRO should develop its own range of education (training) services so that it gives not only better access to relevant information on standardization and quality issues to economic operators, top management and technical research institutions but also the right methods to efficiently convert this information into workable knowledge.

ASRO should design a new teaching concept of standardization and gradually move from the traditional forms of disseminating knowledge towards the use of multimedia in the sense of

integrating different information and communications technologies (video recordings, hypertext as well as simulations and animations) in order to better structure the learning process. With the era of multimedia technology it will be possible to devise new didactic concepts for target-oriented and interdisciplinary learning.

One important result of this concept will be to make this knowledge of standardization available for study and further training on a global basis. A link between a multimedia-based presentation in research and teaching will give rise to new opportunities for directly integrating current approaches and results of research into teaching. In this way, the unity of research and teaching will be intensified by a research-oriented scheme of study.

#### 4-Optimizing the use of resources

- Serving market needs and funding operations accordingly
- Focus on priorities and cost reduction

A significant new effort will be required to identify objective indicators and develop appropriate procedures to monitor them as the basis for any evaluation of strategy implementation.

A particular effort will have to be spent by ASRO on market relevance and communications, areas for which it is difficult to define objective measure. However, a set of meaningful, relatively simple and manageable drivers needs to be selected and progressively used throughout the system. For example, basic indicator concerning the specific market relevant to each particular work item can be introduced (e.g. overall size and trend of the market: combined revenues, number of enterprises and number of employees, growth rates, market share structure, breakdown of revenues per sectors and branches, volume of international trade) and an assessment of the market representativeness of the participants in the standardization process should be performed (number of sectoral market leaders involved, professional associations, consumer organizations).

Evaluations of the adoption of the European Harmonized Standards and International Standards at national level and estimates of their penetration of the various sectors should also be performed. Similarly objective indicators have to be introduced to analyze the effectiveness and efficiency of communications, in terms of the number and quality of contacts and feedback with different kinds of users, as well as measures of customer satisfaction and of ASRO's image.

#### 5-Development of the product conformity mark affixing system

#### 6-Boosting the orientation towards voluntary certification:

develop an education and training scheme for people involved in voluntary certification (especially in the field of professional standards and company standards)

7-Develop a sales department for standards. As affiliate member ASRO is observing CEN/CENELEC copyright and exploitation rights policy. In Romania there is in force a copyright law but it doesn't make any reference to standards. ASRO and the Office for the Protection of Intellectual Property Rights must clarify how this law applies to standards sales.

## **METROLOGY**

BRML is the National Body for Metrology

1. BRML is a specialized body of the central public administration charged with the coordination and control of entire metrological activities at national level. It is a public

organization with legal personality, entirely financed by extra-budgetary income, subordinated to the Ministry of Industry and Resources

2. The responsibilities, tasks and organization of BRML are regulated in the Government Ordinance concerning metrological activity (20/1992) which has been amended by the Government Ordinance 104/1999, the Government Decision concerning the organization and functioning of the Romanian Bureau of Legal Metrology (853/1999) and the Government Decision (318/1998) on the dissemination of the units of measurement, type approval, metrological authorization, metrological marks, national system of standards, legal control by unexpected inspection and checking, metrological supervision of the owners of metrological authorization.
3. BRML is headed by a General Director assisted by a Board of Directors with an advisory function. Within the organization there are four main divisions:
  - a) Economic (administration, finance, human resources)
  - b) Territorial (under this department reside the 41 regional metrology offices – one in every province – with about 600 employees)
  - c) Maintaining and development of national standards. This is actually the national metrology laboratory, INM (Institute of National Metrology) which deals with scientific metrology and ensure the trace ability of the national standards to the international standards. INM has a staff of about 170 persons
  - d) Technical Division. Within this division reside departments for national metrology regulations, international cooperation, quality assurance and a technical department

Within the process of European integration, the BRML is in charge with the transposition and implementation of 25 European Directive (out of which 21 refer to the field of legal metrology and 4 refer to pre-packaged products).

Up to now, the provisions of the Directive relating to the common procedures concerning measuring instruments and methods of metrological control have been transposed by Government Decision No. 1055 of 18 November 2001 while the EEC legal metrology norms which transpose Directive 75/107 IEEC, 86/217/EEC, 71/347/EEC, 77/95/EEC, 73/362/EEC, 76/765/EEC, 76/766/EEC and 76/891/EEC concerning certain measuring instruments are in the process of approval.

In order to implement the Government Decision 530/7 June 2001, which transposes into the Romanian legislation the provisions of the Directives 75/106/EEC, 76/211/EEC and 80/232/EEC, BRML will receive during 2002 from TAIEX technical assistance to elaborate the legal metrology procedures of statistical metrological control of pre-packages, the market surveillance procedures similar to those operating in the member states, as well as a procedure approving the packers and importers' procedures, aimed at checking the real content of pre-packages.

The full transposition of the European directives concerning metrology and pre-packages into Romanian legislation will be completed by the end of 2002.

Within the Pre-accession Programme PSO Center International there is a project scheduled for 2002: "Development of the organizational and functional capacity of the BRML with view to the adoption of the European acquis in the metrology field.

The project purpose is to create adequate conditions to:

- Develop the Romanian Metrological Informatics System (SIMEROM) able to perform metrological task based on the Dutch experience and the needs identified under the project "Implementation by BRML of the New Approach Directive 90/384/EEC on non-automatic weighing instruments".

- Implement appropriately the provision of Government Decision No. 1055 concerning the placing of measuring instruments on the market (transposition of the Directive 71/316/CEE and EEC legal metrology).

Within the framework of PSO Pre-Accession Programme, The Center International will start in 2002 a project whose beneficiary is the BRML. This project is aimed to create the conditions, which will allow the Romanian authorities to transpose and implement the New Approach Directive 90/384/EEC on non-automatic weighing instruments (NAWI). The way the implementation of the NAWI directive and its conformity assessment infrastructure takes place should also function as a role model for Romanian authorities to be followed in other New Approach directives.

#### Designation for Accredited Bodies

The National Metrology Institute of BRLM has expressed the intention of becoming a Notified Body for type examination because under the present national metrology regulation it is already endowed with the task of type approval of weighing instruments.

Within the framework of PSO project, BRLM will get support to transform part of itself into a Notified Body for type examination. Support to BRLM will not create a monopoly position, because the manufacturers will be free to choose any Notified Bodies from the ones available in Europe. In other words BRLM will experience competition on European scale. Becoming a Notified Body has a number of consequences for the present BRLM, as certain preconditions on transparency and independence have to be met. As a consequence, the organization structure of BRLM needs to be change.

### **MARKET SURVEILLANCE**

The Law on the product conformity assessment states that the authority responsible for a specific technical regulation shall be responsible for the market surveillance and shall nominate the organizations for its actual performance. In case of the NAWI directive, the Ministry of Industry and Resources is the accountable authority. MIR has already nominated BRLM as the body endowed with the task of market surveillance for non-automatic weighing instruments and intends to do so in the near future regarding the New Measuring Instruments Directives. That task requires the same type of organizational changes at BRML as the role of Notified Body and should be taken on board simultaneously. In doing so the market surveillance aspect of the NAWI is covered.

Two main problems have been identified by experts which could have their bearing on the implementation of the NAWI directive.

In the first place, BRML is a so-called extra-budgetary entity. This means that BRML does not receive any financial contribution from the state budget and has to finance all its activities out of its own income. This is a peculiar situation compared with other national metrology institutes in Europe and also elsewhere in the world. Normally the national metrology institutes receive a contribution from the State for those activities that are performed for the national interest, such as maintaining and developing the national system of physical standards and its trace ability to international standards, and the legal metrological inspection and control function.

BRML is allowed and forced to charge fees for every activity performed for any third party, also in the field of legal metrology. However, BRML is not free to charge any fee it wants, because the fee has to be approved by the Ministry of Industry. Therefore, BRML finds itself in a

financial squeeze and needs to increase its income in order to be able to perform all the tasks assigned to it.

The second problem has to do with the intention to become a Notified Body for type examination under the NAWI directive. This is basically a commercial activity, but it requires changes in the organizational structure of BRML in order to fulfill a number of legal requirements for Notified Body.

The requirements have to do with creating credibility, impartiality and transparency. As a Notified Body, BRML has to avoid any public image of prevalence of specific interests, not safeguarding information from private clients, or financing its activities with income from other public tasks. It would need a complete separation from the other activities of BRML in terms of tasks in the technical assessments for accreditation and notifications, because it is the only organization with sufficient capabilities to make such judgements over the competence of other organizations. Such a task should also be surrounded by safeguards for independence and impartiality.

It was proposed to separate the main function of BRML into four independent units.

BRML Conformity Assessment in which all commercial activities relating to type approval and verification of products are concentrated, including the function of Notified Body. This step is not only logical under the NAWI directive, but also with a view to the future implementation of the Measuring Instruments Directive.

BRML Inspection, Control and Market Surveillance. This is the area of state metrological control of instruments. In case of weighing instruments it relates both to the regular inspections of weighing instruments (e.g. in shops, on markets) and the mandatory re-verification of such instruments.

INM. This is the national metrological laboratory where the function of maintaining, reproducing and disseminating the national units of measurement will be vested. Furthermore, it will ensure the traceability of the national physical standards to the international ones, as well as deal with matters of scientific methodology and perform high-level calibrations of measuring instruments for other metrological laboratories, universities and industries.

BRML Assessment. This is a separate function intended to give independent and objective advice on the technical competence of other organizations that have applied for accreditation and notification.

Over and above these units is BRML itself. It will have a controlling interest in each of the four subordinated organizations, e.g. by holding all or a substantial majority of the shares, or any other institutional arrangements allowed for by the Romanian national laws. The major task of BRML is to supervise the activities of the subordinated organizations, to ensure their independence of each other in terms of administration personnel and finance and to consolidate the organizations at the highest level, so that all requirements made by BRML in the national regulations on methodology and the decision on the functioning of BRML are met. BRML will supply them with yearly sets of targets to be met and the financial means to achieve these targets.

