

# COMMISSION OF THE EUROPEAN COMMUNITIES

COM(92) 278 final - SYN 436

Brussels, 15 July 1992

Proposal for a  
COUNCIL DIRECTIVE  
on packaging and packaging waste

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(presented by the Commission)

## EXPLANATORY MEMORANDUM

### I. INTRODUCTION

- 1.1. In the European Community, there are more than 100 million households generating waste from consumer packaging and, in addition, all industrial and commercial enterprises produce packaging waste of various kinds. The estimated amount of packaging waste produced in the Community is 50 million tonnes (25 from households, 15 from services and 10 from industry) of which only about 9 million tonnes, an average of 18%, are recycled with widely varying levels between Member States and for the different materials.
  
- 1.2. Packaging plays a very important economic and social role by permitting the safe worldwide transport of products thus enlarging consumer choice; by preserving packed goods in such a way that production and consumption can be matched worldwide; by informing the consumer about the nature of the packed good and its compliance with legal requirements as well as about health care, price, conservation, use, danger and other useful information; by allowing the portioning of products into the weight and volume most appropriate to consumer usage; by shaping the product into stackable units so as to ensure optimization of transport and space use; by allowing the branding of the product in order to assure easy identification by the consumer and to position the product as to price-class, target-group and usage; by facilitating product diversification so as to adapt the product to the different consumer usages; by assuring the most hygienic way to handle and transport the product thus eliminating contamination and illness; by concentrating waste at the packers plant thus avoiding dissemination at household level.
  
- 1.3. Until recently, the environmental regulation of packaging in most countries has been exclusively focused on containers of liquids for human consumption. The changes that have occurred in this market, such as one-way packaging replacing refillable packaging, were highly visible as they included a noticeable rise in the amount of packaging waste to be disposed of and a dramatic increase in litter. The response has often taken the form of mandatory deposit systems. The OECD contributed to the debate in the 1970s and in a recommendation adopted in February 1978, the OECD Council stated that Member Countries should develop systems of distribution using refillable containers covering as much as possible of the beverage trade.

- 1.4. While the emphasis on liquid food containers has not been entirely replaced, consideration is now moving to all packaging. The principal reason for this shift is the presence of a worldwide solid waste disposal crisis, which has triggered in many countries the identification of packaging as a priority waste stream for action. Packaging occupies an important place in the municipal waste stream, and within the packaging sector, there are categories equal to or even more significant than beverage containers. It has to be stressed that the share of one-way beverage containers in domestic waste is about 5% by weight while the share of all packaging in domestic waste is 25 - 35% by weight.
- 1.5. The Commission has not yet addressed the overall problem of packaging and packaging waste. Until now, the Community has dealt with the subject of packaging in Council Directive 85/339/EEC of 27 June 1985 on containers of liquids for human consumption<sup>(1)</sup>, which has as its purpose to provide for a series of measures relating to the production, marketing, use, recycling and refilling of containers of liquids for human consumption, and to the disposal of used containers, in order to reduce any impact on the environment and to encourage a reduction in the consumption of energy and raw materials. The implementation of this Directive has been disappointing and Member States have adopted a variety of different approaches. The differences between the measures taken by Member States did not permit the development of a satisfactory situation with regard to the protection of the environment and have been, and may continue to be, at the root of obstacles to the free movement of goods within the Community.
- 1.6. Denmark introduced a system according to which all containers for beer and soft drinks had to be returnable and had to be marketed only in approved reusable containers. The marketing of non-approved containers was thereby limited to 3000 HL per producer per year. In its judgment in Case 302/86, Commission v. Denmark the European Court of Justice held that quantitative restriction of the marketing of beer and soft drinks in non-approved containers laid down in the Danish legislation is incompatible with Article 30 of the EEC Treaty. The Danish requirement that foreign manufacturers must either use only containers approved by national authorities or not market annually more than a certain volume was regarded to be disproportionate. Yet, the Court considered that in the absence of common rules the obligation imposed by national legislation to establish a deposit-and-return system for empty containers must be regarded as necessary to achieve the objectives pursued in relation to the protection of the environment so that the resulting restrictions on the free movement of goods cannot be regarded as disproportionate.

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(1) OJ No 176, 6.7.1985.

## 2. CONFRONTING THE PROBLEM

- 2.1. Packaging waste is a very complex waste stream to regulate. Packaging is manufactured in a variety of forms (bottles, jars, boxes, trays, films, bags, pallets, etc.) and of many different materials (paper and cardboard, metal, plastic, glass, wood, textile and combinations thereof). Furthermore, in addition to "sales packaging or primary packaging" there exist "grouping packaging or secondary packaging" and "transport packaging or tertiary packaging".
- 2.2. The environmental effects of the life cycle of different packaging materials and different forms of packaging are not thoroughly understood. As there is not yet a generalized agreement on Life Cycle Analysis methodology and interpretation, comparison in terms of environmental soundness between types of packaging, systems of packaging and materials used is very difficult. The impact of packaging waste is made greater by the presence of heavy metals and other hazardous substances in some types of packaging. This is a cause for concern due to their presence in emissions or ash when packaging is incinerated, or in leachate when packaging is landfilled.
- 2.3. Taking into account the uncertainties about how best to reduce the amount and impact of packaging waste, many countries are developing policies on packaging and packaging waste in general, whether by a regulatory approach or by voluntary agreements. In either case, responsibility is partly or entirely being put upon economic operators to find solutions to the problems and to develop appropriate substitutes as necessary.

## 3. SOME RECENT DEVELOPMENTS

- 3.1. The problem has been faced in different ways by Member States and other countries. Besides Denmark, other Member States have taken the lead in developing action on packaging and packaging waste, basically by introducing the shared responsibility of producers, users and distributors, together with public authorities and consumers, on the management of the packaging waste.

3.2. Some examples of specific action in Member States and other countries are:

- In Belgium, a voluntary agreement concerning prevention and recycling of packaging waste was signed on 26 June 1990 by the Flemish Government and 17 associations representing producers, users and distributors of packaging and recyclers. Under this agreement the industries concerned agreed to develop and finance an action programme to reduce, collect and recycle packaging waste, and to phase out toxic heavy metals in packaging. No distinction is being made between materials and/or systems of packaging and the whole action is related to consumer, commercial and industrial packaging waste. In the framework of this voluntary agreement, the separate collection of packaging waste generated by households is managed by local authorities, whilst the sorting operations, recycling and the marketing of recycled materials is managed by the private sectors involved. Furthermore, separate collection of post-consumer waste is partly financed by means of funds raised by the application of economic instruments (charges) in the field of waste treatment and disposal operations.
- In the Netherlands an open discussion between the Government and a large segment of industries resulted on 6 June 1991 in the conclusion of a "Packaging Covenant" covering the whole scope of packaging and packaging waste. One agreed target is that the production of packaging waste has to decrease: the 1986 level of about 2 million tonnes annually has to be reduced in the year 2000 by 10%.

This target is a very ambitious one, taking into account that if no action is taken and if packaging continues to grow at pre-1986 rates, the packaging waste output would be 2.8 million tonnes in the year 2000. Furthermore, the management of the remaining waste output is focused on material recycling. Trade and industry are obliged to bring the 1986 material recycling rate of 25% to at least 60% in the year 2000. The "Covenant" provides also for the ban of harmful materials. Another target is that landfilling of packaging waste will be forbidden by the year 2000.

- The German Federal Government adopted on 12 June 1991 an Ordinance on the Avoidance of Waste from Packaging imposing upon manufacturers and/or distributors the obligation to take back packaging for reuse or recycling independently of the public waste disposal system. As an incentive for consumers to return one-way packaging, a deposit of DM 0.50 is to be introduced in the sectors of beverages and washing and cleaning materials. However, the opportunity is provided to establish specific collection systems, to replace point of sale collection and mandatory deposits. To ensure that such systems realize the objectives of the Ordinance, strict requirements are laid down for collection and sorting quotas and materials recycling.

The Dual Collection System is an example of such a specific collection system being developed by trade and industry. It provides for local collection of packaging financed by the industries participating in the system. Packaging included in the system will be marked with a "green dot" symbol to serve as a reminder to the consumer to return the packaging to the collection system after use and to identify adherence of the product to a specific collection system.

- In France, a Decree on the elimination of packaging waste was adopted on 1 April 1992. This decree shows similarities both with the voluntary agreement signed in the Flemish Region in Belgium, and with the German Ordinance. Economic operators are, in the sense of the decree, obliged:
  - to establish a deposit system for their packaging, or
  - to join a state recognized organization (Eco-Emballage),  
or
  - to organize an autonomous collection network for their packaging after approval from the competent authorities.
- In Canada, a National Packaging Protocol was adopted in 1990. Under this, packaging waste is to be reduced by 20% from 1988 levels by the year 1992, to 35% by 1996 and to 50% by 2000. Half of the reduction is to come through source reduction and reuse measures, the other half through materials recycling. Manufacturers are asked to meet the targets voluntarily, otherwise a regulatory framework will be implemented.

- Switzerland has legislation affecting only beverage containers. Manufacturers and importers are authorized to market drinks only in packaging which is refillable or recyclable. If recycling rates of about 90% for glass, metal and plastic beverage containers are not met by 1993, then all beverage containers will be subject to mandatory deposits. The use of PVC containers is banned.
  
- In Austria, a Decree sets goals for refilling and recycling of beverage containers: 90% for beer and mineral waters, 80% for non-alcoholic beverages and 40% for fruit juice and fruit drinks.
  
- The Nordic countries have introduced deposit and refund systems and taxes. In 1990, the Nordic Council decided to prepare an Action Program for Packaging in which the objectives for the year 2000 are: - reduction in the volume of packaging by 15%; an increase in the rate of recyclable packaging in the field of beverage containers up to 75% and to 25% in the field of detergent packaging; a general target of 80% recovery of packaging materials. The Program envisages the elimination of the use of PVC and other environmentally harmful packaging materials and components.

#### 4. INTERNAL MARKET CONSIDERATIONS

- 4.1. As mentioned before, in view of the breadth of choice and options available to Member States, the implementation of Directive 85/339 has created difficulties. The differences between the measures taken by Member States have been at the root of obstacles to the free movement of goods within the Community, resulting in a situation which runs counter to the achievement of the internal market. The judgement of the Court in the Danish Case made it quite clear that, in order to prevent obstacles to free movement in this area, common rules are needed governing the measures to be taken by the Member States to achieve the aim of the Directive as well as the conditions to be complied with in adopting these measures.
  
- 4.2. The services of the Commission are currently examining the German Decree on Packaging to determine whether a violation of Community law, and in particular with respect to the free movement of goods (Articles 30 to 36 of the EEC Treaty) and competition rules (Articles 85 and 86 of the EEC Treaty), exists de jure or in practice.

- 4.3. The goal of the internal market would clearly be lost from sight if Member States continue to proceed independently, the lack of harmonization giving rise to interference with the free marketing of merchandise in the Community.

