ISO TC 216 Draft Business Plan 2015-09-21

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EXECUTIVE SUMMARY

Standardization in ISO/TC 216 consists of test methods, terminology and performance requirements for components for footwear and test methods and terminology for whole shoes.

Safety, protective and occupational footwear (already covered by ISO/TC 94) and sizing system designation and marking for boots and shoes (dealt with by ISO/TC 137) are excluded.

ISO/TC 216 has developed mainly standards dealing with the components of footwear (heels, uppers, upsoles, fasteners, etc.) and only recently has started to develop some standards applicable for the whole shoe, mainly in the determination of certain chemical substances.

The objectives of the work of ISO/TC 216 are:
- to contribute to eliminating trade barriers by harmonizing practices all over the world;
- to serve to harmonize the terms of reference in the sector thus facilitating understanding between parties (manufacturers, consumers, laboratories, etc.);
- to increase the quality of production in this market and to promote the approach of the total quality system.

ISO/TC 216's work intends to contribute to facilitating world trade and commercial exchanges in the footwear sector. This standardisation process is becoming more important as a result of new technologies and the globalisation process of the market.

Likewise, ISO/TC 216 acts as a central point to unify and manage knowledge and information and is a source of reference for all its members. The committee aims to give the best possible service for its members, the best profits for the sector and to follow the line of standardisation we have been undertaking up until now, while incorporating in our work all items of interest for members.
1. INTRODUCTION

1.1 ISO technical committees and business planning

The extension of formal business planning to ISO Technical Committees (ISO/TCs) is an important measure which forms part of a major review of business. The aim is to align the ISO work programme with expressed business environment needs and trends and to allow ISO/TCs to prioritize among different projects, to identify the benefits expected from the availability of International Standards, and to ensure adequate resources for projects throughout their development.

1.2 International standardization and the role of ISO

The foremost aim of international standardization is to facilitate the exchange of goods and services through the elimination of technical barriers to trade.

Three bodies are responsible for the planning, development and adoption of International Standards: ISO (International Organization for Standardization) is responsible for all sectors excluding Electrotechnical, which is the responsibility of IEC (International Electrotechnical Committee), and most of the Telecommunications Technologies, which are largely the responsibility of ITU (International Telecommunication Union).

ISO is a legal association, the members of which are the National Standards Bodies (NSBs) of some 140 countries (organizations representing social and economic interests at the international level), supported by a Central Secretariat based in Geneva, Switzerland.

The principal deliverable of ISO is the International Standard.

An International Standard embodies the essential principles of global openness and transparency, consensus and technical coherence. These are safeguarded through its development in an ISO Technical Committee (ISO/TC), representative of all interested parties, supported by a public comment phase (the ISO Technical Enquiry). ISO and its Technical Committees are also able to offer the ISO Technical Specification (ISO/TS), the ISO Public Available Specification (ISO/PAS) and the ISO Technical Report (ISO/TR) as solutions to market needs. These ISO products represent lower levels of consensus and have therefore not the same status as an International Standard.

ISO offers also the International Workshop Agreement (IWA) as a deliverable which aims to bridge the gap between the activities of consortia and the formal process of standardization represented by ISO and its national members. An important distinction is that the IWA is developed by ISO workshops and fora, comprising only participants with direct interest, and so it is not accorded the status of an International Standard.
2. BUSINESS ENVIRONMENT OF THE ISO/TC 216

2.1 Description of the Business Environment

The following political, economic, technical, regulatory, legal and social dynamics describe the business environment of the industry sector, products, materials, disciplines or practices related to the scope of this ISO/TC, and they may significantly influence how the relevant standards development processes are conducted and the content of the resulting standards:

ISO/TC 216 deals with consumer products which are used all over the world, since many centuries ago. Nevertheless, footwear is an industry under constant innovation, incorporating new materials and designs and optimizing the production processes.

In these processes, the standardization aims to be a tool, not a burden for that innovation, and therefore has to be developed incorporating bearing that in mind. This has condition the approach of the standardization in this field and also the stakeholders’ participation.

ISO/TC 216’s approach is to develop standards for the components, disregarding the type of material used to make those components. As a consequence, it is easy for the manufacturers to incorporate new designs and new materials and they find in the standards guidelines focused on the functional part of the component. The specifications about the material itself are left to other technical committees more specific, leather, plastics and textiles are the most important.

Regarding the stakeholders, most of the participants represent laboratories and technological centers with a very close relation with the manufacturers. There also some big companies directly represented and the rest of the industry is represented by federations or associations or express their opinion through the technological centers.