One of the problems to be shared would be what is the best organizational structure for BRML, within the compelling conditions set by the Romanian political and legal system. This issue relates to the question of generation and redistribution of income among the different units, including system for the proper calculation of prices on commercial basis and transfer pricing between units for services rendered.

Concerning the NAWI implementation project some risk factors must be taken into account: It is necessary that at the political level in Romania a consensus exists with regard to the position and functioning of BRML into completely separate and independent units, if such a

solution would be considered preferential, than the performance of the different functions would run into problems.

It would be virtually impossible for each function to exist completely on its own, because some of the activities would not generate enough income to sustain themselves. Embedding the separate units into an umbrella organization would lead to a situation in which the units can support each other by transferring income via consolidation under this higher unit. Activities which are important from the point of view of the national interest, such as maintaining and disseminating the units of measurement, but which do not create income can in such construction be maintained without contribution from the government budget. Also the exchange of knowledge and experience among the staff of the different units would be a synergy effect that would get lost if a complete separation were aimed at.

A second risk, but at a more practical level, is the present lack of insight into the legal possibilities for reorganizing BRML. It might be the case that certain issues are lacking in the Romanian legislation concerning legal entities that are taken from granted in most Western European countries (e.g. holding companies structure, avoiding of double taxation).

Finally, it worth to mention that the full implementation of the Directives related to boilers, pressure vessels, appliances, burning gaseous fuels and lifts implies the institutional restructuring of ISCIR (the National Authority for Control and Approval of Boilers, Pressure Vessels and Hoisting Equipment) in order to separate its competencies of conformity assessment body from those of market surveillance body and inspection body. The same problems and risks arise for the same reasons as in the reorganization of BRLM case. Both BRLM and ISCIR need at least one-year transition period to come to the term with these reorganizations successfully.

#### **POLICY RECOMMENDATIONS FOR BRML**

- Enhancement of its metrological infrastructure and its market surveillance skills
- Evaluation of the needs for the achievement of comparisons at international level
- Establishment of methods and procedures to provide traceability to the international standards

Acquisition of patterns and testing standards intended for checking measuring instruments used in the fields of utmost importance: nuclear measurements, environment protection, medical measurements, telecommunications.

#### **OTHER MARKET SURVEILLANCE ORGANIZATIONS**

The National Authority for Consumers' Protection (NACP/ ANPC - Autoritatea Națională pentru Protecția Consumatorilor) has been set-up in 1992, as Government agency with national representation. Based on the Government Ordinance no. 21/1992, the NACP is operating at the level of each county (judet) having and headquarters in Bucharest So, beside the headquarters there are 42 local branches of the NACP based in the counties capitals acting in network.

The headquarters has three main Departments: (i) Market control and surveillance, (ii) Strategies - Partnership - Harmonization of legislation - Mass Media and (iii) Economic and Human Resources. The headquarters involve 50 employees. The local branches having 550 job places are partially staff. Attached to the NACP is the National Centre for Testing and Products Inspection of Conformity which has nine local branches, acting all over Romania based on the Government Decision no. 625/1999.

The NACP is elaborating and co-ordinating the Government policy of consumer protection alongside the Inter-ministerial Committee for the Surveillance of Products & Services

Market (CISPPSPC), according to the Government Decisions no. 449/200 and 681/2001 for building up a national system for surveillance of products & services market.

In order to protect the consumers, the NACP could take actions such as: temporary or definite restriction from trading infringement products or services, withdraw or braking of the dangerous products, sealing the products which are not comply with the provisions and even proposals to the empower institutions for suspension or closing down companies which are placing on the market of non-compliant products or services.

NACP is supporting the set-up of non-governmental organizations (127 associations and 16 confederations have been established so far) to joint the actions for information, awareness campaign and training the consumers.

Also, a Centre for Counselling and Information for Consumers is operating closed to the NACP.

The NACP is the National Contact Point for the TRAPEX (Transitional Rapid Exchange of Information System) to handle emergency situations caused by consumer products that present a serious and immediate danger. The system is fully operational.

The NACP is mainly involved in the Chapter 23 "Consumers and health protection" having signed a mutual agreement with the Ministry of Health and Family and Ministry of Agriculture, Food and Forests.

The main legislative measures within which the NACP has been involved from its early stages are:

- the Government Decision no. 187/2000 (O.J. 121/21.03.2000) deals with the imitations of alimentary products presenting the risk to endanger the health or safety of consumers
- the Government Ordinance no. 21/1992 on consumer protection which are defining: quality, consumer, economic agent, product, service, conformity statement, guarantee term, validity term, medium duration of use and hidden vices
- the Government Ordinance no. 58/2000 to complete the G.O. 21/1992 is introducing the definitions for: producer, distributor, seller, performer, safe product, dangerous product, product for long time use, service, unfair term, minimum time durability, unfair trade methods.
- the Government Ordinance no. 87/2000 (O.J. 421/01.09.2000) on the liability of producers for the dangerous caused by defective products.

The adoption of the European Union (EU) Directives have been already fulfilled in the following areas:

- general product safety
- misleading and comparative advertising
- dangerous imitations
- liability of producers for the dangerous caused by defective products
- distance selling contracts
- sales of the commercial physical places
- pricing indication
- tourist services package
- abusive closes in the contracts
- cosmetics products
- labelling of foodstuffs, textile, shoes and detergents products

On coming legislative measures within which NACP will be involved concern:

- sales products to consumers and associated guarantees
- consumer credits
- ownership contracts for real-estate on time share

- actions for stopping injunctions for consumer protection

Another Governmental agency for market surveillance is the State Inspectorate of Constructions (ISC - Inspectoratul de Stat în Construcții). It passed a legislative draft proposal for being itself responsible for market surveillance in buildings/ constructions field.

**Swot analysis of education & training and consultancy organisations involved in quality management, and consumers associations.**

**S – Strengths**

1. There are in Romania over 33 organizations involved in education & training and consultancy in quality management (QM) matters; all these organizations were founded after 1990 and are registered either as SME or NGO.

2. These organizations are leading the movement of private and public industrial companies towards higher productivity, quality, efficiency and effectiveness as well as the transition of companies quality management from “inspection” and “quality control” approaches towards the much more effective and efficient “quality assurance” and “total quality management” approaches.

3. These organizations are contributing in the largest extent to the adoption in Romanian companies of European standards, procedures and good practices.

4. These organizations are representing the most important available resources of knowledge and know-how of Romania’s companies enabling them to implement an own quality system, according to standard EN ISO 9001:2000

5. Thanks to the operation of these organizations, over 1500 organizations (mostly public or private companies) were certified ISO 9000 and 10 companies implemented an Excellency model (being finalists of the “J. M. JURAN” Romanian Quality Award).

6. There are in Romania 127 private consumer protection organizations, grouped in 16 federations and in a confederation. They are acting mainly in the fields of consumer information and representation of their interests. They should co-operate with over 60 public organizations involved in consumer protection matters (mainly within market surveillance).

**W – Weaknesses**

1. Competition on the markets of QM consultancy and QM education & training is not regulated and, thus, very few transparent. Consequently, this competition is oft unfair and, sometimes, even unsustainable.

2. Entering on market of these organizations as well as of their consultants/ trainers is completely free, since no accreditation and certification system addressed them.

3. Maintaining of consultants and trainers on these markets is only partially determined by their skills, experience and successes.

4. There are no formal deontological/ ethical provisions (codes) for consultants and trainers in quality management matters.

5. The recently founded Association of Romanian Consultants involved in Quality Management (ACRMC) is very weak, since it is inexperienced and without enough financial resources.

6. Most private organizations for consumer protection do not have enough financial resources in order to realize their objectives.

7. There is no formally established co-operation (and even relationships!) between consumers associations, on one side, and organisations involved in QM consultancy or QM education & training, on another side.

**O – Opportunities**

1. Founding, development and operation of ACRMC

2. Establishment and promotion of nation-wide standards and procedures for the assessment and certification of QM consultants and trainers

3. Mutually advantageous co-operation with European QM consultants, educators and trainers, as well as with pan-European private quality organizations like EOQ, EFQM and EOTC.

4. Elaboration and publication of first Romanian occupational standards related to EOQ - European Quality Professions (i.e. Quality Professional, Quality System Manager, Quality Auditor, Environment System Manager, Environment Auditor)

5. Accreditation of Romanian Quality Association by Austrian Quality Organisation in order to qualify, assess and certify Romanian quality professionals.

6. Establishment, regular publishing and nation-wide distribution of three quality magazines (i.e. the monthly “Tribuna calității”/”Quality Tribune”, the quarterly “Q-Media” and the monthly “Calitatea - Acces la succes”/ “Quality - Access to Success”) as well as of the monthly “Revista Română pentru Protecția Consumatorului și Producătorului”/”Romanian Magazine for Consumer and Producer Protection”.

7. Implementation of legislative and institutional framework of the Acquis communautaire corresponding to Chapters 1 and 23

8. Benchmarking of European organizations (mainly companies)

#### T – Threats

1. Heritages of the former passive-repressive approach of quality on people’s mentalities, attitudes and behaviours

2. Low levels of accountability and of social responsibility of organizational and individual customers of QM consultancy and education & training organizations

3. Lack of personal involvement of companies’ top managers in quality matters

4. Ignorance and self-sufficiency in quality management matters of companies managers, of governmental officials, of politicians and of mass-media managers. To note, for example, confusions made between concepts of “product safety” and “product user safety”; these confusions were introduced in transposing directives 73/23/EC (for low voltage equipment) and 88/378/EC (for toys) into Romanian GD 1337/ 2000 and, respectively, GD710/ 1999.

5. Lack or insufficiency of financial resources enabling public or private companies to design and implement a quality/ environment management system

6. Low priority given in most public organizations to managerial challenges and issues (including those of quality management)

### **Section 3. An analysis of relevant Romanian private sector activity.**

This section attempts to make assessments of how the acquis (EU's legal framework) will affect the Romanian manufacturing sector as a whole and from a strictly business point of view. We identify those components of the acquis, which have a direct or indirect impact on the Romanian manufacturing sector.

