BUSINESS PLAN

ISO/TC 63
Glass containers

EXECUTIVE SUMMARY

The world glass container market was estimated at 57 million tonnes in 2001 and is expected to rise by 14% per year to 2005. The US was previously the single largest producer, accounting for 21% of global production in 1997, but by 2001, China had overtaken the declining US market to become the world's largest glass container producer, taking an estimated 25% of global output. With production in 1998 at 28.1 million tonnes, the EU is the biggest glass producing region in the world, and the first in terms of glass consumption.

ISO TC63 had been inactive for at least 10 years up to the beginning of 2001. This had caused serious difficulties in the revision of a number of glass-related ISO standards, covering detailed test procedures and specifications, which had come up for review. A full review programme is now under way which takes account of changing methods and technological innovation.

The entire Work Programme is to be carried out by a Working Group of CEN/TC 261/SC 5 *Primary and transport packaging* and processed via the Vienna Agreement.

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

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:

Although showing relatively stable production trends over the past few decades, the glass container industry has faced major internal changes in the make-up of its end-user markets and in its role in the overall packaging industry, particularly in North America and Europe. The advent of PET bottles and the continued popularity of cans for the packaging of many non-alcoholic and alcoholic drinks has actually eliminated glass in some sectors.

Regional supply is an integral feature of the glass container industry with high transport costs restricting most producers' markets to the region of manufacture, while the high cost of glassworks construction is a barrier to entry. Regional variations in economies and substitution trends among packaging materials therefore have a profound effect on producers. Only a handful of companies have managed to operate in the worldwide market and all of these are part of a large group with other interests and substantial resources to call upon. French based St. Gobain and US-based Owens-Illinois are currently the largest glass container manufacturers in the World, a position they acquired as a result of a series of significant corporate moves. However, consolidation is rife and rapid in the global glass container industry, with several companies moving towards consolidation in a bid to increase competitivity.

The future rôle of glass for beverage products is likely to be in support of the accelerated growth of niche products that command a premium price and deliver higher margins than traditional beverage products. Consumer attitudes to beverage products indicate a shift to more premium, speciality products. These soft drinks are best marketed in value enhanced glass packages that deliver consumer appeal and product differentiation. The same trend is likely in the food jar market, although traditional commodity food products will also continue to make up a large proportion of glass jar sales.

The glass industry has always been a prime target for environmental legislation as it has high energy usage and creates atmospheric pollution through the emission of carbon dioxide and nitrous oxide. On a European-wide level there is a range of environmental legislation affecting the industry, with a high level of governing regulations found in all sectors of the industry. The environmental impact of packaging has been a key issue for the European packaging industry in the last decade or so, and with legislation now in place, it is one of the principal influencing factors in shaping the industry. The soft drinks industry alone is estimated to account for 4% of household waste in the EU and drinks packaging has become one of the prime focus points of legislation. Political decisions regarding refillable versus one-way packaging have great significance for the drinks packaging market. In Europe several countries have implemented or are considering fiscal measures to influence purchasing behaviour. Legislation depending on lifecycle analysis is proving to be a popular system among European authorities - one which will inevitably count against beverage cans. Moreover, because of the strong economic links between the countries of Europe, decisions taken in one country have had a large impact upon domestic industries in other countries. It is likely that environmental pressures on the glass industry in Western Europe will increase and although environmental legislation in emerging markets will eventually become stricter, it is likely to take considerable time before it becomes as rigorous as in more developed regions.

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:

The world glass container market was estimated at 50 million tonnes in 1997. By 2001, it had climbed to around 57 million tonnes, an increase of some 14%. The US was previously the single largest producer, accounting for 21% of global production, but by 2001, China had overtaken the declining US market to become the world's largest glass container producer, taking an estimated 25% of global output.

With production in 1998 at 28.1 million tonnes, the EU is the biggest glass producing region in the world, and the first in terms of glass consumption. Over recent years, and in a partially saturated European market, production has been growing slowly but steadily (around 2% a year), and this pace should be maintained during the coming years due to technical improvements and new applications. Within the European glass industry as a whole, container glass is by far the dominant sector.

Of the key mature container glass markets, the US recorded negative growth rates in container production up until 1997, when it made tentative steps to recovery, which continued into 1998. Japan, also recorded negative growth rates throughout the period, but as the US picked up in 1997, Japan, and the other Asian markets were hit by the financial crisis overtaking the region, and saw growth rates plummet. Western Europe was the only region to show a positive development in container production throughout the 1994-1998 period, though growth rates were at best moderate, and even then the market stagnated in 1997. Container users across the board are using the size, shape and colour of their bottles as a means to differentiate their products and gain market share, and also in an attempt to revive demand to offset declines and stagnation in mature markets. In comparison, analysis of a selection of container markets in emerging regions shows a different scenario. On the whole, until the 1998 economic turndown, growth rates in emerging markets remained positive, and were generally higher then the equivalent levels in the mature markets. However, what is obvious, is that the crash of 1998 had a profound effect on the container glass industry, with production levels sinking, as manufacturers adapted to falling consumer spending and contractions in export markets.

