BUSINESS PLAN

ISO/TC 89
Wood-based panels

EXECUTIVE SUMMARY

Business Environment

The main wood-based panel types present on the market which are fibreboards, particleboards and OSB, and plywood, are within the scope of ISO/TC 89 and addressed by the subcommittees 1, 2 and 3. Wood-based panels are mainly used in the building sector and in the furniture industry. Besides unfaced raw boards wood-based panels are overlaid e.g. covered with melamine impregnated papers or veneers on their panel surfaces. The main trading regions are Europe, North America and Asia-Pacific. Most trade is within these regions but depending on the product there is also significant trade between them.

In 1997 ca. 81 000 people were employed in the wood-based panel industry in Europe (according to EUROSTAT, EPF). A world-wide employment of ca. 500 000 people can be estimated.

Benefits

Agreement on test methods, definitions, classifications and specifications of wood based panels will facilitate trade both within and between regions. Eventually it may be possible to get a common labelling policy also.

12 ISO Standards on test methods for wood-based panelss have already been published in 1993.

Objectives and priorities

- Development of standards for test methods, definitions and classifications which are accepted and adopted world-wide.

- Development of standards for product specifications, which take into account, as much as possible, the different climatic influences, environmental issues differences in regulatory systems and in end-use applications in different parts of the world.

- Establish sound working relationship with the other relevant ISO technical committees, sub committees, working groups and corresponding CEN committees.

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:

The main wood-based panel types present on the market which are fibreboards, particleboards and OSB, and plywood, are within the scope of ISO/TC 89 and addressed by the subcommittees 1, 2 and 3. Wood-based panels are mainly used in the building sector and in the furniture industry. Besides unfaced raw boards wood-based panels are overlaid e.g. covered with melamine impregnated papers or veneers on their panel surfaces. The main trading regions are Europe, North America and Asia-Pacific. Most trade is within these regions but depending on the product there is also significant trade between them.

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 production of wood-based panels over the years 1996 to 1998 is given in tables 1 to 3. The tables show a considerable expansion of the total market and production world-wide and in different regions.

In 1997 ca. 81 000 people were employed in the wood-based panel industry in Europe (according to EUROSTAT, EPF). A world-wide employment of ca. 500 000 people can be estimated.

Table 1 – World production of wood-based panels 1996 to 1998 [m^3 x 106]

Wood-based panel type	1996	1997	1998
Particleboards	54	56,3	56,2
Plywood	52,9	54,1	54
Oriented Strand Boards (OSB)	13,5	15,7	17,3
MDF	9,7	11,7	12,8
Other Fibreboards	7,1	7,6	7,6
Total amount	137,2	145,4	147,9
Source: BIS/EPF, values rounded			

Table 2 – Production of wood-based panels in North America 1996 to 1998 [m^3 x 106]

Wood-based panel type	1996	1997	1998
Particleboards	9,7	10,1	10,7
Plywood	18,8	17,7	17,2
Oriented Strand Boards (OSB)	13	15	16,5
MDF	2,8	3,2	3,6
Total amount	44,3	46	48
Source: BIS, values rounded			

Table 3 – Production of wood-based panels in Europe 1996 to 1998 [m³ x 106]

Wood-based panel type	1996	1997	1998
Particleboards	28,1	30,5	31,3
Plywood	2,6	2,7	2,8
Oriented Strand Boards (OSB)	0,4	0,7	0,8
MDF	4,5	5,5	6,2
Other fibreboards	1,7	1,9	1,9
Total amount	37,3	41,3	43
Source: EPF, values rounded			

Table 4 – Production of wood-based panels in Asia 1996 to 1998 [m³ x 106]

Wood-based panel type	1996	1997	1998
Particleboards	8,3	9,1	7,9
Plywood	26,0	28,9	21,1
MDF	2,2	3,1	3,6
Other fibreboards	2,8	3,1	2,8
Total amount	39,3	44,2	35,4
Source: FAO, values rounded			

Table 5 – Production of wood-based panels in Oceania 1996 to 1998 [m³ x 106]

Wood-based panel type	1996	1997	1998
Particleboards	1,0	1,0	1,0
Plywood	0,3	0,4	0,4
MDF	0,8	0,9	0,9
Other fibreboards	0,2	0,2	0,2
Total amount	2,3	2,5	2,5
Source: FAO, values rounded			

The following tables 6 to 9 give an overview of wood-based panel production and the import and export by country.