At this point a distinction is made between product-related requirements, production-related legislation, and enterprise structure-related legislation. Then we assess the affected sectors' level of preparedness for the acquis using some relevant indicators: export profiles (intensity and profitability of export to EU), level of foreign direct investment (FDI), participation of foreign investment enterprises, size of enterprises, level of domestic investments. Finally, we analyze the effects of the acquis for a number of sectors and industries.

The single market legislation consists of both horizontal and product-specific directives and other types of legislation that aim to harmonize product specifications in order to eliminate technical barriers to trade. There are two types of product related legislation: New and Old Approach Directives. A second approach to remove market-segmenting barriers is the Mutual Recognition Agreements (MRA).

**Table. 1 Goods affected by single market legislation**

Industry Category Manufacturing total	Goods affected/total goods
<b>Food products; beverages and tobacco</b>	<b>68%</b>
<b>Textiles and textile products</b>	<b>-</b>
<b>Leather and leather products</b>	<b>-</b>
<b>Wood and wood products</b>	<b>1,5-3%</b>
<b>Pulp, paper &amp; paper products; publishing &amp; printing</b>	<b>1,5%</b>
<b>Coke, refined petroleum products &amp; nuclear fuel</b>	<b>-</b>
<b>Chemical, chemical products and man-made fibres</b>	<b>65-66%</b>
<b>Rubber and plastic products</b>	<b>10-17%</b>
<b>Other non/metallic mineral products</b>	<b>5-8%</b>
<b>Basic metals and fabricated metal products</b>	<b>8-9%</b>
<b>Machinery and equipment n.e.c.</b>	<b>30-40%</b>
<b>Electrical and optical equipment</b>	<b>34-36%</b>
<b>Transport equipments</b>	<b>55-66%</b>
<b>Manufacturing n.e.c.</b>	<b>0-1,5%</b>

Source: Landesmann and Stehrer WIIW (2000)

Here the relevant question is how much product-specific legislation exists for manufacturing industry, i.e. requirements that need to be full filled before a product is allowed to be placed in the European Single Market? Table. 1 above indicates the share of goods covered by the EU standards within each sector as a percentage of the total number of goods produced. The estimates are based on a transcription of EU Directives in terms of their coverage of detailed products, carried out at 8-digit CN code level.

The second relevant question is how do horizontal, production-specific regulation affect the industry, such as environmental requirements, rules about occupational health and safety and labor markets guidelines? Compliance with the environmental acquis for the industries will affect the enterprises' competitiveness in two ways: first, by requiring additional investments to alter production processes or new capital investments, and second, through increased charges, levies

and taxes to pay for public sector investments. Whatever the estimated total costs of compliance with the environmental acquis might be, it is generally assumed that between 25% and 30% of this total cost will have to be covered by the industry, or by the private sector as a whole. The extent to which the indirect costs (negative externalities) will be carried through the industry will depend on how quickly the government introduces the polluter pays principle. Overall, the implementation of the Integrated Pollution Prevention and Control (IPPC) will be the most significant change to current practice in the field of environment to the industries in Romania.

For those industries directly affected by IPPC directive, expenditure is expected to be huge since it will require the enterprises to apply Best Available Technology (BAT), which focuses on waste minimization during the production process as opposed to a reliance on end-pipe controls. In terms of industrial impact it means that the import of technologies become important. It means also stronger reliance upon foreign expertise and foreign companies that are already used these standards in their existing EU operations. Table. 2 indicates which manufacturing sector will be mostly affected by the environmental acquis.

**Table. 2 Industry sectors and the environmental acquis**

Industry sectors	Major direct and indirect community legislation
<b>Food products; beverages and tobacco</b>	<b>IPPC, Waste management, Packaging directive</b>
<b>Textiles and textile products</b>	<b>IPPC</b>
<b>Leather and leather products</b>	<b>IPPC</b>
<b>Pulp paper &amp; paper products, publishing &amp; printing</b>	<b>IPPC</b>
<b>Coke, refined petroleum products &amp; nuclear fuel</b>	<b>Sulfur Directive, IPPC</b>
<b>Chemicals, chemical products and man/made fibres</b>	<b>Waste Management, Air pollution, Major accidents, IPPC</b>
<b>Basic metals &amp; fabricated metal products</b>	<b>IPPC</b>

Source: Compiled from World Bank and Commission sources.

A number of New Approach Directives establish minimum health and safety requirements for products used in the workplace, such as work equipment, personal protective equipment and display screen equipment. The directive on work equipment requires the employer to provide suitable equipment such as machinery and apparatus, and ensure that it does not harm the worker's safety or health (a separate Directive exists on the safety of machines). The minimum requirements for these measures are laid out in an annex to the directive. As for the directive on personal protective equipment, it requires the employer to ensure that the equipment complies with Community provisions on design and manufacture with respect to safety and health (a separate Directive establish minimum requirements for this kind of equipment).

This legislation particularly affects industries, which inherently expose workers to health and safety risk, such as parts of the food industry, manufacture of wood and wood products, machinery and equipment, electrical and optical equipment and transport equipment. Romania still lacks a multi-annual assessment of the cost for public and private actors to implement the legislation – as a percentage of GDP. The main part of the acquis that relates to labor market is made up of the European Social Charter, which sets out minimum standards in areas of the institutional bargaining system, social welfare, migrant workers' rights, condition of work severance protection, protection of worker' claims in case of bankruptcy and the right of workers' representatives.

The enforcement of EU regulation of labor markets may have adverse consequences on the start up of new firms and industries and thus on competitiveness. High start-up costs may lead to smaller number of companies than would otherwise have been the case. And such slower business formation due to excessive costs of hiring, employing and firing labor may inhibit the transition towards a private sector-based economy.

The rules covering state aid constitute one of four components in the competition acquis and perhaps they are the most difficult for Romania, especially in those sectors of the economy where privatization has not been completed: Romania adopted a Competition Law 21/1996 and the State Aid Law 143/1999. However, having a competition law on the books or having an up and running competition agency is not a sufficient condition for effective implementation. The Table. 3 summarize the indicators of relative exposure to the acquis that have been assigned to each sector; ranging from three stars for the most exposed sectors to no star where the acquis requirements will not affect the sector in any significant way.

**Table. 3 Industry sector's exposure to the acquis communautaire**

Industry Sector	Single market legislation	Environmental Acquis	Occupational Health & Safety	Competition
<b>Food Products; Beverages &amp; Tobacco</b>	***	*	*	
<b>Textiles &amp; Textile Products</b>		**		
<b>Leather &amp; Leather Products</b>		**		
<b>Wood &amp; Wood Products</b>		*	***	
<b>Pulp, Paper &amp; Paper Products; publishing &amp; Printing</b>		***		
<b>Coke, Refined Petroleum Products &amp; Nuclear Fuel</b>		***		
<b>Chemical, Chemical Products &amp; Man-Made Fibres</b>	***	*	***	*
<b>Rubber &amp; Plastic Products</b>	*	*		
<b>Other Non-Metallic Mineral Products</b>	*			
<b>Basic Metals &amp; Fabricated Metal Products</b>	*	***	**	***
<b>Machinery &amp; Equipment n.e.c</b>	**	*	**	*
<b>Electrical &amp; Optical Equipment</b>	**		**	
<b>Transport Equipment</b>	**	*	*	**
<b>Manufacturing n.e.c.</b>		*	*	

Source: Michael Landesman, Roman Römisch, Robert Steher and Björn Gillsäter (2001)

#### Indicators of industrial preparedness

The next step is to indicate how well prepared the individual industries and enterprises are for the new legal environment. We try to quantify the effects of the acquis on the individual industries in order to identify where problems may arise, for example defining needed transitional period for adaptation. In absence of sound industrial investigations we are constraint to use the following assumptions:

a) Goods covered by single market legislation and exported to the EU markets comply by necessity all ready (at least partially) with product-specific acquis. It is assumed that Romanian industries with highly EU-orientation exports are quite well prepared for the single market legislation, provided that the entire industry is EU export-intensive.

b) Industries that have benefited from substantial foreign direct investment (FDI) or have a high rate of foreign participation are better prepared for the acquis consequences.

This can be assumed since the investments have often resulted in modernized production techniques. Industries with significant FDI or a high rate of foreign participation possess the necessary know-how to smoothly introduce the required changes. This know-how includes an understanding of the future costs involved in complying with production-specific regulations in those cases where they do not comply already.

c) Although SME are generally supposed to be more flexible, industries dominated by large companies are assumed to be better prepared for the new legal environment provided that industry has received enough investments which have allowed them to restructure and modernize its facilities.

d) Industries in countries where the legislative process has come further are assumed to be better prepared than those where EU approximation has recently started.

For products covered by EU legislation, EU product requirements can affect both the products' design or require radical changes to the production processes and thereby negatively affect the producers' competitiveness in the short run although the improved product quality and safety will over time compensate for the initial high costs of compliance. Since all current exporters to the EU already have to comply at least partially with these requirements, it can be assumed that the higher the EU export ratio, the better prepared the industries are for the single market. From the moment Romania becomes a member state, all products will have to comply, including those destined exclusively for the domestic market and those imported from non-EU markets.

Therefore, the challenge to the Romanian manufacturing industry is to learn how to efficiently exploit the interfaces of production organization and technology.

The challenge of technology management in the Romanian industrial enterprises today is to develop the organizational capability to combine and recombine new and existing technologies with production and marketing in the pursuit of rapid new product development.

The main challenge to the Romanian industrial firms is to combine Deming model with Schumpeter model: one accommodates the cost, quality and delivery-time performance standards; the other accommodates technological management to drive innovation and competitive strategies specific to time and place. Sustained industrial growth in Romania depends upon making a series of transitions to more advanced technology management capabilities that enhance competitive advantage specific to time and place.

Effective product and service strategy is essential to the future success of the Romanian industrial enterprises. This means producing quality products and services that meet both "essential requirements" and customer needs and compete in the domestic and international market. This does not happen by chance but requires technical and managerial expertise and attention. With an effective product and service strategy, the Romanian manufacturers will be able to increase the effectiveness of the other elements of the marketing mix.