5. POSSIBLE RESPONSES

- 5.1. A number of courses of action can be considered in the present situation:

- (a) Non action is not a possible option at present as the events have progressed beyond the situation considered in Council Directive 85/339/EEC. The absence of action shall also have a negative impact on the necessary protection of the environment and diverging measures taken by Member States may continue to create problems related to the internal market.
- (b) Propose a new Framework Directive by enlarging the scope of Council Directive 85/339/EEC on containers for liquid foods to all packaging, with subsequent proposals for the introduction of specific objectives and criteria related to the internal market. However, developments have already passed beyond this point, and several Member States are already preparing new specific actions.
- (c) Enlarge the German approach based upon collection systems and charges. However, this would not easily fit with those Member States which have already started their own systems or adopted different approaches. Therefore, it would not be opportune to attempt to transfer the German system to Community level if another solution can be found.
- (d) Fix Community objectives to be realized by means of voluntary agreements at Community level. This would be similar to the CFC-case if there were to be framework legislation. The success would depend on the goodwill of trade and industry. However, the number of partners is very large as all trade sectors are concerned and different materials are involved. Such voluntary agreements could raise problems as to the competition rules of the Treaty.



(e) Propose a completely new Directive dealing with all packaging and packaging waste to ensure a high protection of the environment and the necessary degree of harmonization of national policies, based upon:

- harmonized measures;
- a normative approach;
- strict harmonization of criteria on the basis of which national practices may be developed.

The latter course has been judged to be the most promising and appropriate.

## 6. COMMENTS ON THE PROPOSAL

### A. GENERAL

From the point of view of efficient waste management and to avoid a sectoral approach, the scope of the Directive covers all packaging. The primary objective of the Directive is to materialize the main principles of the Community Strategy on waste management in the field of packaging waste. The management of packaging and packaging waste is being approached through the following hierarchy: prevention and reduction of the quantities of packaging waste produced and of the harmfulness of packaging waste; promotion of the reuse of packaging, recovery of the packaging waste whose production cannot be avoided; and finally reduction of final disposal to the very strict minimum.

Changing the Community policy in the field of packaging waste is not only related to extending the scope of this policy to all packaging but also to the effect of the wide variety of measures adopted by the Member States that might give rise to obstacles to trade and distortion and restriction of competition. Therefore the purpose of the Directive is also to approximate national policies on the subject.

B. THE LEGAL BASIS OF THE PROPOSAL

Article 100a of the Treaty is to be considered as the most appropriate legal basis for the Directive. Besides strengthening the protection of the environment, the Directive points towards the completion of the internal market. The current differences in national provisions concerning the packaging waste problem are liable to distort competition, affect the free movement of goods in the common market and give rise to differences in the level of protection of the environment. To comply with the objectives of the Directive, mandatory targets are fixed and Member States have to take specific measures on a harmonized basis in order to attain the targets. Furthermore, the Directive contains a series of criteria to which national provisions have to respond in order to minimize divergences and ensure a harmonized framework of measures at Community level.

C. COMMENTS ON SOME INDIVIDUAL ARTICLES AND THE ANNEXES OF THE PROPOSED DIRECTIVE

Article 1: Objectives

The primary objectives of the Directive are to approximate national provisions, to prevent and reduce the quantity of packaging waste produced and to promote vigorously the recovery of packaging waste, the production of which cannot be avoided, and this within the framework of a harmonized Community policy in the field of packaging and packaging waste management.

Article 2: Scope

All packaging is covered by the Directive as there is no reason to develop or continue with a Community policy on the basis of a one-sided or a sectoral approach.

This Article also states that packaging waste to be considered as hazardous waste, besides having to comply with the provisions of this Directive, shall be subject to specific management schemes (return, collection, treatment) if appropriate and necessary in conformity with Council Directive 91/689/EEC on hazardous waste.

### Article 3: Definitions

In order to clarify the terms used in the Directive and their precise meaning and to contribute to a common terminology in the field of packaging and packaging waste at Community level, a series of definitions is provided dealing with packaging classification, packaging waste, packaging management and associated concepts.

Certain definitions refer to definitions contained in Council Directive 75/442/EEC as modified by Council Directive 91/156/EEC.

### Article 4: Targets

Directive 85/339/EEC on containers of liquids for human consumption does not specify any targets to be reached. In various Member States mandatory targets for all types of packaging waste have been fixed on a regulatory basis or have been agreed upon by means of voluntary agreements. Some of the systems show that the existence of different targets can create unjustified barriers to trade or lead to distortion of competition. It is therefore important to harmonize the targets, taking a high level of environmental protection as a base. Accordingly, this Directive lays down quantified targets for recovery and minimization of final disposal for all packaging waste to be attained within a fixed period of time.

The targets are fixed on a long term basis only because of the diversity in and insufficiency of existing waste management infrastructures in the Member States and to the fact that the infrastructure development curve will inevitably be non-linear. This means that common intermediate targets are difficult to fix and would be unrealistic. Member States are therefore allowed and obliged to set themselves the time at which they will reach fixed intermediate targets in order to guarantee that measures will already be taken at an early stage to achieve the ten-year recovery, recycling and final disposal targets.

On the basis of several life cycle assessments it can be stated that, from an environmental point of view, recycling is preferable to incineration with energy recovery, mainly for the reason that energy and raw material requirements and discharges decrease if the waste is recycled and the processed material is used in new production processes.

This means that recycling must constitute the most important part of a global recovery target. The figure of 60% is a perfectly feasible one because for some materials (e.g. glass, paper and board) in certain countries this objective is already attained whilst for other materials (e.g. aluminium, plastic) the targets achieved are increasing year by year. Furthermore, many countries have already fixed targets of around 60% and besides in the proposal recycling also covers the recovery operations composting and regeneration.

It must be stressed that the level of such targets mainly depends on the question of whether or not return or collection systems have been set up. This also justifies the fact that the targets fixed in the proposal concern the removal from the waste stream.

Of course the existence of outlets for collected and recycled materials is a vital condition for ensuring the success of recycling. The existence of outlets depends in reality on the extent to which virgin raw materials are, and will be, replaced by recycled materials. This means that the elimination of all discrimination between the use of virgin and recycled materials in production processes and applications has to be ensured as long as the recycled materials comply with the characteristics of the products to be made out of them. This depends largely on industry.

This Article provides for a review of the targets at the latest six years after the entry into force of the Directive which could lead to amendments to take account both of scientific research and the progress achieved in the Member States.

During the early stages of development of this proposal the question of fixing a quantified limit on the amount of packaging waste was explored and initial drafts of the proposal included a stand-still provision based on the estimated average production in the Community for 1990 (150 kg per capita per year).

However, this provision was strongly criticised by the various groups and strict application of such a stand-still principle was questioned for the following reasons:

- the figure of 150 kg was not based on strong evidence and was not therefore a satisfactory reference value;
- the use of a single average value would conceal widely varying levels between Member States;
- such a target could conflict with the principle of equivalence of packaging materials, as it would discriminate against heavier materials (e.g. glass which is easier to recycle);
- such a target would conflict with the principle of equivalence of management options.

It was concluded that the targets for recovery and recycling and the definition of essential requirements should result in such a substantial reduction of waste that a stand-still provision is not necessary, given the inherent technical difficulties that could be foreseen together with its possible adverse impact upon trade. More concrete prevention-related targets can be developed once the database system is operational.

#### Article 5: Return and management systems

Since reuse of packaging and recovery of packaging waste are both valid means for minimizing its impact on the environment, it is proposed that all packaging has to be either reusable or recoverable. One of the main differences in terms of management between a reusable and a one-way packaging is that a reusable packaging is taken back by an economic operator and is recovered more easily when no longer reusable because its return is guaranteed; one-way packaging is not taken back and ends up in the waste stream. Ambitious targets as to the recovery of packaging waste can only become feasible and realistic when return systems are also organized and become compulsory for one-way packaging.

Member States shall take the appropriate measures to provide both the return of the used packaging and packaging waste and that it is effectively reused or recovered.

#### Article 6: Marking

This Article stipulates that each packaging will have to bear a harmonized marking indicating the reusable or the recoverable nature of the packaging and, if necessary, the nature of the packaging materials used.

The marking is made obligatory in order to make consumers more aware of the environmental advantages of reusable and recoverable packaging, to inform them of the correct way to deal with used packaging and to facilitate collection and sorting operations. The marking is introduced on a harmonized basis, as experience has shown that differences in marking are liable to result in technical barriers to trade. Furthermore, this Article stipulates that each packaging bearing the symbol 'reusable packaging' or 'recoverable packaging' should meet the essential requirements referred to in Article 7 of the Directive.

#### Article 7: Requirements

To achieve free circulation of packaging it seems necessary to define some essential requirements concerning its composition and reuse and recovery characteristics, taking into consideration criteria for the protection of the environment (Annex II). Thus, this Directive defines the essential requirements to be fulfilled by packaging and packaging waste; these requirements, because they are essential, can replace corresponding national provisions.

The Council, in its Resolution of 7 May 1985<sup>(2)</sup> concerning a "new approach to technical harmonization and standards", adopted the principles for a European standardization policy. Standardization improves the marketing conditions of products, while still ensuring that they can be marketed freely and, at the same time, can contribute to consumer health and environmental protection.

This implies that harmonized standards have to be developed, compliance with which will confer presumption of conformity with the essential requirements determined by the Directive. In this context it may be noted that the European Committee for Standardization (CEN) has created a Technical Committee on Packaging (TC 261), and that therefore an infrastructure to develop harmonized standards already exists.

Packaging will have to bear a symbol indicating that it meets the essential requirements. For reasons of efficiency and in order to avoid the use of double markings and confusion between conformity of the packaging with these essential requirements and conformity of its contents with essential requirements which may exist, the same symbols indicating the reusable or recoverable nature of a packaging (cf. Article 6 and Annex I) and thus not the CE mark have been chosen.

#### Article 8: Information system

This Article provides for the building up of a packaging and packaging waste database.

The need for reliable data on packaging and packaging waste is of paramount importance at the time of defining the magnitude, characteristics and evolution of the packaging subject. In order to evaluate the achievement of the objectives of this Directive and the effectiveness of measures, and to enable the Commission to take further initiatives, a database system has to be established at Community level.

Some Member States possess elaborate data on packaging, packaging waste, disposal systems, recycling and so on, others, the majority, do not.

Private marketing research companies have elaborated their own private databases as well as business federations who possess their own systems, related to their branch activity.

In conclusion, it can be said that:

- the level of development of databases in Member States is extremely diverse;
- the systems are not compatible and thus not comparable;
- existing data are sometimes more the result of guesswork than of scientific facts;
- no overall picture exists at Community level either of packaging production and consumption figures or of how packaging waste is being managed.

Hence the need for a harmonized national input-, output- and operating system.

Although such a database system seems complicated and costly, and therefore opposed and criticized by Trade and Industry, it must be said that specialized market research offices are putting these data on the market at reasonable prices and that, in Belgium for example, such databases are being developed jointly by Industry, Government and the Belgian Packaging Institute, at a price not exceeding ECU 200 000 as initial investment and about ECU 50 000/year as maintenance and operating costs.

#### Article 9: Consumer information

This Article emphasizes the key role consumers play in the management of packaging and packaging waste when making their choice between packaging systems and by effectively returning the used packaging. If there is no cooperation from the consumers' side no system will ever work effectively. It is therefore necessary that consumers are informed in a correct way about the management systems available for them to deal with their used packaging and packaging waste.