Glass container production worldwide was 57 million tonnes in 2001and is expected to rise by 14% per year to 2005. In Asia-Pacific, growth will be strong in China and India while in Latin America, Colombia and Argentina will lead the way.

3 BENEFITS EXPECTED FROM THE WORK OF THE ISO/TC

ISO TC63 had been inactive for at least 10 years up to the beginning of 2001. This had caused serious difficulties in the revision of a number of glass-related ISO standards, covering detailed test procedures and specifications, which had come up for review under the Vienna Agreement.

The effective co-ordination between Standards bodies at International (ISO TC63), European (CEN TC261/SC5 WG21) and National levels is crucial to the continued well being of the container glass industry. There are pressures from many sources on all sectors of manufacturing industry and the glass container industry is no exception. Typical current examples include: -

- In Europe, the Packaging Waste Directive (94/62/EC) Essential Requirement – particularly in the areas of ‘Packaging Minimization’ and ‘Recyclability’.

- The current developments to make packaging more user friendly ie openability.

- The ongoing requirement to ensure that packaging remains safe and ‘fit for use.

Requirements for standardization are constantly changing – National Standards are decreasing in importance, while there is an increasing move towards specifications and standards becoming European or Global. We can already see the beginnings of the process in the current work programme of both CEN/TC261/SC5/WG21 and ISO TC63: -

- The development of the test method standards ISO 7458, 7459, 8106 and 8113. The original ISO standards covering these areas did not include the up-to-date test methods

already universally used in Western Europe and the USA and the first job of the reconstituted TC was to develop the existing European Standards as full ISO standards.

- Work is currently being carried out on the development of European Standards for crown finishes. As many of the breweries and soft drinks companies now operate globally, it is likely that these standards will also be adopted by ISO.

- Work is also currently being carried out on the development of a European standard for 28 mm screw finishes for carbonated beverages. Again, this is likely to be adopted as an ISO standard.

Industry perceives that we are moving into an era of ever-increasing regulation. It is essential that co-ordination of standards be carried out with as much co-operation as possible in the widest forum in order to help industry to improve productivity through standardization and to reduce the burden of ever-increasing costs.

4 REPRESENTATION AND PARTICIPATION IN THE ISO/TC

4.1 Countries/ISO members bodies that are P and O members of the ISO committee

4.2 Analysis of the participation

This committee was on standby for some years with no work items. It was reconstituted after the secretariat was transferred to BSI in 2000 with very little change in the membership. It is possible that this may change as the work progresses. Since the work is being carried out by a CEN committee and processed in parallel, the actual constitution of the Working Group is heavily biased towards Europe.

5 OBJECTIVES OF THE ISO/TC AND STRATEGIES FOR THEIR ACHIEVEMENT

5.1 Defined objectives of the ISO/TC

Elaboration and revision of standards within the scope of the committee, adjusting the work programme as needed to meet the needs of the marketplace and changing technology. It is currently expected that no new work will be proposed after the revision of existing standards and the committee will merely monitor them and undertake any amendments which may prove necessary.

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

All the work of revising the committee's existing standards is being carried out by Working Group 21 *Glass packaging* of Subcommittee 5 *Primary and transport packaging* of CEN/TC 261 *Packaging* and voted in parallel via the Vienna Agreement. The TC therefore has no reason to meet and will carry out any review of the work by correspondence only.

6 FACTORS AFFECTING COMPLETION AND IMPLEMENTATION OF THE ISO/TC WORK PROGRAMME

The entire Work Programme is to be carried out by a Working Group of CEN/TC 261/SC 5 *Primary and transport packaging* and processed via the Vienna Agreement. ISO/TC 63 is therefore completely dependent on the CEN committee for the timely execution of the Work Programme.

7 STRUCTURE, CURRENT PROJECTS AND PUBLICATIONS OF THE ISO/TC

This section gives an overview of the ISO/TC's structure, scopes of the ISO/TCs and any existing subcommittees and information on existing and planned standardization projects, publication of the ISO/TC and its subcommittees.

7.1 Structure of the ISO committee

7.2 Current projects of the ISO technical committee and its subcommittees

7.3 Publications of the ISO technical committee and its subcommittees

Reference information

Glossary of terms and abbreviations used in ISO/TC Business Plans

General information on the principles of ISO's technical work