A quality product and service must possess certain characteristics. First, it must respond both to the "essential requirements" and to clearly identified customer needs and value. It must also be perceived as superior to competitive offerings and it must be seen as different by customers and

prospects. In addition, it has often has to solve a previously unsolved or poorly solved problem or offer to customer better value. Finally, it is perceived by customers and prospects as highly synergetic with its supplier's capabilities, skills, reputation, and resources.

Another important ingredient for achieving competitive success is to have a good brand building strategy. In order to be successful, quality improvement programs must be management-led and customer-oriented and this may require fundamental changes in the way Romanian companies and agencies do business. The key in introducing new products and services is to increase the chances of success and reduce the chances of failure. The new product and service planning process facilitates this end. By combining the reasons for success and failure with a sound planning process, new products and services should stand a better chance of succeeding in the marketplace.

Among the more important sectors, the most EU-export-oriented sectors are textiles and textile products; wood processing and furniture; car industry, telecommunications equipment and software industries.

A significant improvement of the Romanian manufacturing industry competitiveness is not possible without radical changes in the current structure of its activities. Without an important inflow of capital, technology compatible with EU standards, integrated management systems and marketing skills coming from global foreign investors, manufacturing industry development is dangerously slow, negatively influencing EU oriented exports and eventually the sustainable economic growth of the country. The Romania's ability to attract FDI, especially in industries with high quality elasticity, depends mainly on the quality of the Government industrial and investment policies.

However, the experience of other countries suggest that, in order for FDI to be the most effectively used for technological and economic progress, there are three important lessons:

First the government needs to be selective with respect to the choice of products and industries in which FDI is to play a role. Second the government must pay attention to the timing and phasing-in of foreign investment. Thirdly the best use is made of FDI when government has a national technology system. A laissez-faire approach to FDI is not advisable. The government has to use industrial policy and impose performance goals on foreign capital to maximize the spillover benefits to the national economy. The danger is that the effectiveness of industrial and investment policy as an instrument of national development could be diluted by its use for political and rent-seeking ends.

Let see now how well prepared the six above-mentioned industries (key business activities on short and medium term) are for the new legal and competitive environment.

Romania's Industrial Policy should combine on short and medium term the intra-industry upgrading strategy with the inter-industry upgrading strategy, i.e. the industrial policy should not only preserve the competitiveness of the traditional price-elastic sectors (textiles and textile products, wood processing and wood products, furniture), but it should also boost the technology driven sectors (telecommunications equipment, automobile and software sectors), which have a medium and high revealed quality elasticity (ROE) and whose export products could be placed in the medium and high price segments. This will generate a quality premium that sets the necessary ground for a sustained growth.

The main competitive advantages of the textiles and textile products, wood processing and wood products and furniture sectors are the following: the distance to the EU markets is short, the labor force is highly qualified and considerably cheaper than in the EU. An average salary of 80-100 USD per month is much more economical than the 1500 USD monthly income in the UE.

Telecommunications equipment, automobile and software are quality sensitive and globalised industries. They are based on permanent research input and sophisticated skills. They have a high rate of investment and technological innovation and generate strong spillover benefits across

economy. They allow the participation of the Romanian economy to the added value chain of MNCs.

### **The wood, wood products & furniture sectors.**

The wood and wood products sector is highly EU export oriented. It has recently benefit from high levels of investment growth, mainly thanks to Gruppo Frati, the main shareholder of MDF Sebes Frati. The largest Italian investment in Romania, the wood processing complex MDF Sebes Frati, which is worth USD 160 millions, was officially inaugurated in October 2000.

The industries covered by the sector are strongly exposed to EU legal environment. The introduction and upgrading of pollution control equipment incur significant costs, such as modern boiler house, waste incineration plants, as well as chip, shavings and dust removal installations. Other environmental problems include sulphur dioxide emissions by the particleboard industry, emissions of Volatile Organic Compounds (VOCs) when using glue for production of wood-based panels as well as regulations regarding the level of formaldehyde in furniture production.

MDF Sebes Frati manufactures plywood, a wood-like material, which is cheaper than wood, as well as melamine faced boards and laminate HPL and CPL boards. The plants currently have a capacity of over 300.000 cubic meters of plywood annually. It also produces resins that observe EU environment protection norms, helping Romanian furniture manufactures to resume exports on EU markets. The plywood produced at Sebes enables Romanian furniture companies to come back to forefront positions. The equipment and the installations of the new plants have successfully passed all the tests regarding pollution. The Italian investor brought cutting edge measurement equipment proving that pollution is below the EU norms. The new production capacities do not require an increased amount of wood as the plants have up-to-date technologies able to use up the residues following wood processing.

MDF Sebes Frati currently has about 200 employees, but other 3000 workplaces will be created due to the development of the horizontal industries (forest cleaning, furniture manufacturing).

Judged locally, the furniture industry owned in 2000, 1,68% of the national industrial production, 6,08% of the Romania exports, and 0,54% of imports. It has provided 37% of the gross added value in the wood industry.

According to the MIR, the production capacity of the Romanian furniture industry amount to about \$880 million. But taking into account the number of employees involved into this industry, its development potential is much more important. Specific studies have revealed that the average productivity of a Romanian worker is \$ 5000 per year, compared to the \$78.000 realized by a EU employee. If in the next 5-6 year, efficient strategies of development would increase the productivity up to \$ 45.000. Romania could reach a level of \$2.7 billion for a number of 60.000 employees.

Today, almost 75% of the Romanian furniture exports are going to the EU, while Romania's market share in EU, has steadily decreased from 18,3% in 1989 to 7% in 2001. Romania furniture exports are low priced but there has been a rapid price catching-up with the EU average.

Among the problems the furniture industry faced in the last ten years, the most important are the lack of a brand name and the lack of designers able to develop new and interesting products. A project supported by PHARE has been already launched. Its goal is to provide better design solutions adapted to the dynamic market requirements.

Due to an already high exposure to the EU markets and due to the recent increase in direct investment, there should be no difficulty in compliance with the *acquis*.

### **Textiles and textile products**

Textiles and textile products industry is still one of the most important industry where Romania enjoy a revealed comparative advantage. Textiles and textile products industry account for 4,45%

from the export of the Romanian economy, from the whole production of the light industry and 12,5% from the whole export of the light industry.

The share market of the Romanian textiles and textile products in the EU markets is of 4,4%. The bulk of trade is conducted with EU. Romania export prices are above EU average. A strategic importance for the future has the branch of pretreatment and spinning of flax and hemp fibres. The industry works in a Lohn system. Today the Lohn system may seem a good solution for assuring jobs but in the following years the industry runs the risk to remain without brand name of international prestige and therefore without significant foreign markets. However, the presence of FDI has recently increased. During the year 2001 the investment in new equipment amounted to about E 47.000.000. There should be no important difficulties in compliance with the acquis.

### **Automobile Industry**

In the road vehicles industry good prospects of development has the automobile industry mainly due to the global player Renault. Over the next three years Renault intends to transform the Pitesti plant of Dacia into a big exporter, through an investment worth EUR 356 million (\$316 million).

This amount does not include investments of about EUR 350-450 million, which are for the next model X90 that will be produced in Pitesti and targets the emerging markets like Latin America. Renault wants to launch the new model X90 in 2004 at a price of EUR 5.000.

The company's objective is to produce 500.000 Dacia cars until the end of this decade out of which 200.000 will be manufactured in Romania. Renault counts on the new model X90 for counter-balancing the Volkswagens success in turning Skoda into a well-known and respected brand name.

During the year 2002 Dacia-Group Renault have invested EUR 40 million for the modernization of the pressing section: ten new pressing machines have been brought from France to Romania and used to build two new assembly lines, for the E7J engines of SuperNova model.

Restructuring also involves focusing on sale processes, while the production of spare parts will be distributed to the domestic specialized firms (spillover benefit).

Dacia Renault started to build its National Center for Dacia Parts which is expected to be ready by next spring. During the first phase, Dacia Renault will invest EUR 7 million.

The center is located in south Pitesti and covers 47,700 sqm. It will sell between 15.000 and 20.000 types of spare parts and accessories for Dacia and Renault models.

The center is a major step forward in Dacia-Renault efforts to impose the concept of original spare parts. The center will have a computerized inventory and will accept orders from abroad." The Renault-Group influence indicates that the automobile industry is well prepared to comply with the production related acquis.

### **Telecommunications Industry**

The telecommunications industry in Romania is a well-established industry producing equipments for meeting the requirements of telephone service, radio communications for police and defence forces, aeronautics, government agencies etc.

The value of the telecommunications industry has amounted to \$515 millions in the year 2000 and to \$ 570 million in the year 2001.

The leading companies in the telecommunications equipment market are: Intrarom, Ericsson, Selectron, Siemens, CIT Alcatel, ENCOM SA (a joint venture Siemens-Electromagnetica), and EMGS-Goldstar (a joint venture Goldstar-Electromagnetica).

Directive 98/13/EC on telecommunications terminal equipment and satellite earth station equipment has already been transposed by the Order of Minister of Communications No.3/1998. General Inspectorate of Communications and IT is the body designed to issue type approval for different equipment, to monitor and control the compliance with the Aquis. A National

Regulatory Authority for Communication is in process of being created and it must become operational by the end of the year 2002.

Its mission is to take the lead in telecoms market liberalization and to transpose and implement Directive 99/5 IEC, which replace Directive 98/13/EC, and the new legislation package approved by the Ministeries Council of EU in the beginning of February 2002.

This package comprises 5 framework Directives on telecommunications sectors: a directive on authorisation procedure, another one on universal service and users rights and three regulations on the policy of frequency allocation.

Overall, there will be no difficulties in compliance with the acquis.

### **Computer Software Industry**

The computer software industry in Romania is a vibrant one, employing about 25.000 skilled software professionals delivering software and services about \$200 millions per annum.

The software industry is meant to an exponential growth as many large corporations are considering Romania as their offshore base for software development.

Microsoft, Cisco, Motorola, Ericsson are among large corporations which have established their subsidiaries in Romania to take advantage of the cheap brilliant software professionals.

There are two success stories in the field of software development in Romania.