#### Article 10: Management plans

This Article underlines the need for integrating the management of packaging waste within the waste management plans of Member States. For reasons of rationalization and efficiency, it is proposed not to have separate management plans for packaging and packaging waste but to integrate them in the general waste management plans as already provided for in Council Directive 75/442/EEC on waste as amended by Council Directive 91/156/EEC.

#### Article 11: Economic Instruments

The Environment Council of 29 October 1990 identified the development of economic and fiscal instruments in the field of solid waste as a priority. This Article responds to this statement.

Community funds can be used to finance the investments made necessary by this Directive within the framework of their own rules.



Article 12: Standardization

This Article contains a series of measures specifically dealing with the manufacturing and use of packaging to be undertaken at Community level. They deal with the prevention of packaging waste, the standardization of packaging where appropriate in order to facilitate and rationalize their management, with the promotion of the use of recycled materials and the use of life cycle analysis.

To achieve free circulation of packaging it seems necessary to introduce such measures by means of a standardization procedure.

Article 13: Notification

This Article responds to the need for stricter monitoring of national measures, by means of a more systematic procedure for notifying draft measures to the Commission and the Member States, independently of the requirements to notify any proposed measure or voluntary agreement under other Community legislation.

Article 14: Obligation to report

This Article provides for a three-yearly reporting obligation procedure by Member States, in line with similar reporting requirements adopted in other Community legislation in the field of waste.

Article 15: Provision of conformity

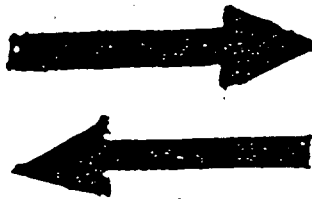
This Article ensures access to the market for all packaging in conformity with the various provisions contained in the previous Articles.

Articles 16 and 17: Technical Committee and Committee procedure

In order to adapt the provisions of the Directive to technical progress, it is proposed to establish a consultation committee. The same procedure will be used for primary packaging for medical devices and pharmaceutical products and small packaging.

**ANNEX I: MARKING**

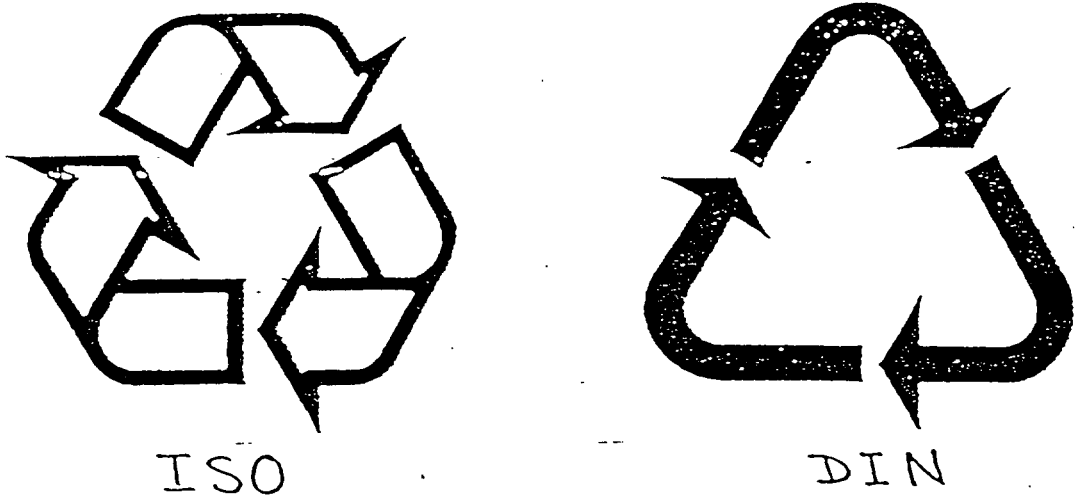
**(a) Marking illustrating the reusable nature of a packaging**



The proposed pictogram indicates to the final consumer that the packaging is reusable for the same purpose and that it is taken back by an economic operator to be effectively reused.

This pictogram can be understood as a clear indicator of a two-directional flow, showing logical coherence and simplicity.

(b) Marking illustrating the recoverable nature of a packaging



The proposed equivalent symbols are already widely used throughout the world to indicate the recyclable nature of the material or that the product is made of recycled material. It is now proposed to use them only to indicate the recoverable nature of the packaging.

These equivalent pictograms are already registered under the codes ISO 7000 - 1135 and DIN 6120.

(c) Marking illustrating the nature of the materials used

This system indicates the non compulsory but additional marking to be used for material identification for the purpose of facilitating the reuse or recovery. This supplementary marking consists of two numbers and/or an abbreviation of the material used and is in conformity with an existing DIN standard as shown below for plastic materials.

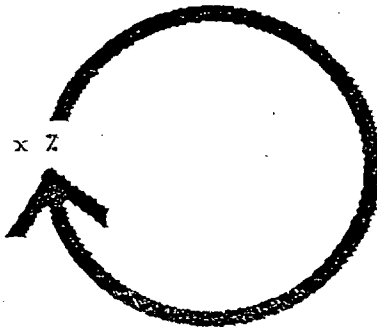
Supplementary marking	01	02**)	03	04**)	05	06	07
Type of plastics material	PET	PE-HD	PVC	PE-LD	PP	PS	C*)

\*) 0 stands for "others".

\*\* ) symbols in DIN 7728 part 1 (DIN 7728 part 1 is conform to ISO 1043 part 1).

The first number, 0, designates the type of packaging material, i.e. plastic. The second number indicates the kind of plastic. The numbers do not represent any relative order of the individual materials. The supplementary marking has to be located in the centre of or below the graphical marking indicating the reusable or recoverable nature of the packaging.

(d) Marking illustrating that packaging is made of recycled materials



The proposed pictogram is already used in a variety of similar forms and for purposes related to the separate collection and recyclable nature of materials or to indicate that the product is made of recycled materials, which is the purpose for which its use is proposed in this Directive.

No ISO or other norm exists for this symbol, which nevertheless indicates in a simple way the percentage of recycled materials of which a product is manufactured. Its use is non-compulsory, but uniform if used.

## ANNEX II: OUTLINE OF ESSENTIAL REQUIREMENTS

This Annex deals with some essential requirements to which packaging has to respond. These requirements only concern conditions of qualitative composition and conditions relative to the reuse and/or recovery processes. All of these requirements are already partly or completely covered by the items to be worked out by the European Committee for Standardization (CEN) in its Technical Committee 261 "Packaging".

The importance of this Annex lies in the fact that it harmonizes, at Community level, the requirements for the reusable and recoverable nature of a packaging, and the characteristics of the packaging in order to minimize the impact on the environment when packaging waste or residues of packaging waste operations are disposed of.

## ANNEX III: INFORMATION SYSTEM/DATABASE ON PACKAGING AND PACKAGING WASTE

This Annex deals with the basic information required to define the magnitude, the characteristics and the evolution of the packaging and packaging waste subject.

In fact two kinds of information are dealt with:

- consumption of packaging;
- generation of packaging waste.

One way to have an idea of quantities and volumes of packaging waste is to measure it at the place where it is generated, collected and disposed of. Formats 1, 2 and 3 concern such data. Some Member States already possess such information, in some cases limited to one year (Belgium/Flanders, 1985) and in others obtained on a yearly survey (Netherlands, Germany). Such methods of collecting data from the waste stream have to be based on representative sampling methods which entail relatively high costs. These methods have the disadvantage that they only provide limited useful information, not in sufficient detail to be used as a policy instrument for packaging waste management. More reliable and specific data can be obtained if one departs from consumption data as provided for in formats 4, 5 and 6. The consumption data must be developed in the following chronological order:

- listing of product families to be recorded;
- for each product family: types of packaging used, its unit volume and material of which they are made, the number of units used, its weight by unit and total weight, the number of rotations and life span for reusable packaging and the total amount of packaging waste generated (see filled-in example of Format 4 included in the Annex).

The information sources used for the proposal of this database are listed in the Annex.

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THE COUNCIL OF THE EUROPEAN COMMUNITIES,

Having regard to the Treaty establishing the European Economic Community and in particular Article 100a thereof;

Having regard to the proposal from the Commission<sup>(1)</sup>;

In cooperation with the European Parliament<sup>(2)</sup>;

Having regard to the opinion of the Economic and Social Committee<sup>(3)</sup>;

1. Whereas the Communication from the Commission to the Council and to Parliament on a Community Strategy for Waste Management<sup>(4)</sup>, adopted by the Council in its Resolution of 7 May 1990<sup>(5)</sup> underlines the following hierarchy for waste management: prevention first; recovery and in particular, recycling second and final disposal only as a last resort;
2. Whereas packaging waste contributes in a great proportion to the increase in the volume of waste and to the saturation of landfills and if not recovered and in particular not recycled, packaging waste presupposes a waste of raw materials and energy;

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(1) OJ No

(2) OJ No

(3) OJ No

(4) [SEC(89) 934 final, 18.9.1989].

(5) OJ No C 122, 18.5.1990, p. 2.



3. Whereas Council Directive 85/339/EEC of 27 June 1985 on containers of liquids for human consumption<sup>(6)</sup> was the first step in reducing the environmental impact of packaging and packaging waste;
4. Whereas a sectoral or a one-sided approach is no longer justified and Community policy must be orientated towards all kinds of packaging waste whether it is released at industrial, commercial, office, shop, service or household level; therefore Directive 85/339/EEC should be replaced by a new directive with the widest possible scope;
5. Whereas, as long as life-cycle assessments justify no clear hierarchy, reusable packaging and recoverable packaging waste and, in particular, recyclable packaging waste are to be considered as equal valid methods for reducing the environmental impact of packaging and that this requires the setting up in the Member States of systems guaranteeing the return of used packaging and/or packaging waste;
6. Whereas on the basis of several life-cycle assessments it can be stated that from an environmental point of view recycling must constitute an important part of recovery, mainly for the reason that energy and raw material requirements and discharges decrease if the waste is recycled and the processed material is used in new production processes;
7. Whereas the current differences in national provisions concerning the management of packaging and packaging waste are liable to distort competition and affect the free movement of goods in the internal market, and give rise to differences in the level of protection of the environment;

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(6) OJ No L 176, 6.7.1985, p. 18.

