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**GREEN PAPER ON INTEGRATED PRODUCT POLICY**

(presented by the Commission)

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## 1. INTRODUCTION

Products are fundamental to the wealth of our society and the quality of life we all enjoy. Rising consumption of products is however, directly or indirectly, also at the origin of most of the pollution and depletion of resources our society causes. The challenge we face is to achieve an equitable development for all human beings, including future generations, while preserving the integrity of the global environment, as called for in the 1992 Rio Declaration on Environment and Development. One way to do so is to aim at a **new growth paradigm and a higher quality of life through wealth creation and competitiveness on the basis of greener products**. Products of the future shall use less resources, have lower impacts and risks to the environment and prevent waste generation already at the conception stage.

This Green Paper proposes a strategy to **strengthen and refocus product-related environmental policies** to promote the development of a market for greener products. The ideas put forward are intended to **stimulate public discussion** on the proposed strategy and its elements, the prospects opened up for stakeholders and government in the greening of products, and on the practical means for implementing and promoting it.

The strategy is based on the Integrated Product Policy approach and intends to complement existing environmental policies by **using so far untapped potential to improve a broad range of products and services throughout their life cycle** from the mining of raw materials to production, distribution, use, and waste management. Its central element is the question how the development of greener products and their uptake by consumers can be achieved most efficiently. Hence, there is no single preferred instrument of IPP. Rather, there will be a **mix of instruments** which needs to be carefully used and fine-tuned to ensure a maximum effect.

The challenges of making products more environmentally friendly have to be taken up first and foremost by **businesses and consumers** as the main decisions on the environmental impacts of products are taken at the design table and in the shops. Once a product is put on the market, there is relatively little that can be done to improve its environmental characteristics. Equally, all design efforts will be in vain if consumers do not buy greener products or use them in an environmentally friendly way. Therefore, the Integrated Product Policy approach will primarily focus on **eco-design** of products and the creation of **information and incentives** for an efficient take-up and use of greener products.

The Integrated Product Policy approach and its focus on the life cycle of products combined with a strong stakeholder co-operation to identify eco-efficient solutions both for the environment and business development will be a major innovative element of the **6<sup>th</sup> Environment Action Programme**. Through using the synergies of environmental improvement and business development it can also contribute to the goals of the Sustainable Development Strategy currently being prepared by the European Commission for the **Gothenburg Summit**.

### *Why a Community IPP approach?*

Most **products are traded on a global or regional scale** and circulate freely within the Internal Market. Therefore, it makes sense to develop a product-related environmental policy not only on a small scale for locally established companies but for all businesses operating and trading within the Community. A Community IPP can only be successful if it takes up and integrates the **experience gained from local and national initiatives** and extends this to general business and government practice.

A Community Integrated Product Policy will therefore be both a **framework** for Member States, local authorities, businesses and NGOs to develop their ideas and spread positive experiences on the greening of products and a **driving force** through specific Community policy initiatives where such initiatives are most promising. This will require that the different levels of action, the Community, national, regional and local levels as well as government and business-led initiatives work hand in hand to ensure that a maximum effect of initiatives can be achieved.

#### **Box 1: The steps towards a Community IPP so far.**

In 1997, the Commission undertook a study on the development of the IPP approach in Member States and the use of the product life cycle concept by industry and consumers. A stakeholder workshop was organised at end-1998. An updating study on developments in Member States was done in 2000. (Details in Annex I).

Under the German Presidency, in May 1999, Environment Ministers discussed IPP at the Informal Council in Weimar. In Presidency conclusions<sup>1</sup>, 'it was agreed that, in seeking to achieve sustainable development in Europe, increasing importance attaches to the impacts on the environment associated with the pre production process, manufacture, distribution, use and disposal of products. [...] Environmental policy [...] must concentrate more on developing and implementing an integrated approach that deals with the entire lifecycle of products. [...] It was emphasised that efforts to develop environmentally friendly products and improve the conditions for the success of such products on the European market would also help to strengthen the competitiveness of European industries. From this perspective, and in view of the necessity of harmonising as far as possible the standards demanded of products and services within a single European market and a common currency area, the view was taken that a [...] environmental product policy was justified at Community level. [...] It was made clear that this new innovative policy approach does not necessarily lead to additional regulatory measures but is meant to be an intelligent integration of instruments and measures taking into account existing provisions. [...] The Ministers therefore welcomed the Commission's intention of submitting [...] a Green Paper containing proposals for the development of an integrated environmental product policy [...]'.