Softwin Consulting Inc is a leading software company operating in Sweden, UK, USA, France, Finland, Germany and many other countries. Softwin is very successful in developing cutting-edge technology products, managing technology and cooperation with leading players overseas. SIVECO is a joint venture between a group of Romanian businessmen and Siveco (France). SIVECO Romania is very successful in delivering very flexible software packages built upon the state-of-the art technology of the SIVECO group.

If the SIVECO and Softwin success models could be replicated, then Romania would become an attractive base for software and services development.

Romania has a good potential for developing IT solutions, IT products and IT services. In order to penetrate the international markets and compete with India and Ireland, Romanian companies have to implement Software Quality Assurance and Testing Systems.

The most important improvement models available are:

- SEI's Capability Maturity Model (CMM)
- ISO 9001 (Quality Management Systems)-Tick IT
- ISO/IEC 15504 (Software Process Assessment) or Baldrige (USA) Bootstrap (Europe)
- ISO/IEC 12207 (Software Life Cycle Process)

Software Productivity research (MIS), Trillium (Telecom)

Romanian companies must implement the CMM model or Tick It to make a breakthrough in the European and US markets.

The ITC's assessment of the Romania export capacity in the IT sector is ranked as average at level 6.

In 2007-2008 Romania could reach the level high (7or 8).

The point of these examples is that the Acquis communautaire should be seen as a golden opportunity to make things better.

## Results of questionnaire-based survey on impact of EU quality system within Romanian companies

As seen by representatives of Romanian organizations specialized in quality management education & training and consultancy, Romanian companies are mainly characterized today by following attitudes and behaviours. (Answers are mentioned in decreasing order of their importance, as given by respondents).

### 1. In respect to the Quality Management Systems (according to ISO 9000 standards)

For Romanian companies, the main real motivations to implement and certify such a management system are related to their willingness to improve their own image on the market and to increase the confidence of customers in their products/ services, as well as in themselves.

The most important and usual difficulties/ obstacles in implementing such a management system are related to the resistance to change, the ignoring/ misunderstanding of specific concepts as well as to the existing poor organisational quality culture.

Following most important social effects of implementing such a management system were reported: the increase of employees involvement in solving problems related to their own job position, the improvement of internal communication, the improvement of internal relationship customer-provider, the increase of employees motivation for quality work, the development/ improvement of employees vocational education/ training activities, the increase of employees involvement in solving organization problems, the development of team work, the improvement of management – trade-unions dialog.

For Romanian companies, the most important real economic effects of implementing such a management system would be: the increase in turnover, in market-share, in process effectiveness and efficiency as well as the increase in labour productivity.

### 2. In respect to the European model of business excellence (EQA - European Quality Award criteria, similar to those of “J. M. Juran” Romanian Quality Award)

The EQA criteria are known and implemented in Romania mainly to „a little” and „very little” extent (or even „not at all”). But, certainly, the EQA criteria could be implemented in Romanian organizations to a much larger extent.

### 3. In respect to the European Council Directives related to the New Approach

The role, importance and content of New Approach and related European Council Directives are known in Romania mainly to „a little” and „very little” extent (or even „not at all”). Consecutively, these Directives are actually implemented in Romania mainly to „a little” and „very little” extent (or even „not at all”). Certainly, these Directives could be implemented in Romanian organizations to a much larger extent.

The European standards related to the New Approach are known and applied in Romania mainly to „a little” and „very little” extent (or even „not at all”). The actual main obstacles in knowing and implementing these standards in Romania are the following: the ignoring/ misunderstanding of specific concepts, the existing organizational culture, the lack of financial resources, the resistance to change and even the difficult access to standards (!).

4. In respect to the conformity assessment, products/ services/ systems/ persons certification and organizations accreditation

Role and importance of conformity assessment according to European standards are known and practiced in Romania mainly to a „medium”, „little” and „very little” extent. Compulsory and voluntary/ optional products/ services certifications are also known and practiced in Romania mainly to a „medium”, „little” and „very little” extent. Law 608/2001 on conformity assessment is considered to be very opportune, necessary and useful. .

The real motivations for products/ services/ systems/ persons certification in Romania are mainly related to providers' exports towards EU Member States, USA, Canada, Australia, Japan, etc., in order to increase customers confidence/ satisfaction, as well as to being awarded internal tenders. The real motivations for organizations accreditation in Romania are mainly related to the increasing of customer confidence/ satisfaction, the internationally multilateral recognition, the duplicate the EU practices, the increasing of functional performances of organizations.

The main existing difficulties/ obstacles hindering the extension in Romania of certification and accreditation practices are the following: the lack of financial resources, the ignorance/ misunderstanding of specific concepts, the large gaps between existing practices and those recommended by standards, the first priority given to personal interests, the resistance to change, the provider-oriented operation.

#### QUALITY PROMOTION POLICY

The origins, objectives, and implications of European quality promotion policy are known in Romania mainly to a „medium”, „little” and „very little” extent. Only very few respondents founded that this policy would be not at all implemented in Romania. But all respondents expressed the pressing need and the opportunity of a Romanian quality/ competitiveness promotion



## Section 4. Recommendations to the Romanian government

In addition to the specific recommendations already made at appropriate points in Chapter 2, we propose the following:

1. Clarification of the complementary roles and responsibilities of the different involved entities (public and private), a new participative culture with a view to confront with efficiency the competitive markets

In a free-market based economy, Governmental organizations are involved in a mobilization of all the economic and social actors with the view to developing new skills, new “know-how”, new mechanisms, new entities ( or to redefine the role of existing ones ), to better define, in common, priorities, objectives, resources etc.

### Prerequisites

-Political willingness of Romanian Government to involve itself in open and competitive policies & strategies together with Governmental agencies, Trade Unions and Employers' Associations as well as with non-governmental organisations and other actors/ partners

-Political willingness of Romanian Government to adopt quality management systems within most important central and local public administration organisations

**-Political willingness of different involved entities - both public and private - to implement new participative/entrepreneurial culture and management with a view to confront with efficiency the competitive markets**

### Advantages

-Intelligible, appropriate and non-redundant roles and responsibilities of all actors/ partners involved in partnerships for quality promotion and consumer protection in Romania

-Improvement of efficiency and effectiveness of National Systems favouring quality management and consumer protection

-Improvement of efficiency and effectiveness of central/ local public administration

-Development of partners' mutual confidence

-Improvement of Romanian business environment

-Raising of foreign industrial investments in Romania

-Improvement of Romania's macroeconomic indicators

### Detailed Proposals

-Initiating regular meetings to explain, inform, discuss define and organize collectively these new approaches and mechanisms,

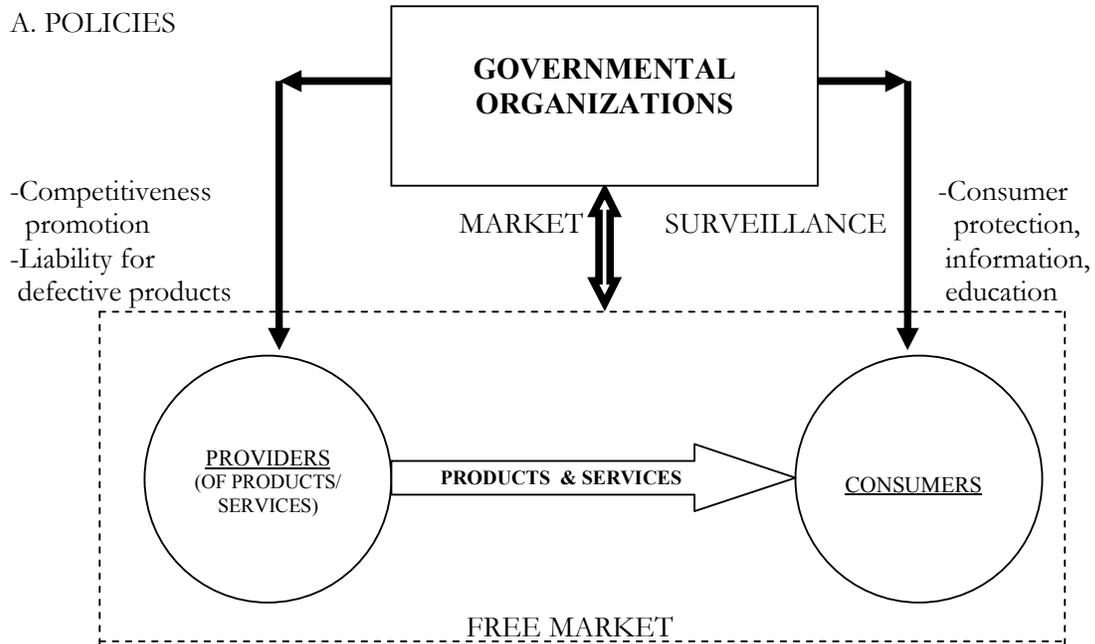
-Collecting experiences from the different partners with the view to increase the knowledge and the know-how,

-Launching some experiments to demonstrate and support ways, processes, means of progress,

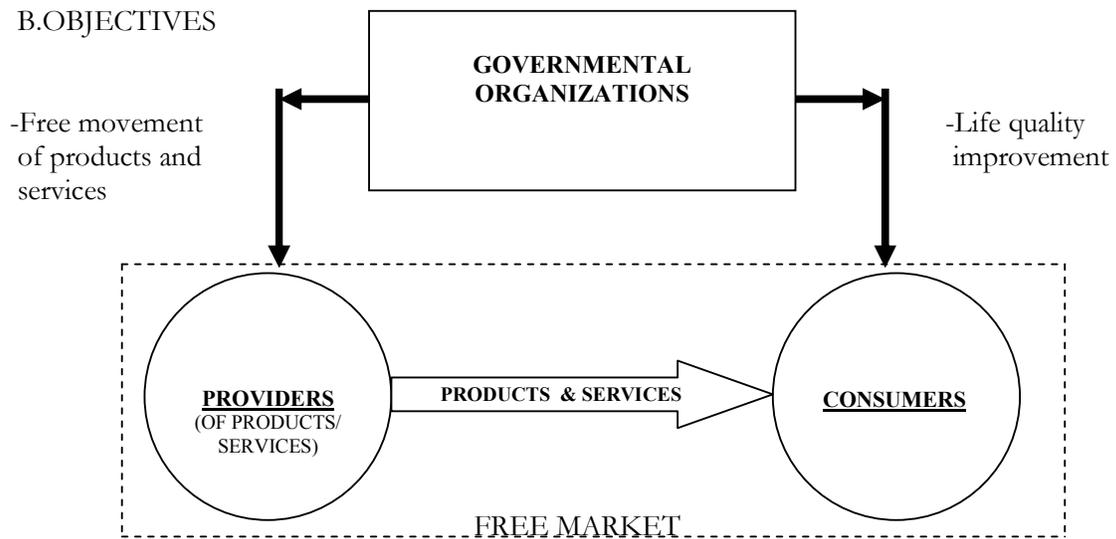
-Dedicating resources ( human and financial ) to create a dynamism and to speed up confidence and progress.