8. Whereas it is necessary to approximate measures to be undertaken by Member States dealing with the management of packaging waste in order to contribute to the completion of the internal market, avoid obstacles to trade and distortion and restriction of competition within the Community and to ensure a high level of protection of the environment;
9. Whereas, in order to contribute to the establishment and smooth functioning of the internal market, it appears necessary to harmonize national provisions concerning the management of packaging and packaging waste and this by the:
  - introduction of harmonized measures,
  - definition of harmonized essential requirements and standards, and
  - establishment of criteria with which national measures have to comply;
10. Whereas the existence of different targets in Member States regarding the recovery and the recycling of packaging waste, can create unjustified barriers to trade and lead to distortion of competition; whereas it is therefore important to harmonize from now on such targets to be attained by the Member States, taking a high level of protection of the environment;
11. Whereas, in order to avoid obstacles to trade and distortion of competition, it is necessary to define the essential requirements as related to the composition and the nature of reusable and recoverable packaging; whereas the national provisions relating to the production and marketing of packaging and the management of packaging waste shall abide by these essential requirements;
12. Whereas it is necessary that the return systems to be set up shall be designed in such a way as to avoid barriers to trade and distortion of competition;

13. Whereas the need is felt that to reach the abovementioned objectives, quantified targets must be defined;
14. Whereas the provisions of this Directive should contribute to maintaining and improving upon the level of reuse, recycling and recovery of packaging and packaging waste which has been achieved at the time of implementation of this Directive;
15. Whereas it is necessary to minimize the total impact on the environment of packaging and packaging waste, taking into account not only quantitative but also qualitative aspects and chemical composition;
16. Whereas the presence of noxious metals in packaging is part of the total concern in the light of their likely presence in emissions or ash when packaging is incinerated, or in leachate when packaging is landfilled; whereas it is desirable as a first step to reduce the toxicity of packaging waste to avoid the addition of the noxious heavy metals to packaging;
17. Whereas Community markings are needed to indicate the reusable and/or recoverable nature of packaging and for the identification of the nature of the packaging material in order to inform consumers, communities and industrial operators of the correct way to deal with used packaging and packaging waste, to facilitate collection, sorting, reuse and recovery activities and to avoid obstacles to trade;
18. Whereas the need for Community-wide data on the volume, weight and type of packaging and packaging waste has to be recognized in order to evaluate the achievement of objectives, the effectiveness of measures and to enable further initiatives to be taken with respect to the packaging waste problem;

19. Whereas the consumer plays a key role in the management of packaging and packaging waste and thus has to be adequately informed in order to adapt his behaviour and attitude; whereas it is essential that enterprises become more conscious of the extent to which their products and packaging become waste, and that they accept responsibility for such waste and that the development and implementation of measures shall involve and require the close cooperation of all the partners within a spirit of shared responsibility;
20. Whereas Member States shall take into account, when adopting measures to implement this Directive, the problems which will result for small and medium-sized enterprises (SMEs), on condition that this does not affect the provisions of this Directive or of Community law;
21. Whereas economic instruments can have a considerable impact on the management of packaging waste by promoting and funding more environmentally sound practices;
22. Whereas, in order to avoid discrimination, the measures taken by Member States to achieve the objectives must be integrated into a policy which covers all packaging and packaging waste and is not limited to any specific type of packaging or packaging material, a product or category of products;
23. Whereas the Commission must be assisted by a technical committee in order to adapt the provisions and the Annexes to the Directive to scientific and technical progress;
24. Whereas drafts of measures to be taken by Member States should be notified to the Commission so that it can be established whether or not they comply with the Directive, and to request, if necessary, that the introduction of such measures, or part of them, be postponed. Such notification and examination is without prejudice to the obligations of the Member States pursuant to the Treaty and other relevant Community legislation;

25. Whereas the work for the purpose of amending Council Directive 83/189/EEC<sup>(7)</sup>, as last amended by Commission Decision 90/230/EEC<sup>(8)</sup>, must be accelerated in order to permit the coverage of notification arising from the scope of this Directive;
26. Whereas for all the reasons referred to above it appears necessary for the Community, whilst limiting itself to what is strictly necessary, to adopt the appropriate harmonization measures,

HAS ADOPTED THIS DIRECTIVE:

#### **Article 1: Objectives**

This Directive aims to harmonize national measures concerning the management of packaging and packaging waste in order to reduce their impact on the environment, to contribute to the completion and functioning of the internal market and to avoid obstacles to trade and distortion and restriction of competition within the Community.

To attain these objectives this Directive establishes targets and the essential requirements which packaging must meet, and provides for measures for the prevention of the production of packaging waste and for the promotion of return, reuse and recovery operations relating to packaging and packaging waste in order to ensure public health and the protection of the environment.

#### **Article 2: Scope**

This Directive covers all packaging placed on the market in the Community and all packaging waste, whether it is used or released at industrial, commercial, office, shop, service or household level, regardless of the materials used and whether it concerns primary, secondary or tertiary packaging.

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(7) OJ No L 109, 26.4.1983, p. 8.

(8) OJ No L 128, 18.5.1990, p. 15.

This Directive shall apply without prejudice to the provisions of Council Directive 91/689/EEC<sup>(9)</sup> concerning hazardous waste.

**Article 3: Definitions**

For the purpose of this Directive:

(a) with respect to packaging classification:

1. "packaging" means all products made of any materials of any nature to be used for the containment, protection, handling, delivery and presentation of goods, from raw materials to processed goods, from the producer to the user or the consumer. Disposables used for the same purpose are to be considered as packaging too,
2. "sales packaging or primary packaging" means any packaging conceived so as to constitute a sales unit to the final user or consumer at the point of purchase,
3. "grouping packaging or secondary packaging" means any packaging conceived so as to constitute at the point of purchase a grouping of a certain number of sales units whether the latter is sold as such to the final user or consumer or whether it serves only as a means to replenish the shelves at the point of sale; it can be removed from the product without affecting its characteristics,
4. "transport packaging or tertiary packaging" means any packaging conceived so as to facilitate handling and transport of a number of sales units or grouped packagings in order to prevent physical handling and transport damage;

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(9) OJ No L 377, 31.12.1991, p. 20.

(b) with respect to packaging waste:

1. "used packaging" means the packaging itself left over once it has been emptied or the product has been unpacked,
2. "packaging waste" means any packaging or packaging material covered by the definition of waste in Council Directive 75/442/EEC<sup>(10)</sup>,
3. "packaging waste management" means the management of waste as defined in Directive 75/442/EEC,
4. "prevention" means the reduction of the quantity and/or the harmfulness of waste at production processes level and at product level,
5. "recovery" means any of the applicable operations provided for in Annex II B to Directive 75/442/EEC,
6. "recycling" means the recovery of the waste materials for the original purpose or for other purposes excluding energy recovery; recycling means also regeneration and composting,
7. "disposal" means any of the applicable operations provided for in Annex II A to Directive 75/442/EEC;

(c) with respect to packaging management:

1. "returnable packaging" means any packaging whose return from the consumer or final user is assured by specific means, (separate collection, deposits, etc.), independently of its final destination, in order to be reused, recovered, or subject to specific waste management operations,

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(10) OJ No L 194, 25.7.1975, p. 39.

2. "non-returnable" packaging means any packaging for which no specific provisions for their return from the consumer or final user are established,
  3. "reusable packaging" means any packaging which has been conceived and designed to accomplish within its life cycle a number of trips or rotations in order to be refilled or reused for the same purpose for which it was conceived; such packaging will become packaging waste when no longer subject to reuse,
  4. "one-way packaging" means any packaging not being used more than once for the same purpose;
- (d) "economic operators" in relation to packaging means suppliers of packaging materials, packaging producers and converters, fillers and users, traders and distributors.

#### Article 4: Targets

1. In order to comply with the objectives of this Directive, Member States shall take measures to attain the following targets:
  - (a) regarding recovery of packaging waste: no later than 10 years from the date by which this Directive must be implemented in national law, 90% by weight of the packaging waste output will be removed from the waste stream for the purpose of recovery. Within this general recovery target, and with the same time limit, 60% by weight of each material of the packaging waste output shall be removed from the waste stream for the purpose of recycling,
  - (b) regarding minimization of final disposal of packaging waste: no later than 10 years from the date by which this Directive must be implemented in national law, final disposal of the packaging waste output will be limited to the residues of the collection and sorting activities, with a limitation to not more than 10% by weight of the packaging waste output.



2. Member States shall specify in the chapter on the management of packaging waste of their waste management plans as indicated in Article 10, intermediate targets for recovery, recycling and final disposal of packaging waste. They shall also specify in this chapter at what time the following targets will be attained simultaneously:

- removal of 60% by weight of the packaging waste output from the waste stream for the purpose of recovery,
- removal of 40% by weight of each material of the packaging waste output from the waste stream for the purpose of recycling.

This information must be provided in the first report to the Commission as required in Article 14.

3. If scientific research, or any other evaluation technique, such as eco-balances, prove that other recovery processes show greater environmental advantages, the targets for recycling can be modified in accordance with the procedure laid down in Article 17.

Also on the basis of scientific research and of the progress achieved in the Member States, the Commission shall re-examine the targets fixed in this Article, and shall within than six years from the date by which this Directive must be implemented in national law, adopt any appropriate measures in accordance with the procedure laid down in Article 17.

Article 5: Return and management systems

1. Member States shall take the necessary measures to ensure that, within five years from the date by which this Directive must be implemented in national law, systems are set up to:
  - (a) provide for the return of all used packaging and/or all packaging waste from the consumer or other final user in order to channel it to the most appropriate management alternatives,
  - (b) ensure that the used packaging and/or packaging waste collected is effectively reused or recovered.

These systems shall ensure the coverage of imported products under non-discriminatory conditions and shall be designed in such a way that there are no barriers to trade or distortions of competition.

2. The measures referred to in paragraph 1 shall form part of a policy covering all packaging and packaging waste and shall take into account, in particular: consumer protection, health, safety and sanitary requirements; protection of the quality, the authenticity and the technical characteristics of the packed good and materials used as well as industrial and commercial property rights.
3. The return and management systems set up in the different Member States, in accordance with the provisions of this Directive, shall be considered and recognized as equivalent throughout the whole Community and participation in such systems shall be open to the economic operators of the sectors concerned.

Article 6: Marking

1. To facilitate the reuse and recovery of packaging and packaging waste, Member States shall take the necessary measures to ensure that, within five years from the date by which this Directive must be implemented in national law, all packaging shall comply with the marking provisions laid down in this Article and in Annex I. Packaging shall bear the appropriate marking/s either on the packaging itself or on the label.
2. All reusable and recoverable packaging shall bear the mark/s shown in Annex I. Fixing these marks on a packaging means that:
  - the used packaging or the packaging waste is subject to established return and management systems,
  - the packaging itself and the provisions for the management of used packaging and packaging waste comply with the provisions of this Directive and the essential requirements referred to in Article 7 and described in Annex II.
3. To facilitate return, reuse and recovery, packaging shall indicate, when needed for its identification and classification, the nature of the packaging material/s used, in accordance with the identification system described in Annex I. The numbering and abbreviations on which the identification system is based shall be determined by the Commission, in accordance with the procedure set out in Article 17 not later than 12 months after the adoption of this Directive. It shall decide which materials shall be subject to the identification system, in accordance with the same procedure.
4. In order to inform the consumer or final user whether or not the packaging is made of recycled material, such packaging may bear the mark shown in Annex I.