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<sup>1</sup> The President's conclusions on the results of the Informal Meeting of EU Environment Ministers in Weimar, May 7-9, 1999

## 2. THE INTEGRATED PRODUCT POLICY APPROACH

Integrated Product Policy is an approach which seeks to **reduce the life cycle environmental impacts of products** from the mining of raw materials to production, distribution, use, and waste management. The driving idea is that integration of environmental impacts at each stage of the life cycle of the product is essential and should be reflected in decisions of stakeholders.

IPP focuses on those decision points which strongly influence the life cycle environmental impacts of products and which offer potential for improvement, notably **eco-design** of products, **informed consumer choice**, the polluter pays principle in **product prices**. It also promotes instruments and tools which target the whole life cycle of products.

### *Integrated...*

This refers to consideration of the whole life cycle of products covering all stages from the mining of raw materials to the production, distribution, use, recycling and/or recovery and final disposal (compare box 2) as well as to a broad approach integrating various instruments to achieve the goal of greening of products on the basis of co-operation with stakeholders.

From a stakeholder perspective, if their decisions influence the environmental impact of products somewhere else in the product life cycle, upstream or downstream, they must be aware of and take responsibility for the consequences of their actions. From a policy perspective, policy initiatives focusing on particular life cycle stages must not merely shift environmental burdens to another stage. Life cycle thinking needs to be promoted throughout the economy, as part of all decisions on products along with other criteria such as functionality, health and safety.

### *...Product...*

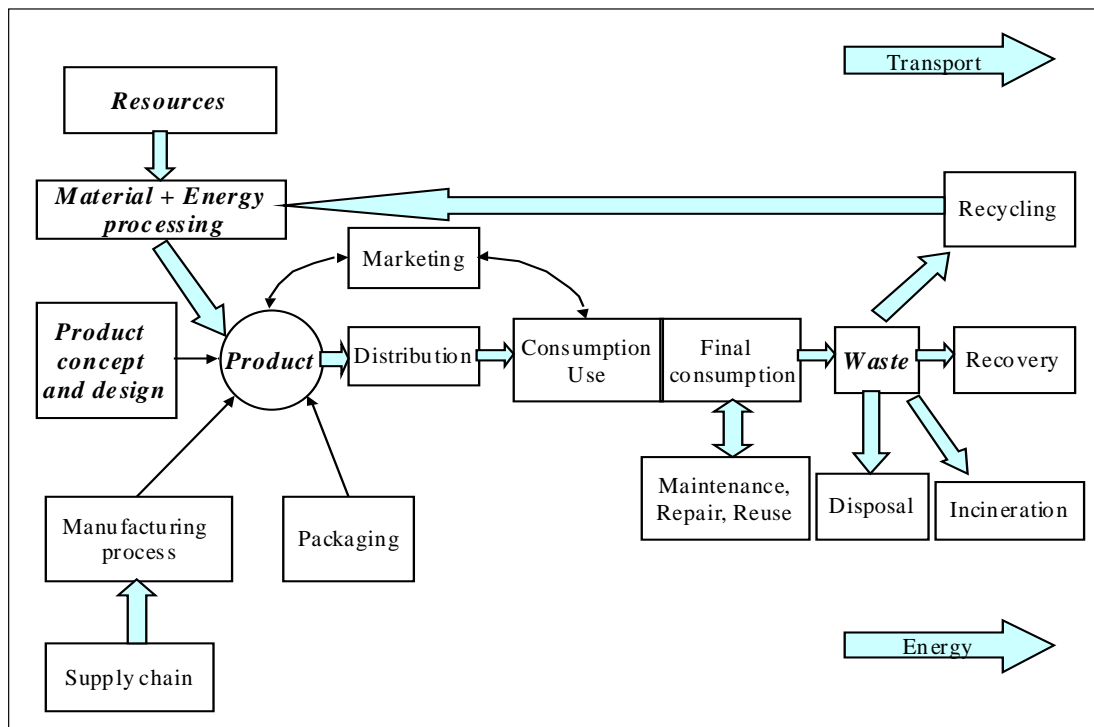
In principle, all products and services are included in the scope of this policy which is aimed at achieving an overall improvement of the environmental impacts of products. In practice, action might address all or only certain products, selected on the basis of discussions with stakeholders because of their importance and their scope for improvement. In so far as the IPP approach can usefully be applied to improve the environmental impact of services, this should not be excluded although services are not the primary focus of IPP. Nevertheless, services may play an important role in partly or entirely replacing products (e.g. car sharing; voice mail instead of answering machines; dematerialisation potential of the “new economy”).

