EU POLICY FOR SUSTAINABLE CONSUMPTION AND PRODUCTION – ECOLABEL FOR FOOTWEAR

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The EU Ecolabel is a voluntary scheme that forms part of overall EU policy to encourage more sustainable consumption and production. The award of an EU Ecolabel to a product is denoted by use of the logo „Flower". This paper provides a brief overview about EU Ecolabels with special emphasis on EU Ecolabel for footwear product group, criteria for a first assessment only and a short description of the global and European leather footwear industry.

Keywords: Ecolabel, footwear, sustainable development, sustainable consumption

INTRODUCTION

Sustainability means the ability of meeting the needs of the present generation without compromising the ability of future generations to meet their own needs. Hence sustainability is a holistic concept, which takes into account social and environment issues as well as problems that are specific to a region.

The EU Ecolabel is a voluntary ISO Type I environmental label, i.e. independent of the manufacturer and producer. Initially established in 1992, its aim is to: i) decrease the environmental impacts of products throughout their lifecycle; ii) promote the resource efficiency of industrial production; enable consumers to make informed decisions based on a product's environmental performance.

The award of an EU Ecolabel to a product is denoted by use of the logo „Flower".

The Ecolabel scheme is an important component of the EU's Sustainable Consumption and Production Action Plan (European Commission, On the Sustainable Consumption and Production and Sustainable Industrial Policy Action Plan, 2008) adopted by the Commission on 16 July 2008, complementing the Ecodesign Directive (Directive 2009/125/EC) by providing a best practice benchmark and integrating with the Green Public Procurement (GPP) agenda (Green Public Procurement).

However, the scheme has had difficulty in terms of market penetration and, following a review, the scheme was revised in 2009/10 and a new Regulation (EU Regulation 66/2010 on the EU Ecolabel) was published.

EU Footwear Labeling Directive

Directive 94/11/EC, also called EU Footwear Labeling Directive, is specifically related to the European market on the approximation of the laws, regulations and administrative provisions of the Member States relating to the labeling of materials used in the main components of footwear for sale to the consumer (http://www.ibisworld.com/industry). For the purposes of the Directive, 'footwear' shall mean all articles with applied soles designed to protect or cover the foot, including parts marketed separately as referred to in Annex I of the Directive, and recalled on Figure 1. Respective labels must contain information related to the main footwear component parts, such as: the upper, the lining and insole sock, and the outer-sole. Materials must be labeled in one of four ways: leather; coated leather; natural, synthetic and non-woven textile; and all other materials. The labeling shall provide information on the material covering at least 80% of the surface areas or 80% of the volume of the outer-sole. The information must be conveyed by means of approved pictograms or textual information, as defined by the Directive.

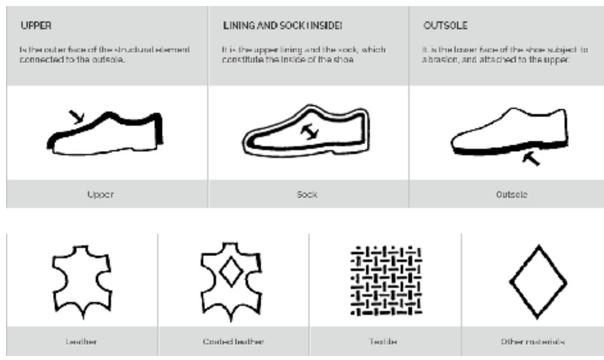

Figure 1. Footwear Pictograms in line with the Directive 94/11/EC

European and non-European Ecolabels

The main European Ecolabel schemes that address both footwear and/or leather containing product group(s) are shown in the Table 1.

Table 1. European Ecolabels

No	Ecolabel name	Logo	Scope
1	EU Ecolabel (Europe)		Footwear
2	Nordic Swan (Denmark)		Textiles, Skins and Leather
3	Blue Angel (Germany)		Footwear
4	Environmentally Friendly Products Ecolabel (Czech Republic)		Footwear
5	Distintiu de garantia de qualitat ambiental (Catalunya)		Leather

Global Footwear Market

Industry revenue for the Global Footwear Manufacturing has increased 2.2% in 2012 to total USD 122.9 billion, up from USD 107.4 billion in 2011: this represents an annual growth of 2.7% over the last 5 years (Eurostat). According to APPICAPS estimates world-wide production of footwear reached 21 billion pairs in 2011. When referring to the quantity of shoes produced, about 87% of the manufacturing takes place in Asia, mainly China (60.5%), followed by India (10.4%), Vietnam (3.8%), Pakistan (1.4%), and Bangladesh (1.3%). South America accounts for 5% of global production, 3.8% of which comes from Brazil. The European footwear production accounts for approx. 3% of the world total, followed by the North America (2%). Africa shows a slight increase in the production (currently 3%) with respect to previous years. The only European country included on the top-ten list is Italy, with an overall share of 1% of world production. Figure 2 shows the production distribution of the top-ten list countries.