5. Member States shall take the necessary measures to ensure that any markings other than those set out in Annex I, intending to serve the same purpose, shall be prohibited. The marks set out in Annex I may not be used for any purposes other than those envisaged in this Article.
6. The Commission shall, in accordance with the procedure set out in Article 17, no later than 12 months after the adoption of this Directive, adopt the markings required by this Article and which comply with criteria of visual perceptibility, readability and understanding by the European consumer.
7. By the procedure set out in Article 17 the Commission shall decide to what extent derogations from the marking provisions will be needed.
8. The Commission shall draw up, in accordance with the procedure set out in Article 17, the detailed rules for the marking system. These rules shall be published in the Official Journal of the European Communities.
9. The requirements referred to in paragraphs 1 to 8 shall be applied without prejudice to other marking or labelling schemes, set up at Community level, for health, security, environmental protection or consumer information purposes.
10. The provisions of this Article are without prejudice to the possibility that the markings described in it can be used by economic operators on materials and products other than packaging for analogous purposes, as long as they are effectively reusable, recoverable or made out of recycled material; their use shall be communicated to and approved by the competent authorities.

11. Member States shall take the necessary measures to ensure:

- the provision of information on the purpose and application of all the markings,
- that proper use of the markings by economic operators is verified.

#### Article 7: Essential Requirements

1. Member States shall take all appropriate measures to ensure that packaging may be placed on the market only if it complies with the essential requirements set out in Annex II.
2. Member States shall presume compliance with the requirements set out in Annex II in the case of packaging which is in conformity:
  - (a) with the relevant harmonized standards, the reference numbers of which have been published in the Official Journal of the European Communities. Member States shall publish the reference numbers of national standards transposing these harmonized standards,
  - (b) with the relevant national standards referred to in paragraph 3 in so far as, in the areas covered by such standards, no harmonized standards exist.
3. Member States shall communicate to the Commission the text of their national standards, as referred to in paragraph 2(b), which they regard as complying with the requirements referred to in this Article. The Commission shall forward such texts forthwith to the other Member States.

Member States shall publish the references of these standards. The Commission shall ensure that they are published in the Official Journal of the European Communities.

4. Where a Member State or the Commission considers that the standards referred to in paragraph 2 do not entirely meet the essential requirements referred to in paragraph 1, the Commission or the Member State concerned shall bring the matter before the Committee set up by Council Directive 83/189/EEC giving the reasons therefore. The Committee shall deliver an opinion without delay. In the light of the Committee's opinion, the Commission shall inform Member States whether or not it is necessary to withdraw those standards from publications referred to in paragraphs 2 and 3.

#### Article 8: Information Systems

1. Member States shall take the necessary measures to ensure that databases on packaging and packaging waste shall be established in order to enable Member States and the Commission to develop packaging and packaging waste management policies. For reasons of efficiency the required data may cover other components of a particular waste stream.
2. The databases shall serve the following purposes:
  - to provide information on the magnitude, characteristics and evolution of the packaging and packaging waste flows at the level of individual Member States;
  - to provide information on the economic parameters related to packaging and packaging waste management;
  - to provide information in order to be able to re-examine targets, to design the most appropriate measures to attain them and to evaluate their effectiveness.
3. To harmonize the characteristics and presentation of the data produced and to make the data of the Member States compatible, the databases shall be based on the formats described in Annex III.

4. Member States shall take into account the particular problems of small and medium-sized enterprises in providing detailed data.
5. The data obtained shall be made available for the first time three years after the date by which this Directive must be implemented in national law and shall be updated every three years. The results shall be communicated to the Commission in accordance with the reporting procedures set out in Article 14.

#### Article 9: Consumer Information

Member States shall take measures to ensure that consumers and other users are informed about the advantages of using reusable and recoverable packaging, about the meaning of the markings on packaging, about the return systems available for them to dispose of their used packaging and of packaging waste, and about the existing management plans for packaging as referred to in Article 10.

#### Article 10: Management Plans

1. In pursuance of the objectives and measures referred to in this Directive, Member States shall include in their waste management plans required by Article 7 of Directive 75/442/EEC a specific chapter on the management of packaging and packaging waste.
2. The chapter referred to in paragraph 1 shall include:
  - the intermediate and final objectives and targets to be achieved,
  - the measures to be adopted, which might be of a technical, economic or organizational character,
  - the justification of the measures adopted or of any modification of the targets as considered in the provisions of this Directive.

**Article 11: Economic Instruments**

Economic instruments may be adopted by Member States, in accordance with the provisions of the Treaty, to promote the objectives of this Directive.

**Article 12: Standardization**

The Commission shall promote, as appropriate, the elaboration of European standards relating in particular to:

- dimensions and shapes of packaging for agreed products in order to facilitate their reuse and rationalize and optimize management alternatives,
- modular distribution packaging for transport and distribution,
- product specifications for the use of recycled materials in the manufacturing of packaging and other products,
- criteria and methodology for life-cycle analysis on packaging.

**Article 13: Notification**

1. Without prejudice to Directive 83/189/EEC, before adopting such measures, Member States shall notify the drafts of measures which they intend to adopt within the framework of this Directive to the Commission, in order to permit the latter to examine them in the light of existing provisions and, where appropriate, to ask Member States to suspend their adoption.



2. If the proposed measure is also a technical matter within the meaning of Directive 83/189/EEC, the Member State concerned may indicate, when following the notification procedures referred to in this Directive, that the notification is equally valid for Directive 83/189/EEC.

#### Article 14: Obligation to report

Every three years, and for the first time on 1 April of the third year after the date by which this Directive must be implemented in national law, Member States shall send the Commission a report on the measures taken to implement this Directive. This report shall be based on a questionnaire, drawn up in accordance with the procedure referred to in Article 17, which the Commission shall send to the Member States six months before the said date.

On the basis of these reports, the Commission shall publish a consolidated report every three years, and for the first time on 1 April of the following year.

#### Article 15: Freedom to place on the market

Member States shall not impede the placing on the market on their territory of packaging which satisfies the provisions of this Directive.

#### Article 16: Adaptation to scientific and technical progress

The amendments necessary for adapting the provisions of this Directive to scientific and technical progress shall be adopted in accordance with the procedure laid down in Article 17.

This procedure shall also be applicable for amendments which need to be made to the provisions of this Directive applicable to primary packaging for medical devices and pharmaceutical products. The provisions relating to such packaging shall take into account the safety, performance and quality requirements which must be satisfied by them, in accordance with the provisions of Community law.

In addition, the Commission, in accordance with the same procedure, shall adopt the measures necessary to deal with any difficulties encountered in applying the provisions of this Directive to small packaging.

#### Article 17: Committee procedure

The Commission shall be assisted by a committee of an advisory nature composed of the representatives of the Member States and chaired by the representative of the Commission.

The representative of the Commission shall submit to the committee a draft of the measures to be taken. The committee shall deliver its opinion on the draft, within a time limit which the chairman may lay down according to the urgency of the matter, if necessary by taking a vote.

The opinion shall be recorded in the minutes; in addition, each Member State shall have the right to ask to have its position recorded in the minutes.

The Commission shall take the utmost account of the opinion delivered by the committee. It shall inform the committee of the manner in which its opinion has been taken into account.

**Article 18: Implementation in national law**

Member States shall adopt and publish the laws, regulations and administrative provisions necessary to comply with this Directive by(\*). They shall immediately inform the Commission thereof.

When Member States adopt these provisions, these shall contain a reference to this Directive or shall be accompanied by such reference at the time of their official publication. The procedure for such reference shall be adopted by Member States.

**Article 19**

Directive 85/339/EEC is hereby repealed with effect from(\*).

**Article 20**

This Directive is addressed to the Member States.

Done at Brussels,

For the Council  
The President

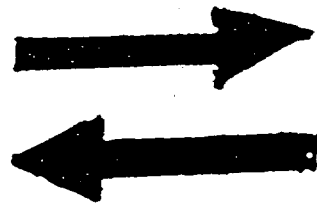
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(\*) 18 months after the adoption of this Directive.

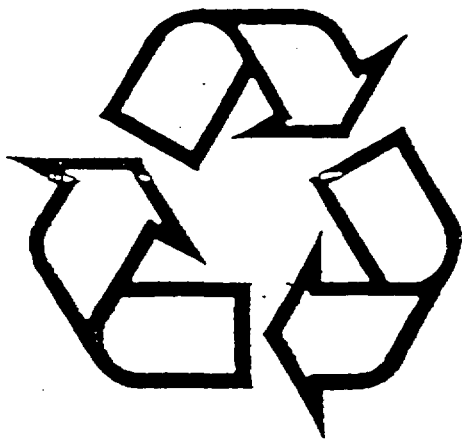
ANNEX I

Marking

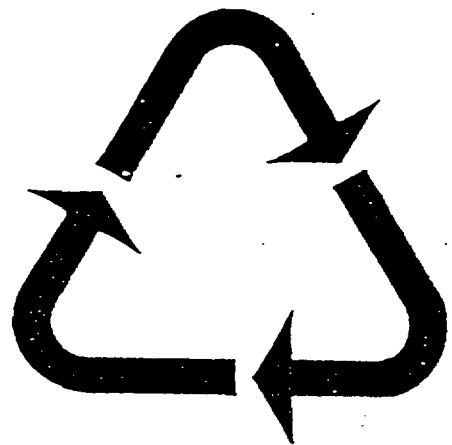
1.a Reusable packaging



1.b Recoverable packaging



OR

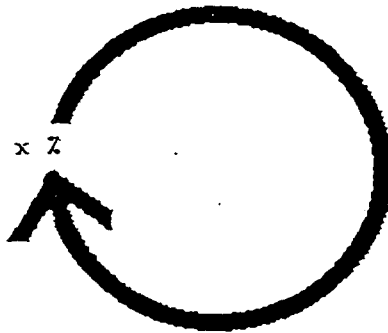


1.c Identification system

Plastic shall use a numbering from 1 to 19; paper and cardboard from 20 to 39; metal from 40 to 49; wood from 50 to 59; textiles from 60 to 69; glass from 70 to 79.

The identification may also be done by using the abbreviation of the used material(s) (eg HDPE: High Density Polyethylene). Numbering, or abbreviations, or both, may be used to identify materials. The said identification methods shall be located in the centre of or below the graphical marking indicating the reusable or recoverable nature of the packaging.

1.d Packaging made partly or entirely of recycled materials



x%: percentage of recycled material used in the manufacturing of the product.

ANNEX II

Outline of essential requirements on the composition and the reusable and recoverable nature of packaging

1. Requirements specific to the manufacturing and composition of packaging

- Packaging shall be so manufactured that the packaging volume and weight be limited to the minimum adequate amount to maintain the necessary level of safety and acceptance for the packed product and for the consumer,
- Packaging shall be designed, produced and commercialized in such a way as to permit its reuse or recovery and to minimize its impact on the environment when packaging waste or residues from packaging waste management operations are disposed of,
- Packaging shall be so manufactured that the presence of noxious metals and other hazardous substances as constituents of the packaging material or of any of the packaging components is limited to such a level as to minimize their presence in emissions, ash or leachate when packaging or residues from management operations of packaging waste are incinerated or landfilled,
- The sum of concentration levels of lead, cadmium, mercury and hexavalent chromium present in packaging or packaging components shall not exceed the following:

600 ppm by weight after 2 years of entry into force of this Directive,

250 ppm by weight after 3 years of entry into force of this Directive,

100 ppm by weight after 5 years of entry into force of this Directive.