### *...Policy*

The role of public authorities within the IPP approach shall be in most cases one of facilitation rather than direct intervention. The general idea is that policy should focus on setting the main objectives and providing the different stakeholders with the means and incentives to achieve these objectives. Depending on the context, the IPP approach may also be useful in finding business-oriented solutions of environmental problems in discussion and co-operation with stakeholders and/or the preparation of legislation.

Although legislation is not the primary focus of IPP, it should be part of a mix of instruments to be used, if appropriate. This may concern e.g. the legal framework for voluntary action such as eco-label; New Approach legislation; legislation if voluntary approaches do not deliver the envisaged results and legal security is needed to avoid distortion of competition; and the integration of a more holistic and life-cycle oriented approach into other types of legislation.

**Box 2: Schematic life cycle of a product**



### 3. THE ROLE OF STAKEHOLDERS AND LOCAL INITIATIVES

In order to be able to deal with the very broad scope of potential measures to support the greening of products, the strategy relies on the **strong involvement of all stakeholders on all potential levels of action**. An open dialogue and the creation of incentives to apply a general life cycle thinking in relevant decisions are the main fundamentals upon which an Integrated Product Policy approach should build.

**Consumers** will benefit through more information and a higher transparency as regards environmental characteristics of products. Better and more reliable information in an easier understandable form will allow consumers to make informed choices in favour of environmentally friendly products. Greener products and services should offer a higher quality, a longer life and - if environmental impacts are correctly reflected in product prices - a lower overall cost to the consumer.

**Non-governmental organisations** will be given the opportunity to contribute as a partner to the identification of issues and the development of practical solutions towards reducing environmental impacts of products.

For **industry and retailers**, Integrated Product Policy offers the opportunity to bring in their experience to promote a business-oriented approach towards greener markets on the basis of innovation and economic growth. Businesses will be required to take an active role in bringing about solutions for the environment within companies and industry sectors as well as in co-operation with public administration and non-governmental organisations. Pro-active companies will both have the chance to lead a market transformation process and convert their experience into market opportunities. In particular for businesses operating across Member State borders and non-European companies, a Community framework offers greater consistence of the European market. Experiences gained on the European market may later be transferred to the global level, including developing countries. SMEs will profit from an easier access to information and tools how to reduce the environmental impacts of products. There will also be a special focus on the product chain as a support for SMEs to bring about environmental improvements.

As many examples show (compare box 3), environmental leadership and business development go hand in hand. To quote business associations, "Eco-efficiency does much more than lead a business to a point where environmental benefits balance costs. It is a leadership practice. It serves those leaders who want to stay ahead of the curve and look at the future needs of society, natural resource availability and public perceptions."<sup>2</sup> It is these practices which need systematically to be built upon and broadened to a more general co-operation within industry and between companies, non-governmental organisations and national and local authorities in order to make this way of thinking the norm.

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<sup>2</sup> WBCSD/EPE Memorandum on EEEI to Prodi Group, May 2000

**Box 3: Greening of products as a business practice<sup>3</sup>:**

*Electrolux, a major producer of household electrical appliances has developed a system of Environmental Performance Indicators to monitor progress in eco-design of their products. Inter alia, they identified a top group of products with respect to environmental characteristics which they called “Green Range”. In 1996, sales in the Green Range accounted for 5% of total sales and 8% of gross margins. In 1998 these figures already reached 16% and 24% respectively.*

*The 3M Company adopted a Pollution Prevention Pays Programme which in the period 1975-96 prevented 750 000 tons of pollutants and saved € 920 million. During the same period, the company achieved an energy efficiency improvement of 58% per unit of production or per square meter of office and warehouse space in its operations in the United States. In 1996, the company announced a breakthrough in the process for making medical adhesive tapes that reduces energy consumption by 77%, cuts solvent use by 1.1 million kg, lowers manufacturing costs and cuts manufacturing cycle time by 25%.*

*Rank Xerox developed technology to make remanufactured copiers, for which demand now outstrips supply by about 50%. Of the 80 000 copiers recovered per year, 75% are remanufactured and the rest are taken apart for reuse or recycling. In 1995, asset recovery allowed Rank Xerox to avoid € 93 million of raw material and component purchases*

**Local initiatives** will be a major building block of a Community policy as they allow a practice-oriented bottom-up approach. These initiatives need to be linked among each other to allow an efficient communication to build upon practical experiences. Positive examples (compare box 4) that can be transferred to a larger scale shall be a major inspiration for the future development of a Community strategy.