Parallel to the increasing environmental consciousness in all the society, also the TC has increased its activity regarding environmental issues and has developed several standards about certain chemical substances. Also sustainability is a concern of all society and also for footwear industry, which incorporates new materials and requires new test methods. In this sense, it is expected that new standards might need to be developed under ISO/TC 216’s to address this issue.

These standards are good tools to assess and determine the chemical substances of specific concern for the authorities. The limits to the content of these substances are not reflected in the standards, but in the legislation.

Though in Europe it exist a common regulation for Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) it is a concern for the sector that the countries could set up different legal requirements in this topic.

International standardization in this field resulted from the aim of European interested parties that have been producing European Standards to extend future European specifications worldwide and to share footwear test methods and component specifications with their international partners. In this sense, it is remarkable that new members to ISO/TC 216 from outside Europe are starting to actively participate in the standardization process and current member are actively seeking for the involvement of new countries.

International standardization of footwear test methods and component specifications are useful tools in improving communication and trade between suppliers and manufacturers.

In this way, ISO/TC 216 provides a working instrument which best fits the creative and innovative needs of designers and developers. They can design articles and provide standard specifications which can be submitted to all kinds of material suppliers.
Due to globalisation of the market and as such the delocalization of production to countries where standards do not exist, the lead given by ISO/TC 216 is very much welcomed by subcontractors and producers.

2.2 Quantitative Indicators of the Business Environment

The following list of quantitative indicators describes the business environment in order to provide adequate information to support actions of the ISO/TC 216:

Production and Consumption

The production of footwear in the world has changed a lot in the two decades. Since 1995, the number of pairs produced has grown in about a 60% and has significantly moved to Asia and decreased in Europe, Oceania and North America, both in relative and absolute terms. The production has grown in absolute terms in Africa and South America, but not enough to compensate fast grown of the Assian production in relative terms. In 2012 Asia totalized the 87% of the world production, being China and India the main producers, with the 63% and 10% respectively of the world, which totalized 20.455 Million pairs in 2012.

Regarding the number of pairs consumed, though Asia has increased its consumption, Europe and North America still represent the 15% and 17% of the world consumption. In the next figure it is shown the consumption and production in 2012.

Source: Self produced from data by Apiccaps-Portuguese Shoes
The major suppliers in the market and their market shares are:

<table>
<thead>
<tr>
<th>Country</th>
<th>Pairs (mio)</th>
<th>World Share</th>
</tr>
</thead>
<tbody>
<tr>
<td>China</td>
<td>13300</td>
<td>63.10%</td>
</tr>
<tr>
<td>India</td>
<td>2194</td>
<td>10.40%</td>
</tr>
<tr>
<td>Brazil</td>
<td>864</td>
<td>4.10%</td>
</tr>
<tr>
<td>Vietnam</td>
<td>681</td>
<td>3.20%</td>
</tr>
<tr>
<td>Indonesia</td>
<td>667</td>
<td>3.20%</td>
</tr>
<tr>
<td>Pakistan</td>
<td>358</td>
<td>1.70%</td>
</tr>
<tr>
<td>Bangladesh</td>
<td>285</td>
<td>1.40%</td>
</tr>
<tr>
<td>Turkey</td>
<td>257</td>
<td>1.20%</td>
</tr>
<tr>
<td>Mexico</td>
<td>244</td>
<td>1.20%</td>
</tr>
<tr>
<td>Italy</td>
<td>199</td>
<td>0.90%</td>
</tr>
</tbody>
</table>

**Export, imports and trade flow**

The exports show a similar picture to the production for Asia but much higher for Europe, which producing 4%, represents the 11% of the exports.

The imports are more balanced, but the tendency in to increase the share of imports in Asia and decrease it in Europe and North America. The next figure shows the share of exports and imports.

About the value of the footwear commerce, Europe and North America keep the highest average value per pair (24.9$) and Asia has the lowest (5.7$), so, the same graphic that appears above, is more continental balanced if traduced into million dollars for exported footwear, as shown in the following figure.

Source: Self produced from data by Apiccaps-Portuguese Shoes

There is a very intense trade and flow of footwear around the world and the standards play a vital role to help this trade. Nevertheless, continents differ immensely in their outward propensity. For instance, in the last lustrum, 76% of Asian exports (in terms of value) were directed at non-Asian countries, while only 13% of the European exports left Europe. This largely reflects the integration of the European markets and also the continent’s position as the largest market for imported footwear in the world.
The intra-European trade represents one third of the international footwear trade, being its largest fraction. Except Oceania, every continent is origin and destination of some flow. The next figure reflects these flows showing the geographical patterns of footwear trade in value from 2008 to 2012.

