EDUCATION ON STANDARDS DEVELOPED BY A PUBLIC INSTITUTION OF BRAZIL TO PROMOTE COMPETITIVENESS OF INDUSTRY

8th ICES CONFERENCE – Industry Needs Standards. What Does Industry Expect from Standards Education?

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Abstract

For governments it is advantageous to have industry comply with standards because it means better quality for the products, more protection for the health and safety of the citizens and for the environment, as well as more competitive companies. The Division of Overcoming Technical Barriers to Trade of the National Institute of Metrology, Quality and Technology (Inmetro) of Brazil performs many activities of support for industry including education on standards. This paper presents these activities.

Key words: Education on Standards, Competitiveness, Government, Industry, Inmetro,
Agreement on Technical Barriers to Trade of the World Trade Organization.

1. Introduction

The National Institute of Metrology, Quality and Technology (Inmetro) is a public entity of Brazil responsible for working in four main areas: Scientific and Industrial Metrology, Legal

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Metrology, Conformity Assessment, and Accreditation. In addition to those activities, Inmetro is also the Brazilian Enquiry Point for the Agreement on Technical Barriers to Trade (TBT) of the World Trade Organization (WTO).

According to the Agreement, the Enquiry Point is the national center of reference for technical requirements. This means that when a foreign company, for example, wants to export to a specific market, it can contact the WTO TBT Enquiry Point of the country and ask for information on the technical requirements of the country for its product, at no charge.

The Brazilian WTO TBT Enquiry Point, like some other congener institutions in other countries, develops other activities that go beyond supporting industry in matters related to technical requirements in international trade. Many of these other activities are based on education and training, for industry and in cooperation with foreign WTO TBT Enquiry Points.

2. The National Institute of Metrology, Quality and Technology–Inmetro

Brazil has a national system of quality called Sinmetro in which the main entity is Conmetro (National Council of Metrology, Standardization and Industrial Quality) composed of public and private entities and responsible for formulating and supervising the national policy of metrology, industrial standardization and quality certification of industrial products².

Inmetro was founded in 1973 to be the central executive entity of this system. As part of the Brazilian public structure, Inmetro is bound to the Ministry of Development, Industry and Foreign Trade. It is the national institution for industrial, scientific and legal metrology as well as the national accreditation body. It is also the institution in charge of residual technical regulation, which means it is in charge of issuing technical regulation on products, processes and services not regulated by any other national regulatory agency.

As Inmetro has expertise in dealing with so many issues related to technical requirements, it was chosen to be the Brazilian Enquiry Point for the Agreement on Technical Barriers to Trade (TBT) of the World Trade Organization (WTO).

² Law 5.966, December 11, 1973 – Articles 1, 2 and 3.
3. The WTO TBT Enquiry Point

The Brazilian WTO TBT is operated by the Division of Overcoming Technical Barriers (Disbt) placed in the General Coordination for International Affairs (Caint) of Inmetro.

According to the WTO TBT Agreement, member countries must avoid the use of technical regulations (TR) and conformity assessment procedures (CAP) that create unnecessary obstacles to international trade. Member countries must also use the relevant international standards as a basis for their national TRs and CAPs.

In order to promote transparency and facilitate trade, member countries must “notify”, which means sending to the WTO every new technical requirement issued in the country that is not in accordance with international standards and may have a significant effect on trade with other members3.

The Agreement also states that each member country shall ensure that an enquiry point exists which is able to answer all reasonable enquiries from other member countries and interested parties therein as well as provide the relevant documents regarding the technical requirements in force in the country4.

4. Activities Developed by the Brazilian WTO TBT Enquiry Point on Standards Education for Industry

The Brazilian WTO TBT Enquiry Point believes it is important to promote a culture of standardization in industry. With this aim in mind, it develops many activities and services to support the increase in technology in industry and society in general, fostering and facilitating the information and knowledge on standards and technical requirements in order to have products with better quality and industry with more competitiveness.