IPP will put the challenge to **research and development** to provide new solutions to satisfy the needs of human beings with less resource use and environmental impacts. This will also imply research funding, inter alia within the 5<sup>th</sup> Research Framework Programme and beyond.

**Box 4: Coup 21. An example for an existing IPP initiative in co-operation between business and local government**

The city of Nuremberg in Germany initiated a network of pro-active companies called “Coup 21” which is supposed to develop steps to implement the goals of Agenda 21 on a local level<sup>4</sup>. This network also comprises a working group on Integrated Product Policy which has set itself the following objectives:

- Implementing pilot projects for selected industry sectors/companies
- Producing a sustainability guideline with a checklist on IPP focussing on retailing and consumers
- Developing marketing concepts for IPP products
- Collating policy proposals by companies.

<sup>3</sup> <http://www.wbcscd.ch/ee/EEMprofiles/index.htm>; JUSTUS, Debra (2000), “Green” Companies: Sustainable Development and Industry, report prepared for the OECD Directorate for Science, Technology and Industry, Paris: OECD; in: OECD, Background report for the business and industry policy forum on environmental management: challenges for industry. DSTI/IND(2000)10.

<sup>4</sup> For more information, see: <http://www.coup21.de>



#### 4. STRATEGY TO IMPLEMENT THE IPP APPROACH<sup>5</sup>

This chapter presents a strategy with the aim to promote a gradual increase in the environmental quality of goods and services in a life cycle perspective. This strategy has been put together with a view to a broad debate both on strategy itself and all its elements which are in no way fixed and may be changed as a result of the public debate. With a view to orient this debate, questions have been put at the end of each section. Comments are however, not bound, to respect this structure and may address any aspect with relevance to this Green Paper and the strategy to implement the IPP approach.

In the context of the proposed strategy, promotion of environmental quality of goods and services means **using market forces** to the largest possible extent. Indeed, given the size of the challenge and the multitude of stakeholders involved, the goal can only be envisaged and reached if the different actors recognise the potential in this approach and are committed to achieving it.

The success of a product-oriented environment policy therefore depends on its implementation strategy, on identifying and using the most relevant drivers and the corresponding instruments to ensure a continuous improvement of the environmental characteristics of products within the framework of the Internal Market.

As economic interests are a main driver, the instruments probably most effective are those, like taxes and subsidies, that help to “**get the prices right**”, to internalise external costs (Section 4.1). However, as long as this is not the case, supplementary action to better inform consumers on the environmental characteristics of products and to encourage producers to develop a better design of products is needed.

The most influential supplement in this respect should be “**green demand**” (Section 4.2). As far as firms are concerned, one can expect them to improve their environmental performance, including the environmental quality of their products, when it is in their commercial interest. Direct financial cost savings, the improvement of brand image, the perspective of new markets and higher market shares – these, plus eventually anticipation of regulatory measures, might be listed as main interests. Image and market share both stand for the influence the consumer can exercise, whether the consumer is in the private (section 4.2.1) or the public sector (section 4.2.2). Given the importance of the public sector, its purchasing activity is one of the most influential factors, allowing for the development of a significant “green market”. In order to “green” the demand side in general, information plays a crucial role.

The “greening” of demand, a change of consumer behaviour, can and must be supplemented by **supply side measures** (section 4.3). These cover instruments that encourage firms to apply a life cycle approach for their products. Standards and product directives (section 4.3.3) and support for product design (section 4.3.2) fall into this category, as does product information (section 4.3.1). Where a value added

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<sup>5</sup> An overview of the main actions envisaged in the strategy to implement the IPP approach can be found in Annex III.

can be created by bringing together the different stakeholders to elaborate business-oriented solutions towards specific problems such as environmental agreements, product panels on the basis of a variable format adapted to specific issues are proposed (section 4.3.4).

