

# STANDARDIZATION AND ITS ROLE IN PRESCRIBING QUALITY

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**Abstract:** : Standardization activity which by its applications, has an important impact on the economy and society, is the main tool for regulating the quality of products. Products' standardization must pursue simultaneously the requirements of producers, traders and consumers. The paper presents some aspects of standardization issues lead us to understand its importance in prescribing quality

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## 1. INTRODUCTION

Standardization is the main tool for regulating food quality. Standardization applications relate inter alia: units used in prescribing quality, terminology and symbols, foods and methods for determining product quality (design and choice of food characteristics, methods of test and measurement, specification of product characteristics for defining quality, requirements for packaging, marking and labeling) safety of persons and property.

Romanian Standard SR 10000-1/1994<sup>60</sup>, has presented the following definition of standardization: "Standardisation is the specific activity that are established for real and potential problems, provisions for common and repeated use, aimed at achieving optimum degree of order in a given context ". So standardization is essentially the drawing up and implementation of reference documents called standards.

The standard is a document established by consensus and approved by a recognized body that provides - for common and repeated - rules, guidelines or characteristics relating to activities or their results, guaranteeing an optimal level for the community as a whole<sup>61</sup>.

## 2. ABOUT STANDARD AND STANDARDIZATION

According to EEC Directive 83/189, "standard is a technical specification approved by a recognized standardization body used for repeated or continuous application, with which compliance is not mandatory".

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<sup>60</sup> **Standardul SR 10000 - 1/1994** - *Principiile și metodologia standardizării. Termeni generali și definițiile lor privind standardizarea și activitățile conexe.*

<sup>61</sup> **Ghidului ISO/CEI 2/1996**

The European Union is interested in preventing the occurrence of standards in terms of technical barriers to trade.

The main features of a standard, are as follows<sup>62</sup>:

- the standard is not mandatory, because is based on a consensual agreement of stakeholders (producers, distributors, consumers and government). The standard is designed for all those who want and is applied to all who want.

- the economic factors at the national, regional and international level have different technical and technological possibilities, many of them being below the standards achieved. It would be unfair for them to be removed by the mandatory standards. The production under standardized level can be less expensive, but these products are less demanded by the market, which negatively affects the activity of persons that acting to pursue this path. The consumer will be the one to decide whether to buy the product or not.

- the standard is elaborated by a recognized body may be national, regional or international.

- the standard is for common and repeated application, it giving it a great efficacy.

- the standard, through its content is a tool that provides an optimum degree of order in business, encouraging the creation and growth for the benefit of the community as a whole.

Standardization topics are chosen by the stakeholders, which mainly are: manufacturers, industrial users, consumers and public authorities. They participate active in standardization work due to the advantages they can provide it.

Through standardization it ensures<sup>63</sup>:

- simplify the increasing diversity of products and procedures for standardization contributes to people's lives: remove items that complicated, difficult and expensive production and use, products characterized by essential properties.

- compatibility and interchangeability, which means that standardization allows for some game types and sizes of parts and compatible products in terms of dimensions, shapes and properties that allow dimensional and functional interchangeability (food being useful and standardization of packaging).

- security, health, life and environment protection because standards are included requirements concerning safe operation of machinery, equipment, buildings and installations and requirements that limit or remove the harmfulness of products or processes on the environment

- ensure consumer protection because: products bearing the brand standards offer a guarantee that they meet customers' needs through the features included in standards, product quality is guaranteed, and by prescribing conditions for packaging, transport, storage and storage ensures and maintaining technical quality throughout the circuit from producer to consumer.

- acilitating communication between producers and users, meaning that standardization provides a common language through terminology, coding and unique symbolizing in different areas internationally accepted.

- removing barriers to trade, assured by: references and references to standards that are in economic contracts, prevents technical barriers to trade, the use of

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<sup>62</sup> [www.asro.ro](http://www.asro.ro)

<sup>63</sup> [www.consumersinternational.org](http://www.consumersinternational.org).

international standards or harmonized European may allow the elimination of obstacles to trade in goods.

- reducing market uncertainty means that the existence of appropriate and stable set of standards creates more transparency in competitive market situations and thus short-term investment decisions are more easily taken.