Performing the activities of the national WTO TBT Enquiry Point, the Division of Overcoming Technical Barriers (Disbt) of Inmetro answers enquiries about the Brazilian technical

3 WTO Agreement on Technical Barriers to Trade – Article 2
4 WTO Agreement on Technical Barriers to Trade – Article 10
requirements sent by foreign Enquiry Points, companies and other interested entities as well as notifies the WTO about the new technical regulations and conformity assessment procedures issued by the Brazilian regulatory agencies.

In addition to those activities, Disbt also develops many initiatives to support industry, of which education on standards is one of the main ones. The education on standards initiative, or more specifically on technical barriers to international trade, has been run for the last few years by Disbt, which believes that it is an essential activity for helping (through the supply of information) domestic industries to overcome technical barriers to exports, and as a consequence help them to increase their competitiveness.

This initiative is being performed by Disbt staff because it is believed that the technicians of this Division are the ones inside the institute with the most knowledge on the subject of technical barriers to trade. Their abilities, gained through training, have been developed “by doing”, watching and teaching in practice.

The Disbt staff, which is composed of 6 technicians (3 engineers, 2 lawyers and 1 analyst of international relations), provides many training courses all over the country on the standards and technical requirements in international trade. The majority of those training courses are developed in partnership with other public and private entities that work with exports promotion in Brazil.

4.1. Education Initiatives on Overcoming Technical Barriers to Trade

In recent years, most of the training courses have been developed under the projects of two institutions: the Brazilian Ministry of Development, Industry and Foreign Trade (MDIC) and the Agency of Trade and Investment Promotion of Brazil (Apex).

In 2012, for example, Disbt created 12 training courses through projects of Apex-Brasil in various states within the country. The majority of these training courses were developed under a project called PEIX whose objective is to improve the competitiveness of Brazilian companies by providing them with free consulting. The project is organized through centers placed in many Brazilian States whereby local Universities contract private consultants to apply the methodology developed by Apex in the companies. Other projects include: Oficinas de
Competitividade (Competitiveness Workshops) and Oficinas de Sustentabilidade (Sustainability Workshops).

With regard to MDIC projects, two must be highlighted: Encomex (National Meeting of Foreign Trade) and PNCE (National Plan of Exporting Culture). It is forecasted that the technicians of Disbt will provide 20 training courses under these two projects in 2013.

The audiences of the courses (Apex, MDIC and so forth) consist of representatives from companies, industry associations, private consultants and students. The courses were developed to provide these participants with a basic understanding of Standards, Metrology, Technical Regulation, Conformity Assessment, Accreditation and, especially, Technical Barriers to Trade. The training courses usually last between 2 and 8 hours, tailored according to each institution’s interests.

At the beginning of each training course, the trainer (Disbt staff) asks the participants about their current and previous experiences in those aforementioned fields. This information is used to tailor the training course to that particular audience and, more importantly, for collecting practical cases of their experiences in dealing with these issues. This type of questioning and case presentations are done throughout the entire course. There is a presentation that was developed and is used in all the training courses. It allows the standardization of all training courses.

Following this induction, the first session of the training course focuses on Metrology, presenting the main concepts of Scientific, Industrial and Legal Metrology and its practical applications for industry, trade and consumers as well as the Brazilian metrological system and the main trends in this field. Practical examples of the importance of metrology are given and how companies can access the national metrological infrastructure is explained.

The second session of each training course focuses on Standardization, Technical Regulation, Conformity Assessment and Accreditation. Among the topics, are the following: what a standard is, why standards are important, examples of relevant standards, reasons for using standards and the importance of standards in business. The levels of standardization (international, regional, national, associations and companies), the processes of standards development and how the companies can participate in them are also presented.
The second session then continues on with a discussion about technical regulations, giving examples, and talking about concepts, the reasons for regulating, the selection of products, processes and services to be regulated, the differences between standards and technical regulations, how the technical regulations are developed and how the companies can participate in this process. The audience is trained in how to look for the existing standards and technical regulations about their products and is shown a detailed analysis of one technical regulation and assessment conformity procedure.