Table 6 – Wood-based panel production, exports and imports by country 1997 [m³ x 106]

Wood-based panel production		Wood-based panel exports		Wood-based panel imports	
USA	38,5	Indonesia	8,8	USA	8,9
China	14,6	Canada	8	Japan	7,4
Canada	11,4	Malaysia	5,3	China	6,5
Germany	10,9	USA	3,3	Germany	3,4
Indonesia	10,2	Belgium/Lux.	2,5	United Kingdom	2,9
Malaysia	7	Germany	2,5	Korea Republic	1,8
Japan	6,5	France	2,1	Netherlands	1,4
France	4,6	China	1,9	Italy	1,4
Italy	4,4	Austria	1,5	France	1,3
Brazil	3,6	Finland	1,2	Canada	1,1
Source: FAO, values rounded					

Table 7 – Particleboard production, exports and imports by country 1997 [m³ x 106]

Particleboard production		Particleboard exports		Particleboard imports	
USA	16,3	Canada	6,1	USA	5,4
Germany	9,2	Belgium/Lux.	2,1	Germany	1,6
Canada	7,8	Germany	1,5	UK	1,1
China	3,7	France	1,3	Japan	0,7
France	3,3	Austria	1,2	Italy	0,7
Belgium/Lux.	3,1	Switzerland	0,4	Netherlands	0,6
Italy	2,8	Czech Republic	0,4	France	0,6
UK	2,2	Portugal	0,4	China	0,5
Poland	2,1	USA	0,4	Poland	0,5
Spain	2	Belarus	0,3	Spain	0,5
Source: FAO, values rounded					

Table 8 – Plywood production, exports and imports by country 1997 [m³ x 106]

Plywood production		Plywood exports		Plywood imports	
USA	15,9	Indonesia	8,5	Japan	5,4
Indonesia	9,6	Malaysia	3,9	China	3,5
China	8,1	USA	1,6	USA	1,9
Malaysia	4,1	China	1,4	Germany	1,1
Japan	3,9	Finland	0,9	Korea Republic	1
Brazil	1,9	Canada	0,9	UK	1
Canada	1,9	Russian Fed.	0,6	Singapore	0,6
Korea Republic	1	Brazil	0,6	Netherlands	0,5
Finland	1	France	0,2	Canada	0,5
Russian Fed.	1	Singapore	0,2	Belgium/Lux.	0,3
Source: FAO, values rounded					

Table 9 – MDF production, exports and imports by country 1997 [m³ x 106]

MDF production		MDF exports		MDF imports	
USA	2,4	Malaysia	0,6	Japan	0,7
China	1,1	Italy	0,5	China	0,5
Korea Republic	0,8	Germany	0,4	UK	0,5
Germany	0,7	New Zealand	0,4	USA	0,4
Malaysia	0,6	France	0,4	Spain	0,3
Italy	0,6	Canada	0,4	Germany	0,2
Turkey	0,6	Venezuela	0,3	France	0,2
Spain	0,5	Belgium/Lux.	0,2	Belgium/Lux.	0,1
UK	0,5	Portugal	0,2	Netherlands	0,1
Australia	0,5	Spain	0,2	Canada	0,1
Source: FAO, values rounded					

Description of the market structure and the major market players

Structure of the market: Suppliers/Manufacturers (descriptive and quantitative)

The market shares of wood-based panel types are significantly different in Europe, North America and Asia. In Europe particleboards and MDF are of most importance whereas the production of plywood is relatively low. On the other hand plywood is the most important wood-based panel product in North America and in Asia with the highest net product compared to the other wood-based panel types.

In North America the development of the production of the different panel types was as follows:
- Particleboards +16 %
- MDF +90 %
- OSB + 200 %
- Plywood –22%

Also tables 2 to 4 give an idea of the development between 1996 and 1998.

The well established product types particleboards and plywood are still the most important wood-based panels with a moderate increase of production on a high level in case of particleboards and a stagnation or even decrease of production for plywood but also based on a high level.

For MDF and OSB a considerable increase of production has taken place during the last years. The market for MDF and for OSB is still rapidly growing and further new mills are planned.