- efficient use of materials, energy and human resources because standardization is based on the combined results of science, technology and experience, providing the best solutions: better use of material and energy resources, using the maximum efficiency of production capacity, reducing consumption and manufacturing costs, and increase productivity.

*After content standards are the following types of:*

- basic standard, which has a general application or which contains general provisions for a particular area;

- terminology standard, which specifies the terms, usually along with their definitions and sometimes notes, illustrations, examples, etc. (eg. standard STR branch 3006-81 - Sensory analysis. principles, concepts, definitions.)

- test standard, which specifies test methods, sometimes accompanied by other provisions relating to the test, such as sampling, using statistical methods, order tests (eg, SR 90-97 - Wheat flour. methods of analysis);

- process standard that specifies the conditions that must be satisfied by a process;

- product standard, which specifies the conditions to be fulfilled by a product or group of products to ensure their usability (eg SR 13445-2001 - Wine. Technical condition of quality);

- service standard, which specifies the conditions that must be satisfied by a service, to ensure its usability;

- interface standards, which specify conditions relating to products or systems compatibility in their points of connection.

- data standards that can be set, which contains a list of features whose values are given for the description of a product, process or service;

Based on the standard classical typologies based on the nature and content, the conception of French origin on food standardization offers a better differentiation based on the scope:

- a) standards specifications for the product;
- b) environmental standards of the products;
- c) standard method of analysis and testing;
- d) standards guidelines;

This classification seems better adapted to the specific problems and opportunities for development of standardization in this area of activity.

After the standardization level, standards are:

- international standards adopted by the International Standards Organization (ISO);

- regional standards adopted by a regional organization for standardization, most notably being the European standards (EN);

- national standards adopted by a national standards body (SR);

- professional standards adopted in certain industries, professional organizations, legally established

- industry standards adopted by a certain sector of the economy (STR) (for ex. standards for milling and baking industry, dairy industry standards, etc.);
- corporate standards adopted by companies, autonomous or other legal person (SF). They are based on professional standards.

Regulations (laws, decrees) are documents providing binding legislative rules. They are adopted by a legislative authority. When certain features are not specified in the standards, when reference is made to the rules governing the limits within which you must find the values of those characteristics.

Regarding international food standardization, we appreciate that ISO develop standard test methods, specifications and standards for agricultural raw materials. These standards must be distinguished from documents called "Codex" (normes Codex), which refers specifically to product specifications. Both ISO and the Codex, however, be taken into account when developing standards or technical regulations mandatory EEC to harmonize the common framework needed to promote trade and removing barriers them. As of July 1989, the Codex Alimentarius acknowledges that CEE accepted Codex standards as far as its member states have granted jurisdiction in the matter. Commission of the Member States pledged to seek delegation of powers to the EEC to accept Codex standards consistent with the objectives and regulations already adopted (eg fruit juice).

The Codex Alimentarius Commission was created in 1962 under the patronage double FAO / WHO and comprising representatives from 133 countries. It aims to develop uniform as a recommendation, which include requirements on food hygiene, waste, pesticides, food additives, contaminants, labeling and presentation, methods of analysis and sampling. These rules published in a "Codex Alimentarius" are designed to facilitate international trade and ensure consumer health.

Its secretariat is located in the Division of FAO food and nutrition policy. Participation in the work of this organization is open to all members and associate members of FAO and WHO, and other nations who so requests. The Codex Alimentarius Commission has its own status and operating rules contained in the Manual of Procedure of the Commission. It operates through its various committees and subsidiary bodies which, like the Commission, intergovernmental. Codex work is divided between:

a) subsidiary bodies as it deems necessary to carry out project work completion standards: Joint FAO/WHO Expert governmental code of principles on milk and milk products (established since 1958);

b) subsidiary bodies as Codex Committees.

Codex Alimentarius is a collection of international food standards adopted and presented in a uniform manner, established to protect consumer health and ensure loyalty in trade in food items. Contains also provisions consultative form of user codes, directives and other guidelines for the Commission's goals. Publication has the aim coordinating and promoting the development and establishment of definitions and requirements to food, to harmonize and facilitate their international trade<sup>64</sup>.