Following all this is a discussion on Conformity Assessment, its types, schemes, and models as well as how a conformity assessment is developed, some examples and a practical exercise with a step-by-step process for getting a product certified.

The last part of the second session is about Accreditation, its concepts, systems, modalities, laboratories, certification bodies, and inspection bodies, as well as how to find an accredited entity, followed up with a practical exercise.

The third session is quicker, having the only objective of presenting Quality Management—its concepts, development over time, principles and main tools—and explaining its importance for companies as a factor of competitiveness.

The last session (the main one), talks about Technical Barriers to Exports, giving an overview of the international regulations for this area (the WTO TBT Agreement), the main reasons for and principles of the Agreement, its impact on trade, examples of technical barriers to exports, the system of notifications and Enquiry Points, the international panorama of technical barriers, the industry sectors with the highest numbers of notifications, how to access information on technical barriers, the services provided by Inmetro in this area to industry, and the possible treatments of technical barriers in international negotiations, both bilaterally or multilaterally.

After each course, the trainers invite the participants to fill out an evaluation form. The participants are also required to give a more personal qualitative evaluation, stating the strengths and weaknesses of the training course as well as providing any suggestions. Using the feedback obtained, the training courses are constantly reviewed and revised in order to meet the needs of the audiences better, especially the participants who are the representatives of exporting companies.
From the lessons learned over the years, it was possible to realize that the knowledge of the participants regarding standards is, in general terms, low, but at the same time their interest is very high, and they show a desire to improve their knowledge in the field.

4.2. Other Initiatives on the Promotion of Industry Competitiveness

The promotion of competitiveness is crucial for the Brazilian WTO TBT Enquiry Point. For this reason, in addition to the training courses, Disbt develops many publications and studies and makes them available to the companies. Examples that may be cited are the following: a. “Manual on Technical Barriers to Trade” (available in Portuguese, English and Spanish), which presents the main topics on this issue for exporting companies; b. “Technical Barriers and Business Competitiveness Handbook”, which contains the main questions of the training course presented above; c. “Studies on the Technical Regulations of the European Union on the Industries of Food and Drink”; d. studies on the technical requirements of specific countries for the sectors where Brazilian products could enlarge their market shares (the first two studies were on Chile and Mexico); e. guides on US compliance requirements for specific sectors where Brazilian products could enlarge their market share in that country: Footwear, Motor Vehicle Parts and Furniture; and f. relevant international guides translated into Portuguese: “Management of Quality in Exports” (by the International Trade Centre) and “Manual for Reach Implementation” (by the European Union about its regulations on chemicals). All these materials can be accessed from the Inmetro website.

Another important service operated by Disbt and available for free to industry is called “Alerta Exportador”. With this service, Disbt staff collects all the Notifications (the technical requirements issued by WTO member countries), summarizes them in Portuguese and through an electronic system sends them to the users (companies, consultants, students, government personnel, among others) according to their profiles. When a user subscribes to the service, he or she chooses the countries and products of interest and then receives the information according these criteria. In the same system, the users can send an enquiry to Disbt (usually asking about the technical requirements for exporting the products of their company to a specific foreign market) and receive a customized answer. The user can also send comments on the Notifications received (which allows them to have an influence on the development process of foreign regulation) and denounce possible requirements that are not in accordance with the WTO TBT Agreement. The user also has access to a search system of Notifications and a database with answered enquiries, listed according to country and product.
4.3. Activities Developed by the Brazilian WTO TBT Enquiry Point on Standards Education with Other Foreign Enquiry Points

Disbt, which operates the Brazilian WTO TBT Enquiry Point, develops projects in cooperation with the Enquiry Points of other countries. Two projects that must be highlighted because they have activities related to education on standards are the ones developed with the United States and with Mozambique.

Under the Commercial Dialogue between the Ministry of Development, Industry and Foreign Trade (MDIC) of Brazil and the Department of Commerce (DoC) of the USA, Inmetro and the National Institute of Standards and Technology (NIST) – which is the WTO TBT Enquiry Point of USA - have been working in cooperation in various areas such as Biofuels, Smart Grid, Biology & Health and WTO TBT Enquiry Points (EPs). These two Enquiry Points developed, over a two year period, a cooperation project in which many activities (detailed below) were done.