2. Requirements specific to the reusable nature of a packaging

The following requirements must be simultaneously satisfied:

- the physical properties and characteristics of the packaging shall enable a number of trips or rotations in normally predictable conditions of use,
- possibility of processing the used packaging in order to meet health and safety requirements,
- fulfil the requirements specific to recoverable packaging when the packaging is no longer reused and thus becomes waste.

3. Requirements specific to the recoverable nature of a packaging

(a) Packaging recoverable in the form of material recycling

- packaging must be manufactured in such a way as to enable the recycling of at least "x"% by weight of the materials used into the manufacture of marketable products.

(b) Packaging recoverable in the form of energy recovery

- packaging waste processed for the purpose of energy recovery shall have a minimum inferior calorific value of 13 MJ/kg (approximate energetic value of paper and cardboard),
- the energy recovery operation may not give rise to ash residues exceeding "y"% by weight of the incinerated materials,
- if used as a substitute for other fuels (carburants), it should not have a greater impact on the environment, in terms of emissions and residues, than that of the substituted fuel.

(c) Packaging recoverable in the form of composting

- packaging waste processed for the purpose of composting shall be of such a biodegradable nature, that it should not hinder the composting process or activity into which it is introduced or diminish the quality of the compost.



ANNEX III

INFORMATION SYSTEM/DATABASE ON PACKAGING AND PACKAGING WASTE

The database will be built up by the following formats:

- FORMAT 1: Composition of municipal waste household level (mandatory presentation Annex III - a1)
- FORMAT 2: Composition of municipal waste other levels (mandatory presentation Annex III - a2)
- FORMAT 3: Packaging waste management (mandatory presentation Annex III - b)
- FORMAT 4: Product families to be recorded (Annex III - c) Consumption based primary packaging data (mandatory presentation + explanatory note Annex III - d1 - d2 - d3)
- FORMAT 5: Industrial packaging (mandatory presentation Annex III - e)
- FORMAT 6: Secondary and tertiary packaging consumption data (formats 4-5 related products) (mandatory presentation Annex III - f)

CONCEPT: COMPOSITION MUNICIPAL WASTE HOUSEHOLD LEVEL  
 UNITS: Kg, volume and %

COUNTRY:  
 YEAR:

COMPONENTS	KG	%	VOLUME
GLASS TOTAL			
PACKAGING: WHITE BROWN GREEN NON PACKAGING			
PAPER AND CARDBOARD TOTAL			
PACKAGING: CARDBOARD LAMINATES PAPER NON PACKAGING: NEWSPAPER - PERIODICALS OTHER			
PLASTICS TOTAL			
POLYOLEFINES - packaging - non-packaging POLYSTIRENES - packaging - non-packaging HALOGENATED POLYMERS - packaging - non-packaging PET - packaging - non-packaging OTHERS - packaging - non-packaging			
TEXTILES - packaging - non-packaging			
FERRO - packaging - non-packaging			
NON-FERRO - packaging - non-packaging			
WOOD - packaging - non-packaging			
LEATHER			
RUBBER			
STONE			
CARPETS			
ORGANICS			
OTHERS			
SUB TOTAL PACKAGING			
SUB TOTAL NON-PACKAGING			
TOTAL			

CONCEPT: COMPOSITION MUNICIPAL WASTE OTHER LEVELS  
 UNITS: Kg, volume and %

COUNTRY:  
 YEAR:

COMPONENTS	KG	%	VOLUME
<b>GLASS TOTAL</b>			
PACKAGING: WHITE BROWN GREEN NON PACKAGING			
<b>PAPER AND CARDBOARD TOTAL</b>			
PACKAGING: CARDBOARD LAMINATES PAPER NON PACKAGING: NEWSPAPER - PERIODICALS OTHER			
<b>PLASTICS TOTAL</b>			
POLYOLEFINES - packaging - non-packaging POLYSTIRENES - packaging - non-packaging HALOGENATED POLYMERS - packaging - non-packaging PET - packaging - non-packaging OTHERS - packaging - non-packaging			
TEXTILES - packaging - non-packaging			
FERRO - packaging - non-packaging			
NON-FERRO - packaging - non-packaging			
WOOD - packaging - non-packaging			
LEATHER			
RUBBER			
STONE			
CARPETS			
ORGANICS			
OTHERS			
<b>SUB TOTAL PACKAGING</b>			
<b>SUB TOTAL NON-PACKAGING</b>			
<b>TOTAL</b>			

FORMAT 3

Annex III - b

CONCEPT: PACKAGING WASTE MANAGEMENT  
 UNITS: 1.000 Ton

COUNTRY:  
 YEAR:

HOUSEHOLD LEVEL									
COMPONENTS	OUTPUT	COLLECTION		TREATMENT					
		BULK	SELECTIVE	RECOVERY				FINAL DISPOSAL	
				RECYCLING	ENERGY CONV	COMPOSTING	OTHER	INCINERATION	LANDFILL
GLASS									
Packaging									
Non Packaging									
PAPER & CARDBRD.									
Packaging									
Non Packaging									
PLASTIC:									
Packaging									
Non Packaging									
TEXTILES									
Packaging									
Non Packaging									
FERRO									
Packaging									
Non Packaging									
NON-FERRO									
Packaging									
Non Packaging									
WOOD									
Packaging									
Non Packaging									
LEATHER									
RUBBER									
STONE									
CARPETS									
ORGANIC									
OTHER									
TOTAL									

OTHER LEVELS (Industry, offices, services, etc ...)									
COMPONENTS	OUTPUT	COLLECTION		TREATMENT					
		BULK	SELECTIVE	RECOVERY				FINAL DISPOSAL	
				RECYCLING	ENERGY CONV	COMPOSTING	OTHER	INCINERATION	LANDFILL
GLASS Packaging Non Packaging									
PAPER & CARDBRD. Packaging Non Packaging									
PLASTIC Packaging Non Packaging									
TEXTILES Packaging Non Packaging									
FERRO Packaging Non Packaging									
NON-FERRO Packaging Non Packaging									
WOOD Packaging Non Packaging									
LEATHER									
RUBBER									
STONE									
CARPETS									
ORGANIC									
OTHER									
TOTAL									

FORMAT 4: CONSUMPTION BASED PRIMARY PACKAGING DATA

PRODUCT FAMILIES TO BE RECORDED

- BISCUITS AND CAKES
- FATS (OTHER THAN MILK FATS)
- CHOCOLATE AND SUGAR CONFECTIONARY
- DAIRY PRODUCTS
- DRY BEVERAGES
- FROZEN FOODS
- HEAT PROCESSED FOODS
- JAM AND PRESERVES
- SAUCES
- SNACK FOODS
- FRESH BREAD
- FRESH FISH
- FRESH FRUIT AND VEGETABLES
- FRESH MEAT
- BEER AND CIDER
- CARBONATED SOFT DRINKS
- FRUIT JUICES
- MINERAL WATER AND STILL DRINKS
- WINES AND SPIRITS
- AUTOMOTIVE PRODUCTS
- CIGARETTES AND TOBACCO
- CLEANING MATERIAL
- COSMETICS
- HAIRCARE
- PAINTS, STAINS AND VARNISHES
- PET FOODS
- PHARMACEUTICALS
- SOAPS AND DETERGENTS
- TOILETRIES
- TOYS
- ELECTRICAL APPLIANCES
- ELECTRONICS
- CLOTHING
- OTHERS

2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028	2029	2030	2031	2032	2033	2034	2035	2036	2037	2038	2039	2040	2041	2042	2043	2044	2045	2046	2047	2048	2049	2050	2051	2052	2053	2054	2055	2056	2057	2058	2059	2060	2061	2062	2063	2064	2065	2066	2067	2068	2069	2070	2071	2072	2073	2074	2075	2076	2077	2078	2079	2080	2081	2082	2083	2084	2085	2086	2087	2088	2089	2090	2091	2092	2093	2094	2095	2096	2097	2098	2099	2100	2101	2102	2103	2104	2105	2106	2107	2108	2109	2110	2111	2112	2113	2114	2115	2116	2117	2118	2119	2120	2121	2122	2123	2124	2125	2126	2127	2128	2129	2130	2131	2132	2133	2134	2135	2136	2137	2138	2139	2140	2141	2142	2143	2144	2145	2146	2147	2148	2149	2150	2151	2152	2153	2154	2155	2156	2157	2158	2159	2160	2161	2162	2163	2164	2165	2166	2167	2168	2169	2170	2171	2172	2173	2174	2175	2176	2177	2178	2179	2180	2181	2182	2183	2184	2185	2186	2187	2188	2189	2190	2191	2192	2193	2194	2195	2196	2197	2198	2199	2200	2201	2202	2203	2204	2205	2206	2207	2208	2209	2210	2211	2212	2213	2214	2215	2216	2217	2218	2219	2220	2221	2222	2223	2224	2225	2226	2227	2228	2229	2230	2231	2232	2233	2234	2235	2236	2237	2238	2239	2240	2241	2242	2243	2244	2245	2246	2247	2248	2249	2250	2251	2252	2253	2254	2255	2256	2257	2258	2259	2260	2261	2262	2263	2264	2265	2266	2267	2268	2269	2270	2271	2272	2273	2274	2275	2276	2277	2278	2279	2280	2281	2282	2283	2284	2285	2286	2287	2288	2289	2290	2291	2292	2293	2294	2295	2296	2297	2298	2299	2300	2301	2302	2303	2304	2305	2306	2307	2308	2309	2310	2311	2312	2313	2314	2315	2316	2317	2318	2319	2320	2321	2322	2323	2324	2325	2326	2327	2328	2329	2330	2331	2332	2333	2334	2335	2336	2337	2338	2339	2340	2341	2342	2343	2344	2345	2346	2347	2348	2349	2350	2351	2352	2353	2354	2355	2356	2357	2358	2359	2360	2361	2362	2363	2364	2365	2366	2367	2368	2369	2370	2371	2372	2373	2374	2375	2376	2377	2378	2379	2380	2381	2382	2383	2384	2385	2386	2387	2388	2389	2390	2391	2392	2393	2394	2395	2396	2397	2398	2399	2400	2401	2402	2403	2404	2405	2406	2407	2408	2409	2410	2411	2412	2413	2414	2415	2416	2417	2418	2419	2420	2421	2422	2423	2424	2425	2426	2427	2428	2429	2430	2431	2432	2433	2434	2435	2436	2437	2438	2439	2440	2441	2442	2443	2444	2445	2446	2447	2448	2449	2450	2451	2452	2453	2454	2455	2456	2457	2458	2459	2460	2461	2462	2463	2464	2465	2466	2467	2468	2469	2470	2471	2472	2473	2474	2475	2476	2477	2478	2479	2480	2481	2482	2483	2484	2485	2486	2487	2488	2489	2490	2491	2492	2493	2494	2495	2496	2497	2498	2499	2500	2501	2502	2503	2504	2505	2506	2507	2508	2509	2510	2511	2512	2513	2514	2515	2516	2517	2518	2519	2520	2521	2522	2523	2524	2525	2526	2527	2528	2529	2530	2531	2532	2533	2534	2535	2536	2537	2538	2539	2540	2541	2542	2543	2544	2545	2546	2547	2548	2549	2550	2551	2552	2553	2554	2555	2556	2557	2558	2559	2560	2561	2562	2563	2564	2565	2566	2567	2568	2569	2570	2571	2572	2573	2574	2575	2576	2577	2578	2579	2580	2581	2582	2583	2584	2585	2586	2587	2588	2589	2590	2591	2592	2593	2594	2595	2596	2597	2598	2599	2600	2601	2602	2603	2604	2605	2606	2607	2608	2609	2610	2611	2612	2613	2614	2615	2616	2617	2618	2619	2620	2621	2622	2623	2624	2625	2626	2627	2628	2629	2630	2631	2632	2633	2634	2635	2636	2637	2638	2639	2640	2641	2642	2643	2644	2645	2646	2647	2648	2649	2650	2651	2652	2653	2654	2655	2656	2657	2658	2659	2660	2661	2662	2663	2664	2665	2666	2667	2668	2669	2670	2671	2672	2673	2674	2675	2676	2677	2678	2679	2680	2681	2682	2683	2684	2685	2686	2687	2688	2689	2690	2691	2692	2693	2694	2695	2696	2697	2698	2699	2700	2701	2702	2703	2704	2705	2706	2707	2708	2709	2710	2711	2712	2713	2714	2715	2716	2717	2718	2719	2720	2721	2722	2723	2724	2725	2726	2727	2728	2729	2730	2731	2732	2733	2734	2735	2736	2737	2738	2739	2740	2741	2742	2743	2744	2745	2746	2747	2748	2749	2750	2751	2752	2753	2754	2755	2756	2757	2758	2759	2760	2761	2762	2763	2764	2765	2766	2767	2768	2769	2770	2771	2772	2773	2774	2775	2776	2777	2778	2779	2780	2781	2782	2783	2784	2785	2786	2787	2788	2789	2790	2791	2792	2793	2794	2795	2796	2797	2798	2799	2800	2801	2802	2803	2804	2805	2806	2807	2808	2809	2810	2811	2812	2813	2814	2815	2816	2817	2818	2819	2820	2821	2822	2823	2824	2825	2826	2827	2828	2829	2830	2831	2832	2833	2834	2835	2836	2837	2838	2839	2840	2841	2842	2843	2844	2845	2846	2847	2848	2849	2850	2851	2852	2853	2854	2855	2856	2857	2858	2859	2860	2861	2862	2863	2864	2865	2866	2867	2868	2869	2870	2871	2872	2873	2874	2875	2876	2877	2878	2879	2880	2881	2882	2883	2884	2885	2886	2887	2888	2889	2890	2891	2892	2893	2894	2895	2896	2897	2898	2899	2900	2901	2902	2903	2904	2905	2906	2907	2908	2909	2910	2911	2912	2913	2914	2915	2916	2917	2918	2919	2920	2921	2922	2923	2924	2925	2926	2927	2928	2929	2930	2931	2932	2933	2934	2935	2936	2937	2938	2939	2940	2941	2942	2943	2944	2945	2946	2947	2948	2949	2950	2951	2952	2953	2954	2955	2956	2957	2958	2959	2960	2961	2962	2963	2964	2965	2966	2967	2968	2969	2970	2971	2972	2973	2974	2975	2976	2977	2978	2979	2980	2981	2982	2983	2984	2985	2986	2987	2988	2989	2990	2991	2992	2993	2994	2995	2996	2997	2998	2999	3000
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FORMAT 4