The general structure of a Codex standard for processed food usually consists of the following sections:

- standard name;

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<sup>64</sup> www.europa.ro

- scope that defines the types of products, their presentation and their conservation and explanations of terminology;
- description, which includes:
  - definition of product (s), the structure of raw materials used, the specific technological process that ensures storage stability and guarantee food security;
  - the presentation, both of the product and the packaging used, the type of applied conditioning, size, dimension, size of the product pieces, if necessary.
- essential composition and quality factors:
  - essential ingredients;
  - optional ingredients;
  - predominant chemical composition;
  - critical factors of quality, organoleptic and physico-chemical features.
- food additives nominees and expressed as maximum allowable concentration calculated on the net contents of the product;
- hygiene - are usually referring to the Code of Practice recommended international hygiene product concerned. Also recommended specific methods of sampling and types of microorganisms that are recommended to be analyzed;
- labeling - which includes appropriate provisions stipulated by the general rules of international recommended for labeling prepackaged food goods, developed by the Codex Alimentarius Commission, following:
  - Name of the product;
  - Presentation mode conditioning, size and preparation;
  - The list of ingredients;
  - Net weight;
  - Name and address of the manufacturer, distributor, importer, exporter or seller;
  - Country of origin;
  - The deadline for consumption;
  - The identifier of the batch.
- methods of analysis and sampling, which are usually international arbitration in accordance with the methods, are clarified aspects of the types of defects and the acceptance criteria and methods for determining requirements for each type of product.

Codex standards can be considered as international technical specifications through their inclusion in international agreements to set minimum quality of the goods that are the subject of a contract or by taking them into account when developing national standards or regulations on food products .

Working Group UN / ECE for food standardization and quality improvement aims through its activities to promote industrial and commercial development by encouraging international harmonization of standards and technical regulations by removing and progressive reduction of technical barriers to trade and promoting scientific cooperation and technology through the development of standardization and related policies. UN / ECE program comprises three distinct activities : coordination, harmonization and conformity assessment, commercially last two are of particular interest .

Particular importance is given to standardization of perishable products. UN / ECE standards for perishable products is a harmonization of national standards in force. ECE standards which relate especially fruits and vegetables, are developed in the spirit

of other bodies, the "Working Group on Standardisation of Perishable Produce". They have the following structural elements:

- a. standard name;
- b. Definition: each product must be defined by the species to which it belongs and condition of sale;
- c. provision of quality: Minimum on health status, cleanliness, appearance, moisture, no odor and / or flavor foreign, state of development and / or adulthood, you have to enable the product to withstand transport and storage to the destination; provisions on group graded "extra", "I" and "II", defined in terms of qualitative and presence of certain defects;
- d. provisions on size, for those that may be subject calibrului determine, as appropriate, diameter, circumference, length, mass and for the other, number of pieces / kg., the number of pieces in a pack led etc.
- e. provisions on tolerances: quality tolerances, which shall not exceed 5% in the general categories of "I" and "II" tolerances, which must not exceed 10%;
- f. provisions concerning the homogeneity of variety, variety, commercial type, presenting a strong enough package with a label is not printed with toxic;

### **3. QUALITY STANDARDS**

A key principle of the European Union market is the free movement of industrial and agricultural products. For this, it was agreed to liberalize the movement of goods began with the formation of the customs union and removing other barriers than customs generically called "non-tariff barriers." Among these are technical barriers, fiscal, administrative, technical barriers referring mainly to standards.

Quality standards have become one of the most important barriers for products exported to developed countries. Standards, as I said, are descriptions of the technical characteristics of the products, their quality (content, weight, design, performance, durability, power consumption, handling, adaptability, environmental impact, etc..).

Purpose of these standards is to ensuring worker safety standards, consumer health protection, environmental protection, cost reduction through standardization. Standards and technical regulations are technical barriers to trade only if they are different from one country to another or not be recognized in other countries. As a result, the foreign market is narrower or wider access to cheaper or more expensive, and depending on the barriers of this nature. Ways to overcome barriers arising from the existence of different standards in these countries are either to establish common standards or to promote mutual recognition of standards.

There are organizations - public or private - that develops standards for products and services. Organisms that produce European standards are CEN (Comite Europeenne de Normalisation), CENELEC (Comite Européen de Normalisation ELECTROTECHNIQUE) and ETSI (European Tele-communication and Standardisation Institute). National standardization bodies and national electrotechnical committees and telecommunications are at the same time, members of the European standardization bodies.