Product mix
The long-term trend for leather footwear is to lose market share in favour of other materials, mainly rubber and plastic and partially textile. The share loss is 15 pp in the last decade. The fall in value of export is not that big, as the value by type of product is much higher for the leather, as shown in the next figure.
In the next figure is shown the share of leather exports in both value and volume.

As a consequence of this market share, the main technologies used in the production of major products are injected moulded and cemented footwear.

Footwear production is mainly concentrated in small flexible production units of approximately 20 workers.

Target groups for footwear standards are in particular material suppliers, footwear manufacturers, designers, distributors, testing and certification bodies and consumers in general.

**Major factors which may have an impact on the development of the markets**

Footwear is affected by a number of European Directives that do not regulate the product itself, that is, do not define product specification, but that establish safety and environmental requirements to be met by industry.

- General security of products (92/59/EEC)
- Waste and dangerous waste (75/442/EEC, 91/689/EEC)
- Restriction on marketing and use of certain dangerous substances (76/769/EEC)
- PCP emissions (91/173/EEC)
- Packaging waste (94/62/EEC)
- Emission of volatile organic compounds (99/13/EC)
- Endangered species (Regulation 338/97/EC)
- Protection of workers from the risks related to exposure to chemical, physical and biological agents at work (80/1107/EEC)
### Number of published standards in the ISO/TC 216

The evolution of the standards published under ISO/TC 216 in the last decade is the following:

<table>
<thead>
<tr>
<th>Year</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>2002</td>
<td>5</td>
</tr>
<tr>
<td>2003</td>
<td>10</td>
</tr>
<tr>
<td>2004</td>
<td>10</td>
</tr>
<tr>
<td>2005</td>
<td>3</td>
</tr>
<tr>
<td>2006</td>
<td>3</td>
</tr>
<tr>
<td>2007</td>
<td>7</td>
</tr>
<tr>
<td>2008</td>
<td>0</td>
</tr>
<tr>
<td>2009</td>
<td>0</td>
</tr>
<tr>
<td>2010</td>
<td>5</td>
</tr>
<tr>
<td>2011</td>
<td>3</td>
</tr>
<tr>
<td>2012</td>
<td>4</td>
</tr>
<tr>
<td>2013</td>
<td>3</td>
</tr>
</tbody>
</table>

In the first years after the creation of the TC there were many standards to be published, but currently the activity of new standards is decreasing and there are more revisions or confirmation of existing standards.

Most of the new standards are expected to come from the microbiological and the environmental aspects.
3. BENEFITS EXPECTED FROM THE WORK OF THE ISO/TC

As mentioned, ISO/TC 216 work contributes greatly to facilitating trade and commercial exchanges in the footwear sector. This contribution is effected by developing International Standardization of footwear test methods and components specifications, which involves:

- Elaboration of a standard on terminology.
- Elaboration of specifications of each footwear component.
- Standardization of test methods to validate the footwear and components for footwear quality.
- Standardization on new concern aspects, like the environmental and microbiological aspects.
4. REPRESENTATION AND PARTICIPATION IN THE ISO/TC 216

Countries/ISO member bodies that are P and O members of the ISO committee – replace this example link with the link for the correct TC

4.2 Analysis of the participation

In total, ISO/TC 216 comprises 40 members divided in 18 P-Members and 22 O-Members. Their geographical distribution is as follows:

- Nine P-Members from Europe
- Five P-Members from Asia
- Three P-Members from Africa
- Non P-Members from Oceania (though Australia is O-member)
- One P-Members from the North American Continent (via footwear classification – US North)
- Non P-Members from the South American Continent (although there are four South American countries participating as O-Member)

ISO/TC 216 has a balanced participation between developed countries and developing countries. However, it is desirable to achieve a more active participation from more countries. In this sense, there is an effort to incorporate new members and periodically, invitations are sent to the stakeholders in different countries and to the National Standardization Bodies. For instance, during 2013, there were invitations send to Russia, Tunisia and Peru. Some of these efforts have been succesfull, like the incorporation of USA as an active participant.

Liaison has been established with:

- ISO/TC 94/SC 3 “Foot protection”
- ISO/TC 120 “Leather”
- ISO/TC 137 “Sizing system, designations and marking for boots and shoes”
- CEN/TC 309 “Footwear”
- IULTCS (International Union of Leather Technologists and Chemists Societies) (A liaison)
- UNIDO (United Nations Industry Development Organization) (A liaison)

Liaison is especially strong with CEN/TC 309, as the meetings are held jointly and also with ISO/TC 137, as recent meetings have also been organized in conjunction, and it helped to increase the number of participants.
5. OBJECTIVES OF THE ISO/TC AND STRATEGIES FOR THEIR ACHIEVEMENT

5.1 Defined objectives of the ISO/TC

Elaboration of International Standards on:
- test methods for components for footwear and for whole shoe, irrespective of the material, in order to harmonize the determination of the different properties needed in relation with the suitability for the end use and fitness for purpose of shoes.