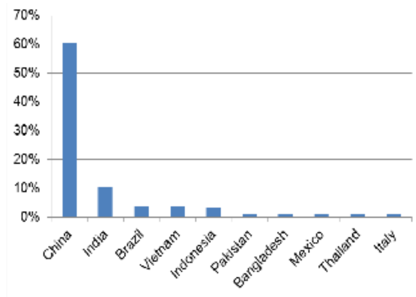

Figure 2. Top 10 of 2011 world footwear producers (volume)

In 2011 Asia was also the biggest consumer of footwear volume accounting, for 47% of world total, followed by Europe (21%), North America (17%), South America (8%), Africa (6%), and Oceania (1%). China accounts for 15.9% of global footwear apparent consumption (in volume), followed by the United States (12.9%), and India (12.7%). As is evident on the Figure 3, apparent consumption of footwear in Germany is the highest in Europe, representing 2.5% of global consumption.

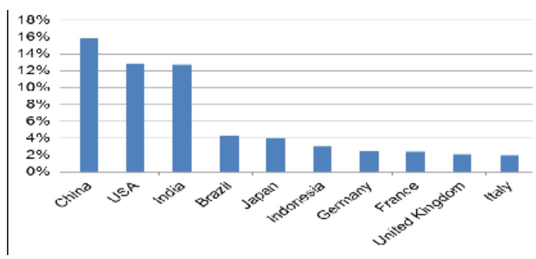

Figure 3. Top 10 of 2011 world footwear consumers (volume)

Footwear is an active product on the international markets, being one of the most widely traded and universally used commodities in the world. The level of international trade has risen steadily from 63.5% of industry revenue in 2006 at $75.2 billion, to $83.7 billion in 2010: this represents an annual average rise of 3.3% (Eurostat). The intra-European value of footwear trade corresponds to 35% of world total value, and 83% of overall European export. This is followed by Asian exports to North America and Europe, which represent respectively 19% and 17% of the world total. Intra-Asian exports, at 13%, are also very significant. On the other hand, European exports to Asia and North America represent only 3% and 2% respectively, of the world total. At 2% of world total, Asian exports to Africa is the only other flow exceeding 1% (APPICAPS). Exports from China have increased as the major international footwear companies have outsourced their production to take advantage of the lower labour and production costs. Asia dwarfs all other continents as a footwear exporter, with 84% of the world total volume. Europe is a distant second, with 11% of global export share. Europe leads the ranking of world importers. However, after reaching a maximum of 44% in 2008, its share of the world total volume has been declining for the last three years to 40%. At the other end of the table, Africa's imports have been growing steadily over the last decade, currently representing approximately 7% of the world footwear trade volume.

European Footwear Market

Southern Europe, especially the Mediterranean region, is the main European footwear manufacturing area. Italy, Spain, Portugal and Romania together represent approximately 76% of the overall European production value, and 72% of production volume in 2011 (APPICAPS). The European footwear industry dominates production of high quality products in the medium to elevated price category. The average European production price has increased from 21.39 EUR in 2007 to 25.65 EUR in 2012. Because it has the highest share of the European market value (48%) and volume (34%), Italy leads the EU27 in manufacturing medium to highly-priced shoes. Romania, Bulgaria, Hungary, Slovakia have also recorded a decrease in production. Despite benefiting from increased market demand due to the market extension after the EU entrance, they competed poorly against Asian suppliers, many of whom have both lower cost bases and are technologically well developed (Eurostat).

Table 2. Top-12 of European producers (EUR millions) (APPICAPS)

	2007	2008	2009	2010	2011	Production share of 2011	Growth 2007-2011
EU27	13 838	12 898	11 218	11 772	12 951	100%	-6%
Italy	6 364	6 196	5 304	5 426	6 262	48%	-2%
Spain	1 836	1 707	1 454	1 476	1 563	12%	-15%
Portugal	1 137	1 117	1 094	1 204	1 270	10%	12%
Romania	1 017	877	716	756	793	6%	-22%
Germany	603	602	547	595	643	5%	7%
France	807	257	429	412	421	3%	-48%
Poland	351	354	269	298	307	2%	-13%
Slovakia	276	217	178	206	254	2%	-8%
Austria	187	209	224	252	248	2%	33%
UK	209	212	140	219	207	2%	-1%
Hungary	133	133	127	133	158	1%	19%
Finland	124	126	103	129	134	1%	8%
Others	793	892	633	665	690	5%	-13%

European footwear production experienced an overall decrease of 22% volume and 6% value within the last 5 years, particularly in Italy, Spain, and Portugal, due to the economic recession and intense competition within the footwear industry. Notwithstanding the global footwear market redistribution, the top European producers have not changed much since 2002.