**Fig. 4.1 - Involvement of Government in macroeconomic quality policies and objectives, within the free market economy**

**A. POLICIES**



**B. OBJECTIVES**



2. Collective and participative elaboration of national policies and strategies using in the best way all the structures and processes of the quality system

#### Prerequisites

-Political willingness of Romanian Government to involve itself in elaboration of national quality policies & strategies together with Governmental agencies, Trade Unions and Employers' Associations as well as with non-governmental organisations and other actors/partners

-Political willingness of all involved partners to accept that elaboration of national policies and strategies should be a collective and participative process involving all interested parts (stakeholders) and guaranteeing their participation both in decision and implementation processes.

-Political willingness of all needing involved partners to accept essential education & training in quality management matters of their representatives

-Availability and effectiveness of operational structures and processes of national quality system

#### Advantages

-Generation of efforts' synergy

-Adoption, on an empathic basis, of most appropriate quality management policies and strategies oriented towards customer satisfaction and based on a continuous improvement approach

3. Building a Coaching Shared System for economic operators and using information as a strategic resource to cope with the pressures of competition.

In a context of globalization of production and markets, the "raw material of information" has become the decisive performance factor. The countries, the public institutions and private economic operators with competitive advantages are those that achieve success in the creation and distribution of information and in the efficient conversion of this information into knowledge.

All facts suggest strongly that the Romanian industry need to have a global orientation in developing marketing strategies and tactical programs. A global marketing perspective is not a luxury but a necessity in contemporary industrial marketing. The lack of a powerful marketing tool is a major weakness of the Romanian industry.

Marketing decisions cannot be made without the benefit of relevant and accurate information. It is virtually impossible to segment industrial markets without sufficient knowledge of the market environment. Whether segmentation is based on geographic, demographic, buying process, benefit or product characteristics, it cannot be performed effectively unless current, accurate and relevant information is obtained. Benefit segmentation, for example, requires a thorough understanding of what benefit are important to buyers in different segments. Segmentation by product attributes requires a thorough understanding of which attributes are important to buyers and buying influences.

The first step in any marketing planning process involves an analysis of the current marketing situation. This means information gathering must take place before markets are selected objectives are set, strategies are developed and tactical plans are implemented.

The same logic applies to decision making in the marketing mix areas of product and service, distribution, promotion and price. Functional managers, such as product managers, sales managers, etc., require input from the market to develop realistic strategies and programs. For example, product managers cannot determine product specifications without some input from the market; advertising managers require information regarding the wants needs and expectations of the buying influences involved to be able to determine which media and copy to use; and pricing managers can hardly set fair prices without knowing the value of the product and services to present and potential customers.

In order to play their cards well in the international area the Romanian economic operators need relevant information to objectively appraise what resistance will be encountered and what difficulties will have to be overcome in marketing to these foreign customers. Providing these various types of information to those who will use them is the task of the intelligence-gathering process. This is why our emphasis is placed on the need to set up and develop in Romania through a public-private partnerships a Coaching Shared System for economic operators, able to increase awareness of the subtle interdependence between different dimensions of the global competitive process.

The components of the Coaching Shared System are the following: a networking task force at national level and a Public Industrial Marketing Information System (PIMIS).

The network should join all the interested parties, public and private, technical staff and current and potential exporters: MIR, ASRO, RENAR, BRLM, conformity assessment and certification bodies, Romanian Center for Foreign trade, CEMATT, Chambers of Commerce and Industry, foreign trade agents, trade advisers, professional organizations, counselors from the main commercial banks.

Each member of this network will make available and will support financially the best specialists in the key-fields who will be included in a permanent task force. All partners must have an ability to provide commitment and predictability in areas crucial to the success of export activities.

Within the task force the complementarity of skills and agenda is vital. In order to facilitate and keep going a joint problem solving, all parties contribute relevant information to process and benefit from the information generated by the process. In addition to open and trusting communication, there should be a clear definition of roles and operating areas for each partner.

The members of this task force should have a quite sophisticated profile. The core technical expertise alone is not enough to cope with the problems to be solved. Extra special skills in communication, mediation, interaction, negotiation, marketing data-base management are needed as well as a deep knowledge of legal, commercial and financial practices from all countries that are important export markets for Romania. The decisive factor remains their basic capability to analyze process, structures, contexts and interests.

Therefore the members of this task force must be trained in such a manner to make them capable either to meet the enterprises' requirements or to orient the companies to other supportive sources of expertise within the system.

The Chambers of Commerce and Industry could play a decisive role in this new context, on one hand because of their function is that of informing, training, supporting and on the other hand because of their dissemination power due to their territorial network and their proximity to the enterprises.

The collection of marketing intelligence is the main mission of the Coaching Shared System. The collection of marketing intelligence should be selective and deliberate if it is to be used to advantage. It should be selective in terms of specific objectives and in choosing those sources of intelligence most likely to produce valid information. The networking task force should analyze all of the various sources that can provide such information and then develop a Public Industrial Marketing Information System (PIMIS) to ensure the flow of desired information.

*Figure 4.2* illustrates that conceptual framework of the PIMIS as it should be applied to economic operators in industrial markets. The rationale behind this model can be described as follow. The networking task force collects information regarding the foreign target markets from a variety of sources. Some of the information is primary in nature and some of it is secondary: some of it is internal and some is external. The task force then classifies, records and up-date this information, using that is needed immediately and storing other data that are known to have future marketing applications.

This information is then structured in such a way that it will become a sound basis for economic operators formal marketing plan, helping them to formulate a realistic strategy. Finally, the data that have been collected, structured and adapted are used as an input into the products and services to be offered, the prices to be charged, the promotional methods to be used and the distribution changes to be enacted.

Once such decisions have been made, the process begins again and again in terms of customer reaction to the decisions that have been made and competitive reactions to the decisions.

Because the PIMIS never ceases to collect monitoring data from target international markets, it provides the Romanian economic operators with the continuous flow of marketing intelligence required for intelligent decision making.

The basic function of the PIMIS is to collect, record, store, up-date, analyze and distribute on a continuous basis the right market data to the right economic operators at the right time. The logic of the PIMIS is hard to refute: if the target markets have the ultimate ability to accept or to reject a product or service, an advertising campaign, or whatever (which it does), then it is imperative that attitudes, and expectations in the target market be considered before the decision is made. Making business marketing decisions without input from the marketplace appears illogical and dangerous, considering the intensity of competition faced by most Romanian exporters. The PIMIS is intended to provide information about customer requirements, competitive moves and so forth before crisis situations are reached. If properly implemented, the PIMIS can be preventive as well as curative for the Romanian exporters.

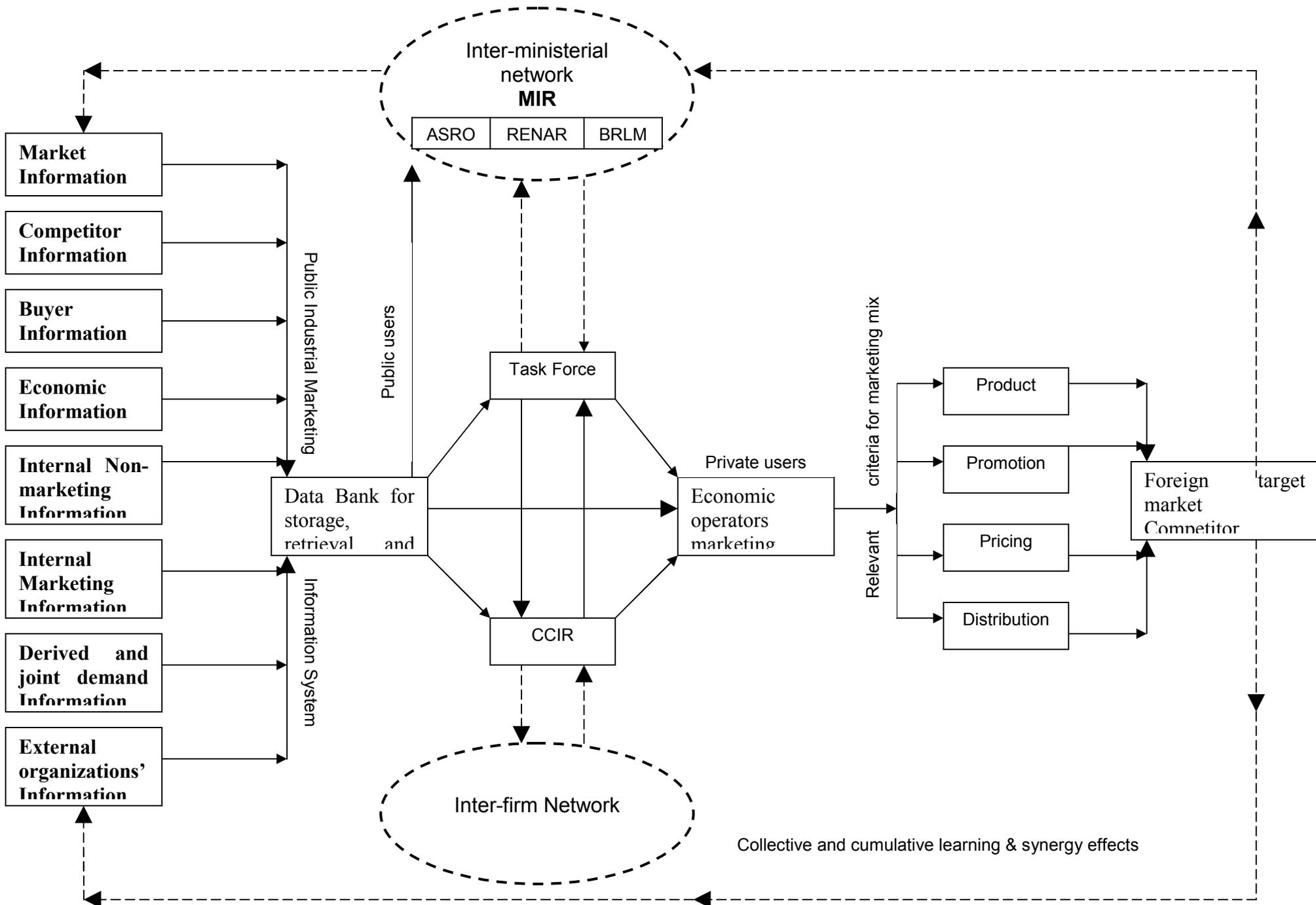


Fig. 4.2 A Coaching Shared System for economic operators; information as strategic resource

A sound PIMIS can typically provide different types of surveys, reports and even monographs such as “Doing business in France, Germany, S.U.A., Israel, etc”-on regularized and predetermined schedules.