In addition, in order to help this strategy to be implemented, certain new or improved tools might be needed (section 4.4). It might be necessary, for example, to further develop and disseminate easily usable life cycle tools that allow a fast check of the environmental impacts of products, in particular for small and medium-sized enterprises. Tools for the management of life cycle environmental information flow along the product chain might also need further development. Other supportive instruments for the strategy are environmental management and audit systems (section 4.4.1) and accounting and reporting for the environment (section 4.4.4). This new policy approach should also be supported by a well-focused research and development policy which both supports innovation in the development of environmentally friendly products and services and gives a better understanding of the mechanisms which lead to the greening of products (sections 4.4.2 and 4.4.3).

***4. What is the overall view of stakeholders on the strategy and its elements?***

***Does the Green Paper adequately describe the Integrated Product Policy approach and the issues it is supposed to address?***

***Is the proposed overall strategy appropriate to effectively implement the Integrated Product Policy approach? What suggestions can be made to improve and supplement the overall strategy?***

***What are stakeholders views on the various elements of the strategy and how can they be improved?***

#### **4.1. The price mechanism**

The environmental performance of products can best be optimised by the market once all prices reflect the true environmental costs of products during their life cycle. However, this is not always the case and there are market failures (“external costs”), in other words, products and their users may profit from a “free lunch” by causing environmental impacts without paying for them. If producers reduce the environmental impacts of their products and consequently the environmental costs society has to bear as a whole, it only seems fair that they should profit from a preferential treatment as regards taxation, state aids etc.

The most powerful instrument to transform the market in favour of more environmentally friendly products and services is to **correct these market failures according to the polluter pays principle**<sup>6</sup> by ensuring that the true environmental cost during the life cycle of products is integrated into the product price.

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<sup>6</sup> Art. 174(2) of the Amsterdam Treaty

In order to provide an evaluation of these external costs, it is essential that objective criteria are established to assess the environmental performance of products. On the basis of these criteria, the Commission intends to investigate the main price elements which are not in conformity with the polluter pays principle and which prevent that the environmental efforts made by companies are properly rewarded in product prices. The associated external costs shall be quantified as far as possible. These investigations should assist in identifying the main stages of the life cycle of products, including transport, where external costs occur and in conceiving measures to better take into account these external costs in the price of new products and/or elements related to their use<sup>7</sup>.

Nevertheless, it will neither be straightforward to identify the true external costs of products and their inputs nor always easy to design broadly accepted policy options to implement the polluter pays principle. Therefore, it will be necessary to make simplifications in order to achieve the broader goal of effective and simple measures to correct market failures that can also be administrated. There are a number of possible actions which may form a cornerstone of an Integrated Product Policy and which are suggested as ideas for discussion: The main solution envisaged in this framework is *differentiated taxation* according to the environmental performance of products. A first step might e.g. be to apply *reduced VAT rates on products carrying the European eco-label*. Possibilities to do so will be investigated in the framework of the New VAT Strategy. This could be supplemented by the development and use of *other environmental taxes and charges, tradeable permits etc.* on all levels of government.<sup>8</sup> Clearly, these instruments need further evaluation and elaboration and may apply only in the medium to longer term. Care must be taken that such measures properly reflect differences in external costs linked to products and that they do not lead to artificial pricing structures that might hamper competition within the Internal Market.

The concept of **producer responsibility** relates to the integration of costs occurring once the product has been sold into the price of new products. This encourages prevention at the design stage and allows consumers to bring back end-of-life products free of charge. It has recently been integrated into the Directive on End-of-Life Vehicles<sup>9</sup> and the Commission Proposal for a Directive on Waste Electrical and Electronic Equipment<sup>10</sup>. This *concept should be extended to further areas of Community and Member State legislation* whenever the integration of environmental concerns into the product design can be usefully achieved in this way. Other ways of giving incentives to consumers to return end-of-life products such as *deposit-refund systems* could also be further investigated.

Within the framework of Community law, Member States should financially support the development of environmentally friendly products through **state aid**. Subsidies having the opposite effect should be reduced as far as possible. On 21 December 2000, the Commission has adopted the new Guidelines on State Aid for

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<sup>7</sup> E.g. similar instruments could be used as it is the current practice for cars in the form of taxes on the purchase of new vehicles, fuel taxes and road pricing.