From a legal perspective, standards are not mandatory, but adoption and compliance to export much easier because proving conformity of the product with an already known and accepted goods. As a result, the standards are "mandatory" from the point of view. This proves that the company has introduced quality management system that shows how the company operates in this area: as ensure quality of design,



production, installation, servicing, inspection and testing. The system must be accredited by accreditation bodies recognized and recorded. In many cases, these bodies will undertake a periodic re-accreditation of the system. This explains why it is recommended to adopt ISO series 9000/2001 and their subsections.

Treaty of Rome on technical barriers refers to the harmonization of legislation, which means the development and imposition of norms and standards. There were two problems:

- Establish common standards for all goods would be a huge task, impossible in a reasonable, given the wide variety of products and frequent changes, improvements in parameters.
- Develop common standards for all products would be largely useless because, as these developed countries, technical level and quality of products is close.

The compromise solution was a dual approach . In the so-called " sectoral approach " or the " old approach" , European Directives EEC introduced the specifications for the processing and packaging of a number of products such as toy safety , construction products , personal protective equipment , medical , materials chemical , food, human medicines (one of the most severely regulated sectors ) , veterinary medicines , telecommunications terminal equipment , all electrical items , standard licensing system for motor vehicles and their trailers became mandatory for new motor vehicles from January 1 . , 1996, etc . Some of these have already been introduced into national legislation. A product that is covered by a Community directive must meet the stipulations of that Directive to be sold legally in the EU , and that product is CE marked.

To sell products to the EU in the category mentioned above, non-Member States should create national structures licensing and certification attesting that the goods produced and offered to the market meet the criteria on quality and security. In the 'new approach' on the harmonization of the conditions to be met by the products, only the basic requirements such as security level to protect consumer health and the environment should be harmonized at EU level. To remove restrictions on imports of products not corresponding to national regulations, but which complied with Community rules on the protection of consumer health and / or environment, mutual recognition was adopted (mutual recognition) standards. To this solution was reached as a result of the European Court of Justice ruling in the famous case called "Cassis de Dijon" in 1979, which referred to a ban on sales in Germany of a certain liqueur French, on the grounds that it would not meet the degree requirements of the German alcohol. Other cases, become benchmark, are those of German beer, chocolate English and Italian pasta.

Mutual recognition means, in practice, the following:

1) Equivalent rules, technical specifications, certificates of inspection, testing and analysis issued by the laboratory officially recognized in one of the member countries must be accepted by other EU.

2) An undertaking which has obtained authorization to produce in accordance with the assessment procedure of bodies, most of them private, will be allowed to sell the asset, across the EU.

3) A good that is produced and packaged as described, containing or packaging that are legal in one EU country cannot be banned from import into another EU country on the pretext of lack of compliance with existing regulations in the destination country or absence of certain content.

Introducing the principle of mutual recognition has contributed substantially to the free circulation of goods within the EU internal market. At the same time opened new export opportunities in the EU for non-members, as adoption of existing standards in one of the EU countries the export of those goods in any other European Union countries.

#### 4. ECOLOGICAL STANDARDS

Environmental protection is a global issue.

A quality product must meet consumers' needs without harming the environment. Along with quality standards, has developed an environmental management. First steps: British Standards Institute has developed the first standard in this area. The EU Eco voluntary scheme has been recommended and introduced on 1 January 1993, but with the intention of making it mandatory is under market pressure, either by inclusion in a Community directive. Initially, firms were only encouraged to produce and sell products and services. Publication of a list of honor with these companies the use of a specific logo were only incentives granted.

European internal market contains the following technical standards and environmental regulations: voluntary or mandatory.

Voluntary standards but usually belong to national legislation conform to international standards such as ISO. They are voluntary standards legally, but in fact are required for commercial reasons. They are governed by European Directives and mandatory for all companies who want to produce and sell in the EU, regardless of their origin.

Mandatory standards are mandatory for all companies, domestic or foreign, operating in the European Union.

In conclusion, the European Union's internal market is a huge market for companies able to meet the requirements - voluntary or mandatory - the quality or environmental.

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