One action was an economic impact study called “Economic Impact Assessments of USA and Brazil WTO TBT Enquiry Points (EPs)”. A private consultancy was contracted to develop the methodology and apply it. Many companies and industry associations were interviewed and, at the end of the study, the gains and benefits from the activities of the WTO TBT Enquiry Points of the USA and Brazil for the economy of these two countries were presented.

The EPs also exchanged materials, studies and other products and procedures already developed and in use by each. A list was also created with the contacts in Brazil and the USA that may be important for the two EPs, such as authorities in industry associations, public entities, chambers of commerce, professors, among others. The staffs of the EPs were also cross subscribed in the services for Notifications operated by the two EPs, called “Notify US” and “Alerta Exportador”.

Additionally, the EPs had private meetings between them on the margins of the regular meetings of the WTO Committee on Technical Barriers to Trade and accomplished two exchange visits between EP staffs: BRA EP visited the USA EP and vice versa in order to discuss the development of projects, learn from the experiences of the other EP and make contacts with important trade entities in the other country. They also developed the Guides mentioned before on the technical regulations of the USA and Brazil for three top industries,
partnership with other entities such as Apex-Brazil and the US Department of Commerce. The industries chosen by Brazil were Footwear, Furniture and Vehicle Parts – those chosen by USA were Oil and Gas, Agricultural Machinery and Toys.

The last activity of the project was to plan, organize and host a meeting for the EPs of the Americas (including the Caribbean countries) on the operations of a national WTO TBT Enquiry Point and Notification Authority. This event was held in Rio de Janeiro, Brazil, in October 2012. The EP of Canada (Standards Council of Canada) was also one of the organizers, together with the EPs from Brazil and the USA. The meeting gathered representatives from 32 countries in the Americas and the Caribbean, and representatives of industry and government. The participants worked and discussed themes such as the benefits of WTO TBT EPs for companies (with testimonies and suggestions from representatives of the private sector), the impact of the technical barriers to trade on the global economy and the role of the EPs in this, practices in national internal coordination for implementation of the WTO TBT obligations, and the notification process in the operation of a national WTO TBT Enquiry Point and Notification Authority and in the Operation of Enquiry Point Services for National Industry.

Besides the exchange of good practices, one of the most important results, among many others, of the event (the first in history) was the creation of a network among the EPs of the western hemisphere that will support business between the countries by allowing companies to have access to the information on standards and technical requirements of all the countries through the cooperative work of the EPs.

In the project developed with the EP of Mozambique, the Brazilian and Mozambican EPs worked together to exchange experiences and to develop new activities to be performed by the Mozambican EP, such as periodicals with information about international technical requirements to be sent to companies and industry associations, new approaches in the necessary interactions with actors in government (regulatory agencies) and the private sector, databases of information to be provided to companies, and electronic services to be developed to support exporting companies.

Those cooperation processes between EPs are important for providing an important exchange of experiences about initiatives that support domestic industry and facilitate international trade.
5. Conclusions

The development and compliance of standards by industry is very important for any country. The improvement in the quality of products, processes and services generates benefits for the whole society and that is why it is supported by governments.

At the same time, cooperation in standardization among countries, whether bilaterally, regionally or multilaterally, facilitates trade either by increasing transparency (making the information on domestic technical requirements available for foreign parties through the EPs) or by reducing the need to comply with many different technical requirements when accessing foreign markets (through processes of standards harmonization).

With this aim, Disbt, the Brazilian WTO TBT Enquiry Point, performs all the national obligations under the international trade agreements (especially the WTO TBT Agreement) and also develops a wide range of initiatives and services to be offered to industry, either directly with industry representatives or by processes of cooperation with foreign EPs. In this process, the education on standards, as presented in this paper, has a major role.

References


Alerta Exportador (Export Alert System): http://www.inmetro.gov.br/barreirastecnicas/pontofocal/