<sup>8</sup> Taxes and charges for environmental purposes have been discussed in the Commission Communication on Environmental Taxes and Charges in the Single Market (COM(97)9 final). A further Communication on the wider aspects of economic instruments in environmental policy is currently planned.

<sup>9</sup> 2000/53/EC

<sup>10</sup> COM(2000)347 final

Environmental Protection. These Guidelines clarify the possibilities to use aid measures for environmental purposes in compatibility with the Treaty. The planned Directive on **Environmental Liability** should give a strong incentive to companies to prevent damage for which they could be held liable later.

***4.1. How can IPP contribute to getting “the prices right”?***

*What do stakeholders know about market failures in relation to the environmental impacts of products?*

*How can product-related economic instruments contribute to correct these market failures and what other options could be proposed within an IPP approach?*

***4.2. Tools and incentives for greener consumption***

Consumers can make the difference through buying greener products. Their preference for environmentally friendly products is the major driving force for companies to reflect upon ways to green their products and win market shares through innovation and a better design. An important kick-off effect can also come from public procurement. Public authorities need to take their responsibility and be the first in creating demand for greener products. The stronger this demand will be, the faster and more massive will be the shift towards a more sustainable consumption.

***4.2.1. Green consumer demand***

Demand for greener products will be a major driving force for industry to strengthen their environmental efforts and improve the life cycle performance of their products and services. Such demand needs to be created and reinforced through a mutual education process between companies who should actively promote environmental information and consumers who should challenge companies to improve the environmental characteristics of their products. Such a process also needs to involve children who are the consumers of tomorrow. They need to learn the practice of making informed product choices taking into account their environmental characteristics through their parents, kindergartens and schools.

The goal should be that the power of consumer choice stimulates the potential for market-driven continuous environmental improvement of products. An example for such a continuous improvement triggered by information is the mandatory EU energy label. It demonstrates that product information can be effective not only in helping consumers find and choose those products with a better environmental record but also in spurring manufacturers of white goods to market models with the highest energy efficiency and to phase-out their worst-performing models.

Consumers must have **easy access to understandable, relevant, credible information** either through labelling on the product or from another readily accessible source (e.g. consumer and environmental NGOs, websites, public authorities).

Information about product characteristics is available in different forms and from different sources, including claims made by the producer, information from consumer organisations, 3<sup>rd</sup> party verified eco-labels. For most consumer products, relevant environmental information is not available on the product itself. In many cases the consumer would need to look hard for the information and would have to know where to find it. Currently, only the most motivated consumer would do this.

ISO<sup>11</sup> has already developed a framework of distinct types of **environmental labelling**, differing in degree of life cycle thinking and methodology, inter alia<sup>12</sup>. This is an important and useful base for systems, notably eco-labels. Clarity on label types promotes comparability and may promote progression from one label type to another.

Product information on the product through **3<sup>rd</sup> party verified product labels**, (Type I ISO), like the European eco-label<sup>13</sup>, is available for a range of product categories. Eco-labels, whether at national or EU level, are a reference of environmental excellence among products on the market while guaranteeing a minimal good quality ("fitness for use"). As such, they have an important role to play in sustainable consumption as they define in a credible, transparent way, a threshold for distinguishing the more environmentally friendly products from less environmentally friendly ones. They set a high standard for all products in a given category which also other products are measured against. In this way, they have important secondary effects in influencing the further development of the whole range of products. There are cases where the eco-label standard later became a general product standard. Therefore, *their scope should be extended to cover as many products as possible*, targeting those product categories for which they are likely to be most effective.

However, these schemes are complex and have not yet used their full potential to influence the market. Tests must be carried out, the application must be made and approved, and fees must be paid. To boost the use of eco-label schemes at national and EU level, *these schemes should receive more public funding*. This would not only allow fees to be reduced but, more importantly, would make possible a much greater marketing effort to promote the knowledge and use of these labels to both manufacturers, retailers and consumers.

The general philosophy of increasing the amount of product information on the market calls for flexible and cost-effective solutions. For example, the *criteria* of environmental performance developed for product groups, based on a transparent examination of life cycle considerations, could be more extensively used. This could be done not only in the labels themselves but *in any situation in which the market needs to distinguish between greener and less green products* (e.g. public procurement, benchmarking exercises, eco-funds, indicators, self-declarations, essential requirements). Procedures and other aspects of developing these possibilities for effective impact would have to be considered.