The last decade consumers' preferences oriented to "ecological leathers" (Adiguzel Zengin *et al.*, 2012; Mutlu *et al.*, 2014; Deselnicu, V. *et al.*, 2014; Crudu *et al.*, 2014; Deselnicu, D.C. *et al.*, 2014).

HOW TO APPLY FOR THE ECO-LABEL

In order to apply for the Eco-label, the submitting organisation must send a technical dossier which contains all the details of how the product meets the new criteria to an

Eco-labelling competent body. There is one in each EU member state, which will assess the dossier against the criteria and decide if the product meets the requirements. The Table 3 presents criteria which have to fulfill a product for awarding EU Ecolabel.

Table 3. Check-list (for a first assessment only)

Life Cycle Step	Criterion	Expectations
Materials (packaging)	Use of recycled material	• Cardboard boxes: 100% recycled material • Plastic bags: at least 75% recycled material or biodegradable or compostable
Manufacturing (processes and chemicals)	Limitation of water pollution	Treatment of tannery waste water: • <250mg COD/L of water discharged if released directly into fresh water. • In line with minimum community requirements according to Council Directive 91/271/EEC if released into municipal waste water treatment plant/facility • Cr (III) < 1mg/L
Manufacturing (processes and chemicals)	Reduction of air pollution	• Volatile Organic Compounds (VOC): VOC < or equal to 20 to 25g/pair (according to type of footwear)
Manufacturing (processes and chemicals)	Reduction of water consumption	Limits to water consumption for the tanning of hide and skin: • Hides < 35m3/t • Skins < 55m3/t
Manufacturing (processes and chemicals)	Energy consumption	Information shall be declared
Manufacturing (processes and chemicals)	Exclusion of the use of substances harmful for health and the environment	• Pentachlorophenol, tetrachlorophenol and certain azo dyes excluded • C10-13 chloralkanes excluded from leather, rubber or textile components • Certain N-Nitrosamines excluded from rubber • No dyes meeting the criteria for classification as carcinogenic, mutagenic, toxic to reproduction, hazardous/dangerous to the following R-phrases: R40, R43, R45, R50, R51, R52, R53, R60, R61, R62, R63 or R68 (or any combination) shall be used • APE and PFOS shall not be used • Phthalates classified with the phrases: R60, R61, R62, R50, R51, R52, R53, R50/53, R51/53, R52/53 in accordance with Directive 67/548/EEC • Only biocidal products products containing biocidal active substances included in Annex IA of the Directive 98/8/EC shall be allowed for use • DNOP, DINP, DIDP are not permitted in the product
Use	Performance and durability	• Occupational and safety footwear must carry the EC mark (Dir. 89/686/EEC). • Other footwear must be tested for the following parameters: uppers flex resistance, uppersole adhesion, uppers tear strength, outsoles flex resistance, outsoles abrasion resistance, outsoles tear strength, colour fastness of the inside of the footwear
Use	Advice to consumers	• If the shoes have been treated to improve their water resistance, no further treatment required • Invitation to repair and recycle the product when possible

End of life	Limitation of toxic and other residues in the shoes	• For shoes made of leather, there shall be no Cr(VI) in the final product • As, Cd and Pb shall not be detected in the final product. • Formaldehyde: - in textile: not detectable - in leather: < or equal to 150ppm • No electric or electronic components

CONCLUSIONS

The EU Ecolabel is a voluntary scheme, which means that producers, importers and retailers can choose to apply for the label for their products. The scheme is designed to encourage businesses to market products and services that are kinder to the environment, as well as providing guidance for people seeking safer and more sustainable consumption.

The EU Ecolabel logo on Footwear tells you: i) Limited water pollution during production; ii) A reduction of emissions of volatile organic compounds during production; iii) The exclusion of substances harmful for the environment and health; iv) Limited residues of metals and formaldehyde in the final product; v) The use of recycled packaging; vi) The careful control of different aspects of durability.

Excluded or limited substances (non-exhaustive list): i) Exclusion of certain azo dyes; ii) Exclusion of PVC (except recycled PVC for outsoles); iii) No arsenic, cadmium and lead in the final product; iv) Limited use of formaldehyde and hexavalent chromium.

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