A complete PIMIS should be designed to incorporate those types of information necessary to give the Romanian exporters the ability to compete in an effective manner.

Some information areas are central to any good PIMIS. These areas may be classified as shown in the Table 4.1, which also illustrates types of sources commonly, used to obtain the needed information.

The development of a comprehensive PIMIS provides the Romanian manufactures with such advantages as:

- 1) Greater profitability based on market segments (macro and microsegmentations);
- 2) Reduced marketing expenses and tighter cost control;
- 3) Quicker recognition of forces and events affecting sales and profits
- 4) Documented decision support for strategic and tactical planning;
- 5) Improved distribution efficiency;
- 6) Improved marketing performance control and evaluation;
- 7) Greater accuracy in forecasting and budgeting;
- 8) A strategy planning database that permits faster and more accurate evaluation of options.

PIMIS provides also the Public Authorities with such advantages as:

- 1) Monitoring the dynamics of the competitive advantages
- 2) Sound basis for proactive strategy making
- 3) Assessment of risks that economic operator's face
- 4) Possibility to established a sectoral development index
- 5) Just in time supportive tactical action programs.

Studies of industrial sociologists make available a rich body of evidence that shows how narrow specialization of the public and private institutional functions and a lack of integration among them can stymie the efficient utilization of the quality instruments and the triggering of innovation process. The Coaching Shared System's raison d'être is its very power of integration and self /correction. When the basis for the generation and transmission of learning is this kind of system, which stresses the process of reciprocal assimilation and accommodation, public policy makers and private corporate strategic decision-makers are integrated into the networks of relations that underly it.

They become partakers within the learning to allow strategy and learning to interact in an innovative manner.

The integration of strategy and learning facilitates a developmental interaction of strategy and learning in which strategic decisions actively shape the direction and structure of learning and the knowledge continually generated through learning informs strategy.

Implementation of a Coaching Shared System for economic partners makes gradually possible the attainment of ends that were previously considered impossible. Given its stake, the Coaching shared system that Bernard Vaucelle and Serban Broche propose is more than an academic working hypothesis: it is the very road that leads to success.

Table 4.1 Informational Areas in the Public Industrial marketing Information System (PIMIS)

Informational Areas	Types of information to include	Information Sources
Market Information	Target market characteristics such as size and growth rates, seasonal and cyclical trends, conformity assessment infrastructure, geographic distribution, number of firms, strategic alliances, power centres, technology intensity	SIC - related sources, trade associations, trade journals, marketing research organizations, outside marketing consultants, standardization and accreditation bodies, technical research institutes
Competitor Information	Intensity of competition, number and location of competitors, competitor strengths and weaknesses in terms of products, channels, distribution, sales, advertising and pricing, sales volumes by product, market customer type, pace of innovation	SIC - related sources, trade journals, trade shows, field salespeople, suppliers, intermediaries, product catalogues, business research centres
Buyer Information	Purchasing policies and processes, buying centres, buying influences, buyer motives of present and prospective customers Purchasing policies Purchasing procedures Buying process used Composition of buying centers Average order size Frequency of purchases Conformity assessment procedures, safety testing requirements and quality certification requirements Just - in - time vs. EOQ Buyer motives (personality, attitudes, self - image, risk tolerance, decision - making style, cognitive style)	Marketing research, field salespeople, channel intermediaries , trade reps, marketing consultants
Economic Information	Interest rates, exchange rates, balance of payments, gross national product, inflation, consumer confidence index, sector development index	Government publications, trade journals, business publications
Internal non - marketing information	Production capacity, R&D capabilities, engineering capabilities, financial situation, purchasing capabilities, top - management perspective, corporate goals and mission	Production, engineering, R&D, purchasing, finance department records, and related information
Internal marketing information	Product quality, product lines, service and product support; distribution channels; sales force size and competence, advertising and sales promotion effectiveness and pricing competitiveness	Product manager, sales manager, field sales people, distribution manager, advertising manager, sales and marketing records
Derived and joint demand information	Size and growth rates of business customers' target markets, preferences and buyer motivations in those markets	Business customers, marketing research centers and consultants, international industrial outlook
External organizations' information	Capabilities of suppliers, distributors, manufacturers' representatives, warehouse, freight forwarders, transportation companies, financial intermediaries	Records of organizations' references from their customers, marketing research, past company records

4. Setting up, urgently, a definition and a promotion of a national quality promotion policy which could be transposed and adapted to all economic partners (specifically companies)

#### Prerequisites

Political willingness of all involved actors/ partners to draw-up and to promote effective and efficient national quality promotion policy and strategies

#### Advantages

Improvement of Romania's capability to integrate UE

Improvement of Romania's credibility on the global market

Development of Romania's economy competitiveness

Improvement of business environment in Romania

#### Detailed Proposal

Drawing-up and implementation of national quality policy are primarily the responsibility of national authority (Government), in co-operation with all actors/ partners involved within Romania's national quality system (see Table 4.2.). Romania's Government is already involved as source of public interventions in the quality field through existing macroeconomic industrial, research, SME and social policies. It should be also one of the major motors of any promotion activities in favour of national industry competitiveness

But the most important actors of quality policy must be, first and foremost, the economic operators themselves. Without their involvement no progress can be made. Consequently, their representatives have to participate in the processes of drawing-up and decision of the national quality policy. Further, based on the commonly established macroeconomic quality policy, they will adopt appropriate microeconomic quality policies.

Other actors participating in quality policy establishment and implementation are the following: quality organisations, trade associations, universities, trade union, employers' organisations, NGOs for consumer protection, etc. All these actors may contribute in a consistent manner to the furtherance of the quality messages mainly through their usual activities.

Romania's national quality policy will intend to place the human element in economic decisions firmly in the front line. Competitiveness must have positive spin off for the citizen, for the consumer and for the worker, for it to be considered as beneficial to society at large. Within this goal, representatives of traditional social partners – Romania's Trade Unions, Employers' Associations and Government – as well as representatives of professional and quality organisations, economic operators and of other organisations will co-operate with representatives of National Systems for quality management and consumers' protection in order to establish and to implement quality policies & strategies at macro- and microeconomic levels.

Table 4.2 RESPONSIBILITIES WITHIN THE NATIONAL QUALITY SYSTEM

AREAS OF THEIR FUNDAMENTAL RESPONSIBILITIES	ACTORS/ PARTNERS OF NATIONAL QUALITY POLICY				
	Economic operators (providing products or services, large, medium or small, public or private, etc)	Quality organizations (QM Education & Training, Consultancy, conformity assessment infrastructure, etc)	Other organizations (trade associations, universities, trade unions, NGOs for consumer protection, etc)	Romanian Members of European professional organizations (ASRO, BRML, RENAR, ARC, FRPC, FPRC-JMJ, etc)	National authorities (MIR, ANPC, etc)
1.National Quality Policy establishment	C,D	C,D	C,D	C,D	E,I,C,D
2.Legislative framework	C,I	C,I	C,I	C,I	E,D
3.Standardisation	C,I	C	C	E,D	C
4.Metrology	C,I	C	C	E	D
5.Testing, certification, inspection	C,I	E,D	C	E,D	C
6.Accreditation	C,I	E,D	C	E,D	C
7.Quality Management	C,I,E,D	E,D	C,E	C,D	C
8.Mutual Recognition Agreements	C	E,I,D	C	E,I,D	C
9.European Conformity Assessment Agreements	C	E,I,D	C	E,I,D	C
10.Romanian National Quality Award	C,I	C	C	E,I,D	C,I
11.Benchmarking	C,I	C	C	E,I,D	C
12.Customer Satisfaction Index	C,I	C	C	C	E,D
13.System for Qualification & Certification of Quality Professionals	C,I	E,I,D	C,I	E,I,D	C
14.EURO INFO CENTER	C,I	C	E,I,D	C	C
15.Quality Publications	C,I	E,I,D	C	C	C
16.Sectoral Quality Management (Central/ local public administration, Education, Health, Agriculture, Transport, Building, etc)	C,I	E,I,D	C,I	C	E,I,D
ROLES	-Major wealth providers -Motor of national economy	-Promoting quality policies; -Information and motivation of company managers	-Contribute to the furtherance of the quality -Creating necessary incentives	-Developing appropriate tools and disseminating them	-Drawing-up and implementation of national quality policy

Abbreviations: E = establish (set up), I = implement (give practical effect to), D = decide (reach a decision), C = co-operate (act/work together)

Existing consultative bodies - the Inter-ministerial Council for Quality Infrastructure and Harmonization of Technical Regulations (CIICART), the Inter-ministerial Committee for Surveillance of Products & Services Market and Consumer Protection (CISPPSPC) and the Consultative Councils for Consumer Protection (CCPC) - will co-ordinate their actions and will co-operate one with another as well as with UCSNC-MIR

Proposed Structures of national systems for quality management and consumers protection (as well as their missions) are presented in the Table.4.3.