Annex III - d1

CONCEPT: CONSUMPTION BASED PRIMARY PACKAGING DATA  
UNITS: Pieces, grams, tons

COUNTRY:  
YEAR:

PRODUCT FAMILIES	* 1000 pieces	average weight per piece (gram)	total (ton)	number of rotations/ life span (x)	total (ton)

1  
2  
3

TOTAL DRINK MARKET	*1000 pieces	average weight per piece (gram)	total (ton)	number of rotations /life span (x)	total, (ton)
April - May 1991					
total drink market N-A	196070.25				
total glass N-A	36689.50				
non-returnable glass N-A	8275.20				
non-returnable glass 0.20-0.25L N	5404.60	140	756.64		756.64
non-returnable glass 0.33L N-A	89.70	220	19.73		19.73
non-returnable glass 0.50-0.75L N	782.30				
non-returnable glass 1L and more	1998.60	480	959.33		959.33
returnable glass N-A	28414.30				
returnable glass 0.20-0.25L N-A	8859.40	235	2081.96	18/X1	2081.91/X1
returnable glass 0.50-0.75L N-A	1544.70				
returnable glass 1L and more N-A	18010.20	750	13507.65	18/X2	13507/X2
plastic N-A	99702.00				
metal N-A	28571.90				
cardboard N-A	31106.90				
cardboard 0.20L N-A	18270.70				
cardboard 0.50L N-A	171.90				
cardboard 1L and more N-A	12664.30				
total drink market A	181929.08				
total glass A	175921.50				
non-returnable glass A	32773.10				
non-returnable glass 0.20-0.25L A	23928.30	130	3110.68		3110.68
non-returnable glass 0.33L A	471.40	155	73.07		73.07
non-returnable glass 0.50L A	93.70	225	21.08		21.08
non-returnable glass 0.70-0.75L A	7052.10	570	4019.70		4019.70
non-returnable glass 1L A	901.90	500	450.95		450.95
non-returnable glass more than 1L	325.70				
returnable glass A	143148.38				
returnable glass 0.20-0.25L A	124955.75	265	33113.27	35/X3	33113.27/X3
returnable glass 0.33L A	16452.70	265	4359.97	35/X4	4359.97/X4
returnable glass 0.50L A	0.10	365	0.04		0.04
returnable glass 0.70-0.75L A	1732.10	640	1108.54	18/X5	1108.54/X5
returnable glass 1L A	0.00	720	0.00		0.00
returnable glass more than 1L A	7.70				
metal A	6007.60				
metal 0.25L A	93.80				
metal 0.33L A	5678.80				
metal 0.50L A	233.00				
metal 1L A	1.60				
metal more than 1L A	0.40				



FORMAT 4

CONSUMER BASED PRIMARY PACKAGING DATA - EXPLANATORY NOTE

The number of pieces per product on the market of the Member States can be obtained from specialized market research companies such as NIELSEN, GFK and others.

The number of pieces sold, multiplied by the average weight of the packaging will give the tonnage of waste each item is likely to generate at household level.

The tonnage of returnable, refillable packaging has to be divided by the number of years equal to the life-span of the product.

FORMAT 5

Annex III - e

CONCEPT: INDUSTRIAL PACKAGING  
 UNITS: Pieces, grams, Kg

COUNTRY:  
 YEAR:

types	pieces	average weight per piece	total weight	number of rotations lifespan (x)	total
<u>Intermediate bulk containers (IBC)</u> woven PP octobins (cardboard) HDPE metal others					
<u>Drums</u> metal plastic					
<u>Jerry cans</u> metal plastics					
<u>Boxes</u> cardboard wood + plywood					
<u>Bags</u> paper plastic woven					
<u>Others</u>					
TOTAL					

FORMAT 6

Annex III - f

CONCEPT: Secondary and Tertiary packaging  
UNITS: Average weight in grams or Kg

COUNTRY:  
YEAR:

	CARTON	PLASTIC	WOOD	OTHERS
TRAYS 6 12 24				
CRATES 6 12 24				
BOXES 24				
WRAPPINGS Stretch Shrink				
PALETS 120-80 120-120				

Note: reusables are to be divided by the number of years equal to the life span in the same way as indicated for primary packaging.

FINANCIAL STATEMENT

SECTION 1: FINANCIAL IMPLICATIONS

**1. Title of operation**

Draft proposal for a Council Directive on packaging and packaging waste

**2. Budget headings involved**

A1 and A2: Expenditure relating to persons working with the institution

A2510: Expenditure on meetings of committees whose consultation is compulsory in the procedure for drafting Community legislation: Committee for adaptation to technical progress.

A2500: Meetings in general: Group of experts on waste management and recycling

B4-3040: Environment legislation (operations support expenditure).

**3. Legal basis**

Article 100a of the Treaty: High level of protection for the environment and approximation of national measures.

**4. Description of operation**

**4.1 Specific objectives of operation**

To reduce the impact of packaging and packaging waste on the environment and to approximate the measures undertaken by the Member States in order to contribute to completion of the internal market.

To set up systems for the return of used packaging and packaging waste.

To set up the infrastructure required for reuse and recovery.

To attain ambitious targets for recovery and minimization of final disposal of packaging waste.

To use a harmonized marking system.

To establish national data bases.

To draw up waste management plans for packaging.

To ensure conformity with the essential requirements.

#### **4.2 Duration**

Ad hoc measure.

#### **4.3 Target population**

The entire population of the Community.

### **5. Classification of expenditure or revenue**

#### **5.1 Compulsory/non-compulsory**

Non-compulsory.

#### **5.2 Differentiated/non-differentiated**

Differentiated (heading B4-3040) and non-differentiated (other budget headings).

### **6. Type of expenditure or revenue**

In addition to the administrative expenditure for management of the Directive, expenditure will be incurred on:

- preliminary studies on the marking system (Article 7), the life cycle analysis (Articles 4 and 13), the data bases (Article 9) and the return and management systems (Article 6) etc. to enable the Commission to propose more specific measures on packaging waste;
- also, the Directive lays down the essential requirements for packaging. If necessary, the Commission will refer these requirements to the bodies responsible for drafting standards. In this case, additional expenditure will be incurred on financial support from the Commission to the standardization body (CEN). The framework contract signed on 10 October 1985 includes a mandate for this standardization (harmonization) and provides for such financial support from the Commission.

**7. Financial impact on appropriations for operations (Part B of the budget)**

**7.1 Method of calculating total cost of operation**

Studies: approximately two studies per year. Each study will require an estimated budget of ECU 150 000. The studies will be carried out by consultants specializing in this field and selected after a call for tenders. Consequently, the estimated maximum expenditure could be ECU 300 000 per year starting in 1993 (budget heading B4-3040).

Based on experience with past standardization mandates, the average cost to the Commission of the financial support for the European Committee for Standardization (CEN) is ECU 50 000 per new standard. However, it is difficult to estimate the number of standards to be drafted if this approach is taken. Nevertheless, it can be assumed that not more than four CEN standards per year will be drafted. Consequently, the estimated cost will be around ECU 200 000 per year starting in 1993 (budget heading B4-3040).

Funding for the studies planned could be requested from the corresponding heading or headings in Part A of the budget, depending on the decision taken by the Commission on the form of the preliminary draft budget for 1993.

**7.2 Proportion of mini-budget in total cost of operation. Explain method of calculation.**

Not applicable.

**7.3 Indicative schedule of commitment and payment appropriations**

Not applicable.

**8. What anti-fraud measures are planned in the proposal for the operation?**

The contracts between the Commission and the parties involved in these measures include clauses on anti-fraud measures, controls, audits, where appropriate, and the contractors' obligations.

SECTION 2: ADMINISTRATIVE EXPENDITURE

1. Will the proposed operation involve an increase in the number of Commission staff? If so, how many?

The measure proposed will require one grade A official and one grade B official.