Products such as LVL (Laminated Veneer Lumber), PSL (Parallel Strand Lumber) or LSL (Laminated Strand Lumber) have only small market shares at the moment but a considerable increase of production can be expected. These products have not yet been taken into account for International Standardization.

Structure of the market: Customers (descriptive and quantitative)

Wood-based panels are mainly used in the building sector and in the furniture industry. Table 10 gives an idea of the areas of application of the different panel types. For a certain amount of panels which is sold by DIY markets it is difficult to give figures on the end use.

Table 10 – Areas of application of wood-based panels

Wood-based panel type (region)	Area of application	
	Building, Packaging %	Furniture %
Particleboard (Germany)	50	50
MDF (Europe)	35	65
OSB (World)	85	15
Veneer-Plywood (World)	70	30
Source: FESYP '98, BFH-Uni HH '98, Sunds '98)		

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

Suppliers and customers

The market for wood-based panels is getting more and more global. Companies are getting bigger by taking over or merger and are operating more and more internationally. The capacities of new built mills are increasing. There is a trend towards very large integrated mills producing particleboard, MDF and OSB with a capacity up to one million cubic metres per years. The increasing capacities will have an impact on the market from the suppliers side.

The demand for wood-based panels is closely connected with the fluctuation in the level of economic activity in a specific country or region. An economic upturn has a positive influence on housing construction and on the furniture industry the economic development of which is again related to housing construction. An example is the economic development in South East Asia in the nineties. In the beginning of the decade there were e.g considerable exports of MDF from Europe which break down in the recession of 1997 and 1998 in South East Asia. At the same time MDF producers from Asia-Pacific and Latin America appeared on the European market. A further example is related to OSB. In 1997 there was a surplus of OSB produced in the USA which was exported to Europe. After the US market for OSB had recovered in 1998 the exports to Europe

strongly decreased and now new capacities for OSB are planned in the USA, in Europe and South America to start production in 2000 or 2001.

Technological changes and major product innovations
The major technological change in the wood-based panel industry in the last years was the development of continuous pressing systems. These have economical and technical advantages compared to batch-wise systems. Continuous systems e.g. opened up new possibilities for panel dimensions to become more flexible and larger.

The most important product innovations of the last years have been MDF and OSB which have already a considerable market share and LVL (Laminated Veneer Lumber), PSL (Parallel Strand Lumber) or LSL (Laminated Strand Lumber) (see 3.1).

Barrieres to trade
A successful result from the implementation of the Business Plan will be further elimination of barriers to international trade in wood based panels

3 BENEFITS EXPECTED FROM THE WORK OF THE ISO/TC

Agreement on test methods, definitions, classifications and specifications of wood based panels will facilitate trade both within and between regions. Eventually it may be possible to get a common labelling policy also.

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

All major regions involved in the manufacture and trade of fibrebords, particleboards and OSB and plywood are represented in the relevant subcommittees. It is hoped that people from all regions will actively participate in the affairs of ISO/TC 89, its subcommittees and working groups.

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

5.1 Defined objectives of the ISO/TC

- Development of standards for test methods, definitions and classifications which are accepted and adopted world-wide.

- Development of standards for product specifications, which take into account, as much as possible, the different climatic influences, environmental issues differences in regulatory systems and in end-use applications in different parts of the world.

- Establish sound working relationship with the other relevant ISO technical committees, sub committees, working groups and corresponding CEN committees.

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

- Agreement on test methods for all wood-based panel types in working groups directly related to the TC.

- Consideration of specification standards and other standards related to an individual panel type in subcommittee 1 "Fibreboards", subcommittee 2 "Particleboards" and subcommittee 3 "Plywood". European Standards, JANS, ASTM etc. can be used as a basis. In order to take into account different climatic influences, environmental issues and differences in end-use applications in different parts of the world, it may be necessary to introduce additional classes in the standards.

- Continue liaison with other relevant ISO technical committees, sub committees, working groups and corresponding CEN committees

- Cooperation with other regional or national institutions based on mutual interest

- Developing a timetable

- Annual review of progress against the agreed programme with the aim of completing all work within the specified timeframe.

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

The progress of work within ISO/TC 89 depends on an active participation of people from all regions in the affairs of ISO/TC 89, its subcommittees and working groups.

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