The national quality promotion policy is aiming to give political visibility and support to a nation-wide range of quality instruments and actions, in accordance with the European quality promotion policy, with some other existing Romanian macroeconomic policies - for example the industrial policy - as well as with some already existing Romanian microeconomic quality policies.

This policy will be elaborated by collective and participative work of representatives of all interested public and private stakeholders. It will be accompanied by elaboration of adequate strategies, plans and programmes. It should be transposed and adapted by all interested public and private economic partners (stakeholders).

This policy will include following objectives:

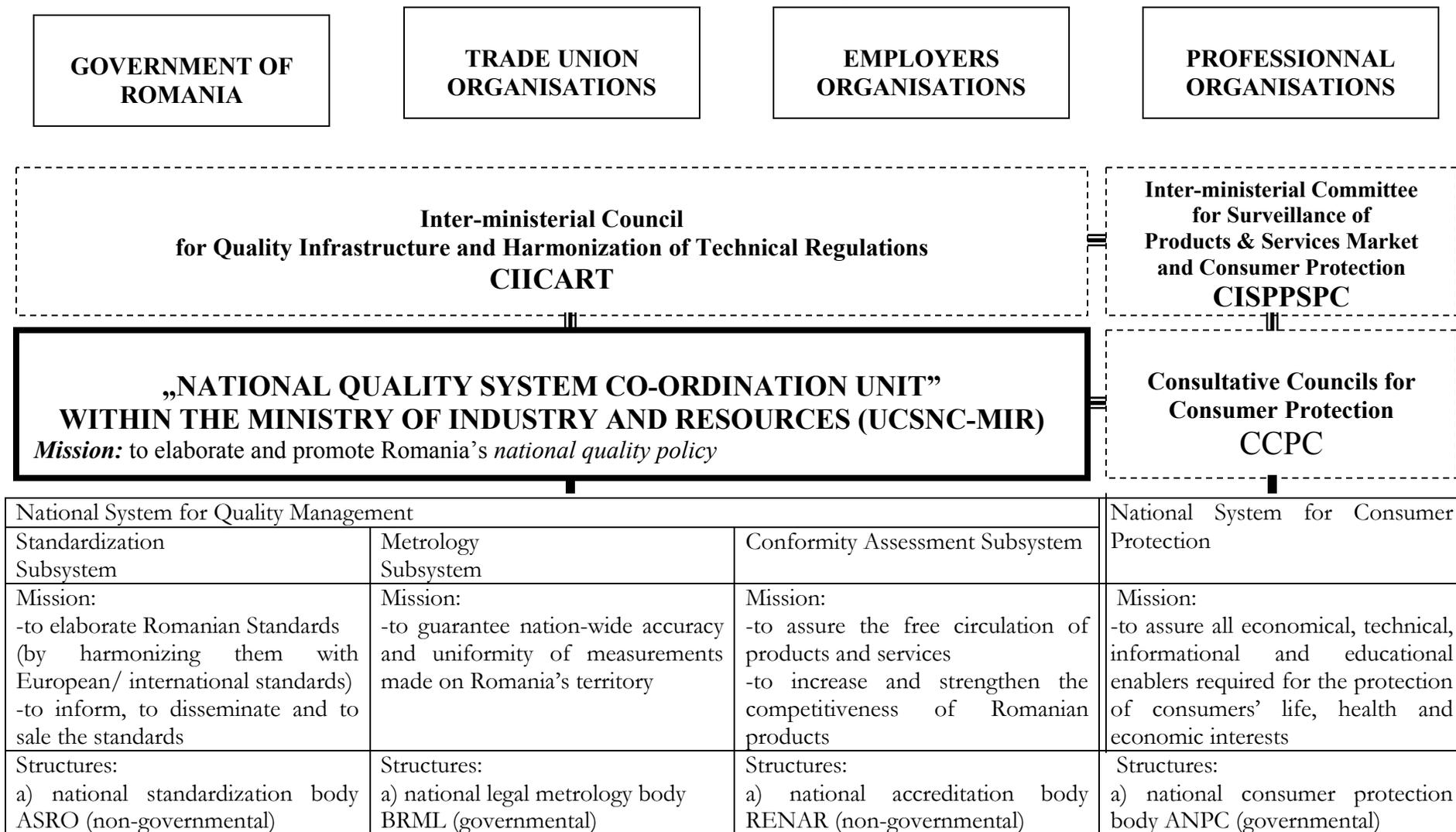
A. Definition and implementation of a national standardization sectorial policy, based on following actions:

- Adoption of all EN, CEN-CENELEC and ETSI standards related to the New Approach directives as harmonized national standards (SR)
- Promotion - within economic operators - of voluntary standardization principles and advantages as well as of Romanian standards, of professional standards and of firm standards
- Publishing and distribution of Romanian standards (SR) within specialized, regularly updated collections
- Facilitating the free and costly access of interested public to ASRO collections of Romanian and foreign standards (mainly by a dedicated website)

B. Definition and implementation of a national competitiveness development sectorial policy, based on following actions:

- Adoption of all New Approach Directives as Romanian laws
- Promotion of principles governing the liability for defective products
- Establishment of benchmarking initiatives in model organizations from Romania and EU Member States
- Development of specific information systems and training actions dedicated to the economic partners, mainly in the industrial and services fields, both at national and regional levels
- Promotion of ISO 9000 quality management systems, of ISO 14000 environment management systems as well as of European excellence model
- Involvement of Romanian companies in European actions linked to the European Quality Award, European Quality Week, European Quality Observatory, etc

**Table.4.3. – Structures of the National Systems for Quality Management and Consumers Protection**



b) sectoral standardization bodies (to be authorised by MIR, on the base of ASRO proposal)	b) national technical metrology body INM c) National Register of Calibres d) metrological/ calibration laboratories (to be accredited)	- with accreditation b) certification bodies for products, quality/ environment management systems, personnel c) inspection bodies d) testing laboratories - without accreditation e) QM education & training and consultancy organisations	b) other governmental structures dealing with market surveillance c) departmental network of OJPC (governmental) d) non-governmental organizations for consumer protection (APC and other) e) departmental network of APC
References: -EC Directives -European/ international standards -National Law on standardization	References: -EC Directives, OIML Documents -National Law on metrology -National metrological standards and norms (“instructions”)	References: -EC Directives, Agreements -National Law on conformity assessment -International/ European/ national standards, procedures	References: -EC Directives, Agreements -National frame Law on consumer protection -National standards
Basic Romanian legislation: -Government Ordinance 38/1998	Basic Romanian legislation: -Government Ordinance 20/1992 -Government Decision 853/1999	Basic Romanian legislation: -Government Ordinance 39/1998 -Law 608/2001 -Government Decision 71/2002 -Government Decision 57/1999	Basic Romanian legislation: -Government Ordinance 21/1992 -Government Decision 166/2001 -Government Decision 251/1994
Representative Romanian structures: ASRO	Representative Romanian structures: BRML, INM	Representative Romanian structures: RENAR, ARC, RENA, FRPC RC-EOTC, FPRC-JMJ	Representative Romanian structures: ANPC, OJPC, APC

- Promotion of quality management issues and of market-driven and customer-oriented managerial culture in all public organizations (including central and local public administrations)

5. Definition and implementation of a national consumer education sectorial policy, based on following actions:

- Designing of effective and efficient market surveillance system (by ANPC and other governmental bodies)
- Providing education and training of consumers concerning the ways and methods to be used in order to protect their own rights and interests (by mass-media and non-governmental consumers' and quality promotion organizations)
- Elaboration and implementation of comparative testing standards and procedures (for beginning, at least for the most important consumer goods sold in Romania) and economy publication of their results in a nation-wide distributed publication, in order to make Romanian consumers able to assume and enhance their roles within the free market
- Adoption of the basic European Customer Satisfaction Index model, definition and periodical evaluation of a Romanian Customer Satisfaction Index

6. National plan of information, communication and training

Prerequisites

Political willingness of all involved actors/ partners to improve their communication and their education & training in quality management matters, for the betterment of their skills, background and quality capability

Advantages

- Higher effectiveness and efficiency of written and oral communication
- Better skills for quality management implementation

Detailed Proposals

This plan will include the following actions:

- Implementation of a Coaching Shared System (described by Recommendation no.4.2.) including all actors/ partners of Romanian quality system
- Establishment of formal partnerships agreements between different component subsystems and partners (including adequate objectives, reciprocal responsibilities, indicators, target values and dead-lines)
- Creation, operation and maintenance of effective interactive websites for each actor/ partner involved in the Romanian quality system
- Establishment and regular publishing & distribution of a dedicated publication providing to consumers reliable, accurate and complete information about quality and price of market available products and services.

- Elaboration and regular printing & distribution (mainly through consumer protection NGOs) of dedicated information leaflets, brochures and other publications aiming to inform and educate consumers.
- Elaboration/ translation, printing and distribution (mainly through booksellers) of sound and comprehensive books on quality management matters
- Introduction of consumers' education topics in the curricula of all primary and secondary schools as well as, optionally, in the continuous education schools
- Introduction of quality management topics in the curricula of all public technical and economic higher education schools
- Organization of specialized Masters and Doctorates in quality management, based on standards, procedures and good practices of European universities.

7. Adaptation, reinforcement, allocation of consistent resources (human, financial, equipment)

#### Prerequisites

Political willingness to allocate consistent resources to Romania's national quality system

Political willingness to implement accountability principles, methods and tools

#### Advantages

Achievement of objectives of National Plan for Quality Promotion (see Recommendation 4.4.)

#### Detailed Proposals

- Identification of all relevant needed financial, material, human, informational and energetic resources
- Establishment of amounts of each relevant needed financial, material, human, informational and energetic resources
- Adaptation, reinforcement, allocation of established consistent resources
- Implementation of control methods and tools enabling to know precisely and in detail how resources were spent
- Achievement of National Plan for Quality Promotion (see Recommendation 4.4.)

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