Elaboration of Technical Reports on:
- performance requirements for components for footwear, irrespective of the material.

The above objectives will:
- contribute to eliminate trade barriers by harmonizing the practices worldwide
- serve to harmonize the terms of reference in the sector thus facilitating understanding between parties (manufacturers, consumers, laboratories, etc.) and to increase the quality of the production in this market and to promote the approach of the total quality system

5.2 Identified strategies to achieve the ISO/TC’s defined objectives

Drafting Instructions

Provide text that addresses how the ISO committee has used or intends to use specific strategies to achieve its objectives and how these objectives are related to the major market trends (see section 2) and the overall priorities of the work of the committee. Such strategies may include:

• Prioritization of projects (for example, developing terminology standards first, then test methods, etc.);
• Use of available national, regional or other standards (such as CEN standards via the Vienna Agreement) as source documents on which to base International Standards;
• The way in which the ISO committee work will be conducted (for example, correspondence, physical meetings, teleconferences, e-mail, Internet, need for translation in meetings, etc.);
• Necessary co-operation and liaisons with other ISO committees and/or external standards developing organizations;
• Use of the various ISO deliverables (International Standards, Technical Specifications, Publicly Available Specifications, Technical Reports, International Workshop Agreements);
• Specific needs for pre/co-normative research to support the ISO committee’s work program should be indicated so that an analysis can be made to detect any timing or funding difficulties;
• The specific structure of the ISO committee (TC, SCs, WGs) and why the ISO committee chose this particular structure should be explained.

ISO/TC 216 will use the following strategy to satisfy the preceding objective:

- ISO/TC 216 is developing a standard on terminology so that standardization groups and industry alike use consistent and coherent definitions for terms specific to the footwear sector. It is also needed to clarify the meaning of the different components and the classification of shoes related to the intended use. This facilitates the development of test method and product standards.
- Current standards in preparation are mostly related to the establishment of test methods or other provisions necessary for the application of the tests (such as sampling or conditioning). The test methods to be standardized have been selected by defining for each component the properties to assess according to the wear behaviour.

- ISO/TC 216 is developing Technical Specifications (TS) on the performance requirements for components of footwear in order to provide specifications to be used by footwear manufacturers and their suppliers. The publication of such TS is usually considered as a previous stage to the development of a standard in the same topic.

- Although ISO/TC 216 does not intend to deal with finished footwear for the moment, and bearing in mind that the footwear industry is an "assembly" industry, the first step in product standardization has been restricted to components. Tests of whole footwear are only results to test the coherence of the assembled materials.

- Concerning the process of drafting standards within ISO/TC 216, the technical work is managed by the plenary TC 216 itself, which at its first meeting agreed to concentrate on the development of work items already ongoing within CEN/TC 309 and to implement the Viena Agreement (CEN lead).

- New standards under development are also developed in parallel with CEN/TC 309 under Viena Agreement, but with ISO lead.

- The Committee makes use of electronic means of communication to an increasing degree.
6. FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE ISO/TC WORK PROGRAMME

The work programme and its extent are adjusted to the available resources.

ISO/TC 216 is lacking representation of more ISO non-European members in the TC meetings, but as explained above, some efforts have been done to overcome this situation.

Nevertheless all P members contribute to the elaboration of draft standards by correspondence.

The inclusion of precision data in most standards requires interlaboratore tests that sometimes cannot be done due to lack of participants.
7. STRUCTURE, CURRENT PROJECTS AND PUBLICATIONS OF THE ISO/TC

This section gives an overview of the ISO/TC’s structure, scope, projects and publications. All of this information is updated regularly and is available on ISO’s website, ISO Online.

The link below is to the TC’s page on ISO’s website:
http://www.iso.org/iso/home/standards_development/list_of_iso_technical_committees/iso_technical_committee.htm?commid=54972

Click on the tabs and links on this page to find the following information:
- About (Secretariat, Secretary, Chair, Date of creation, Scope, etc.)
- Contact details
- Structure (Subcommittees and working groups)
- Liaisons
- Meetings
- Tools
- Work programme (published standards and standards under development)

Reference information

Glossary of terms and abbreviations used in ISO/TC Business Plans
General information on the principles of ISO’s technical work