2. Indicate the amount of staff and administrative expenditure involved in the proposed operation. Explain the method of calculation.

2.1 Staff expenditure

Titles A1 and A2: Two officials at ECU 85 000 per year or total expenditure of ECU 170 000 per year starting in 1993.

2.2 Other expenditure

- Budget heading A 2510 (Group 4, Committee for adaptation to technical progress): Two meetings per year are planned at an average cost of ECU 482.73 per participant, with two experts from each Member State. This gives total expenditure of ECU 23 171 per year ( $482.73 \times 24 \times 2$ ) starting in 1993.
- Budget heading A 250 (Group of experts from the Member States): Two meetings per year are planned at an average cost of ECU 482.73 per participant, with two experts from each Member State. This gives total expenditure of ECU 23 171 per year ( $482.73 \times 24 \times 2$ ) starting in 1993.

### SECTION 3: ELEMENTS OF COST-EFFECTIVENESS ANALYSIS

1. The measure proposed aims at:

- ensuring a high level of protection for the environment;
- approximating the national measures taken and removing barriers to trade and distortion and restriction of competition within the Community.

Until recently, the environmental regulations in most countries covered only packaging for liquids for human consumption. Although this category of packaging remains one of the major causes of concern, today all other forms of packaging are also causing problems. The basic explanation for this change lies in the worldwide solid waste disposal crisis, which has turned packaging waste into one of the waste streams which must be given priority.

Since the disparities between the national measures taken have created, and could continue to create, barriers to the free movement of goods within the Community, there is a clear need for the Directive to pursue the twin objectives stated above.

2. This is an ad hoc measure. The action proposed was provided for in and fits in with:

- the Community strategy for waste management (Commission communication to the Council of September 1989);
- the Council Resolution of 7 May 1990;
- DG XI's 1992 mission statement.

3. Action must be taken. This is an obligation under the Treaty for which there is no alternative solution.

One other option would be to set Community targets to be met by means of voluntary agreements at Community level. First this would require a framework regulation. Then its success would depend on the good will of traders and industry. This option would considerably increase the workload for the Commission departments concerned and, hence, the cost to the Community budget.

4. The measure will be assessed and monitored with the aid of the information system to be set up by the Member States, combined with the obligation placed on the Member States to notify the Commission of all draft laws and to report on the measures taken to implement the Directive. An annual review will be conducted.



The following performance indicators have been incorporated in the proposal:

- proportion of packaging waste removed from the waste stream for return: 100%
- proportion by weight of packaging waste removed from the waste stream for recovery: 60%/90%
- proportion by weight of packaging waste removed from the waste stream for recycling: 40%/60%
- proportion of packaging waste in municipal waste
- proportion of packaging waste in other waste streams
- breakdown of the packaging market between reusable and non-reusable packaging
- proportion of waste generated by reusable packaging in total packaging waste
- proportion of waste generated by non-reusable packaging in total packaging waste

**IMPACT ASSESSMENT FORM**  
**THE IMPACT OF THE PROPOSAL ON BUSINESS**  
**with special reference to small and medium sized**  
**enterprises (SMEs)**

**Title of proposal:** Draft of a proposal for a Council Directive on Packaging and Packaging Waste

**Reference Number:**

**The proposal**

1. Taking account of the principle of subsidiarity, why is Community legislation necessary in this area and what are its main aims?

The estimated amount of packaging waste produced in the Community is 50 million tons of which only about 9 million tons, an average of 18%, are recycled with widely varying levels between Member States and for the different materials. Whilst there exists a crisis in the Community's capacity to dispose of solid waste, packaging waste contributes in a great proportion to the increase in the volume of wastes and to the saturation of landfills (eg the share of packaging waste in domestic waste is 25-35% by weight). A lasting solution to the waste disposal crisis relies on clearly articulated waste management plans which recognize waste reduction, recovery and in particular recycling as top priorities. The Commission has not yet addressed the overall problem of packaging and packaging waste. Until now, the Community has dealt with the subject of packaging in Council Directive 85/339/EEC of 27 June 1985 on containers of liquids for human consumption. The implementation of this Directive has been disappointing and Member States have adopted a variety of different approaches. Those differences have been and continue to be, at the root of obstacles to the free movement of goods within the Community.

While in many countries, the emphasis on liquid food containers has not been entirely replaced, consideration is now moving to all packaging. Again, the principal reason for this shift is the presence of a worldwide solid waste disposal crisis, which has triggered in many countries the identification of packaging as a priority waste stream for action. Different Member States have already developed action on packaging and packaging waste in general, which might result in a multiplication of problems, the lack of harmonisation giving rise to interference with the free marketing of goods in the Community.

Thus the aims of the proposal are to ensure a high level of protection of the environment and to approximate national provisions in the field of packaging waste and consequently in the field of packaging in order to contribute to the completion of the internal market and to avoid obstacles to trade and distortion and restriction of competition within the Community.

## The impact on business

### 2. Who will be affected by the proposal?

#### - Which sectors of business?

Considering the functions played by packaging and the close link between the packaging and the packed product, it is obvious that all sectors will be affected: packaging raw material suppliers; packaging manufacturers, convertors, transformers; packers and fillers (all industrial sectors producing goods to be packed); services (eg transport); trade; waste management operators (collection and treatment). Evidently too, new techniques will be inaugurated in transportation and recycling.

#### - Which sizes of business? Geographical concentration?

Raw material suppliers are generally multinationals and geographically concentrated as to production plants. Paper pulp is provided by Scandinavian countries (80%) and North America (20%). Plastic raw material multinationals are concentrated in the U.S.A. (oil producers), Scandinavia and industrialized European countries.

Semi-finished materials (eg paper bobbins) are in the hands of multinationals and many SME businesses. The final stage is mostly dominated by the latter. For instance: branch structure 1990 of the plastic converting sector for the total EC Market:

82.8% of the companies: < 100 employees  
14.8% of the companies: < 500 employees  
2.4% of the companies: > 500 employees

Packers, fillers, services and trade: from the smallest sized firms to multinational enterprises.

Waste management (collection and treatment): many small firms exist although it has to be mentioned that this situation has been changing for a number of years because a lot of SMEs have been taken over by bigger ones. In many cases waste management activities are managed by public organisations.

One can say that beyond raw material suppliers all other sectors are well and equally represented in each Member State and that there is no concentration in any particular geographical areas.

### 3. What will business have to do to comply with the proposal?

The Directive is addressed to the Member States. Business will have to abide by the national legislation which will bring this Directive into force. The Directive stipulates that the implementation of measures shall be realized within a spirit of joint responsibility between economic operators, competent authorities and consumers.

In general, the response expected from the Packaging Industry and Trade can be summarized as follows:

- designers and manufacturers of packaging will be expected in the future to play major rôles in the conservation of the environment and the prevention of waste
- they will be expected to reduce demands on natural resources and volume of their products but also to design for long product life in some cases and for clean performance during a product's life cycle and final disposal
- they will be expected to design and use only packaging which is suitable for reuse and/or recovery
- they will be expected to take their responsibility to bring products at the end of their useful life back into the economic cycle.

In particular, trade and industry will have to take responsibility for the following areas:

- collaborate with public authorities or take the entire responsibility themselves for the setting up of systems guaranteeing the return of used packagings in order to channel it to a reuse or recovery activity
- assure the reusability and/or recoverability in theory and practice of each packaging placed on the market
- find solutions and develop appropriate substitutes for packaging systems and/or materials not being in conformity with the provisions of the Directive
- indicate on each packaging, by means of the proposed harmonized marking system of the Directive, whether the packaging is reusable or recoverable (in case of one-way packaging)
- assure that packaging placed on the market complies with a number of essential requirements (in particular in the field of presence of toxic heavy metals)
- if necessary, inform the competent authorities of the consumption data on packaging, in order to enable the Member States to gather, and make available all the data required by the Directive. Many of the sectors concerned already have the required data and specialized market research offices elaborate and possess such data too. However the availability of the data will vary greatly between Member States and be less comprehensive for the SME sector particularly in commerce. This data requirement is unlikely to add significantly to the costs for individual enterprises as long as Member States take account of the potential burden for SMEs.

Finally it can be said that changes will occur in different domains. In general the Directive will cause an effect in favour of environmental awareness. Many companies are already revising their organizational schemes, shifting the main drive from marketing to integral quality activities and minimal but efficient use of packaging materials and introducing other circuits for discarded materials.

**4. What economic effects is the proposal likely to have?**

- It is expected that the employment on non-qualified labour will be favoured by the creation of return systems, sorting centres and recycling units. A rough estimate foresees 80 non-qualified labourers per 1 million inhabitants.
- On the basis of the need of sorting centres one can estimate investment to be huge; per 1 million inhabitants about 10 000 000 Ecu. Investment in specialized trucks, bins and other collecting devices will also be important. However, all these figures are to be compared with investment costs which will always take place, even if no changes in waste policy take place.
- There will also be marking and labelling costs.

**5. Does the proposal contain measures to take account of the specific situation of small and medium sized firms (reduced or different requirements etc)?**

As the subject of the proposal is all packaging and packaging waste it affects all economic sectors; it is very difficult to make special provisions for SMEs. However the Directive does in a number of areas, eg Article 8, require that Member States should seek to minimize the burdens and costs for SMEs. More precisely the criteria guiding the national measures shall be dictated by the obligation to adopt those which, while having the same effects, minimize the possible problems for operators. Specific reference is made to SMEs in the considerations.

Due to the fact that this directive provides for a series of harmonized measures at Community level, SMEs can count upon a stable reference framework that will protect them from arbitrary changes in packaging sizes, characteristics or marking systems imposed by national or sectoral policies.

**Consultation**

**6. List the organisations which have been consulted about the proposal and outline their main views.**

Considering the complexity of the problem and the inextricability of the network of European associations concerned, it was impossible to invite all associations concerned or take part in the consultation procedure organised by the Commission services. It must be taken into consideration that the study carried out by the Commission services as well as the proposals that formed the basis of discussions cover the widest possible area.

The Commission services approached several umbrella associations (UNICE, CECD, FEWITA, GEDIS) with the intention of creating a discussion platform at Community level which would guarantee the representation of all levels and all sectors concerned by a group of interlocutors.

Commerce and Industry at Community level finally organised themselves into "The packaged consumer goods, Industries Coordination Group" and "The Ad Hoc Packaging Legislation Group". Three rounds of consultation between these groups and the Commission services took place between April and November 1991. Following these consultations, European Trade and Industry submitted a common position paper. The latter was not signed by the Packaging Glass Industry who submitted their own position paper. Both documents are enclosed. Their main concerns were the stand-still principle and the five year period for the intermediate targets. These no longer feature in the Directive although there is still some concern about the 60% recycling target for each material, particularly from the plastic and paper industry. The glass industry on the contrary insists on recycling targets for each material. Trade and Industry have also asked that the Directive makes provision for possible exemptions for specific categories of packaging, eg. small packaging, packaging for pharmaceuticals etc.

It must be said that in no way can it be the aim to exempt small packaging (a lot of little makes a lot). However, special provisions for certain types of packaging might be justifiable and consequently this is proposed as an issue for the Technical Committee under article 17.

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