The question of how relevant, understandable and credible environmental information can be brought to the wider mass of consumer products in a way that would help consumers choose those which have the lesser environmental impact is

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<sup>11</sup> ISO is International Organisation for Standardisation

<sup>12</sup> ISO 14021:1999, 14024:1999, ISO Type III/TR 14025:2000.

<sup>13</sup> Ecolabel, EUROPA site

still open. *In this context, with a view to developing a wider labelling strategy, the Commission intends to review its eco-labelling strategy.*

**Green claims and self-declarations**, ISO Type II, are perhaps most likely for the foreseeable future to be used on a broad scale. In practice, a lot of environmental information on products is presented in the form of self-declarations.

*The Commission is finalising guidelines for making and assessing environmental self-declared claims by producers or distributors, based on the ISO 14021:1999 standard, with the objective of preventing misleading claims and encouraging good ones. A reference to the transposed European standard and to the guidelines may be made in the Directive on Misleading Advertising, currently under revision. Monitoring of claims by Member States and stakeholders is essential.*

**Product environmental declarations** in line with ISO Type III<sup>14</sup> are still scarce on the market but are beginning to come into use, especially in business to business communication. *There may be a need for European co-operation in support of their use.*

An aspect of information relates to **informed consumer practice**. The environmental impact during the use phase of a product can often be reduced if the product is used in conformity with the producer's or consumer organisation's recommendations. For EU eco-label products, information on the correct use of products to minimise their environmental impact is often a key requirement. Certain industries and their associations have started public information campaigns about this.

**Communication technologies**, including the Internet, open up ways of making information more accessible. They offer also the possibility for two-way information transfer, providing value to producers as well as consumers, in the current context of highly-differentiated and user-oriented products. *This could be the subject of an exchange of best practice and evaluation.*

**4.2.1. How can consumer demand be “greened” most effectively?**

*How can consumer information on the environmental characteristics of products be improved? How can it be ensured that consumer information contributes to consumer “knowledge” and “awareness”?*

*How can the impact and cost-effectiveness of environmental labelling schemes be increased?*

*How can consumer awareness and behaviour concerning an environmentally optimal use of products be improved?*

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<sup>14</sup> More accurately, ISO Type III/TR 14025:2000; consist of quantified environmental data on all significant impacts based on procedures and results from a life cycle study with additional relevant information e.g. on environmental management systems or social aspects, if appropriate.

#### 4.2.2. *Public procurement*

Public procurement represents 12 % of EU GDP on average, but can be as much as 19% in some Member States, for example France<sup>15</sup>. These numbers underline the **purchasing power of public authorities**. Public authorities should take their responsibility and act as leaders in the process of green management and in changes of consumption towards greener products. If a substantial part of public authorities increases their demand for green products this will have an enormous effect on the market of environmentally friendly products and will get industry to increase their production of green products substantially.

The EU public procurement rules are of an essentially economic nature but have also to be seen in the light of the sustainability requirement of Art. 2 of the EC Treaty. Above a certain threshold in terms of monetary value of the contract, European Directives apply. They contain specific obligations and procedures, offering, on the one hand, numerous possibilities to take into account environmental considerations in public purchases, but, on the other hand, they could, in certain cases, limit the differentiation in favour of more environmentally sound products or services<sup>16</sup>. The Commission will also look at the feasibility of promoting green purchasing by introducing an obligation to carry out, before purchasing, an assessment of the environmental impact of the different alternatives available that meet the needs of the contracting authorities. In this way, decisions will be taken with full awareness of the environmental consequences. The entry into force of the Amsterdam Treaty and, to some extent, new legislation could help in this respect. It should be noted that below the thresholds, public procurement rules are not harmonised, which means that purchasers are generally freer to prefer green products, although they are bound to observe other applicable provisions of the Treaty, notably those regarding the free movement of goods.

There is, however, an even more significant barrier to greening public procurement, namely that public purchasers generally lack specific information as to what environmental characteristics they should seek for a given product. This is important because if the eco-criteria for products are clearly specified in the subject matter of the contract, the public sector can purchase environmental products without constraints.

Systematic **awareness raising initiatives** of public procurement authorities are needed. In this regard, the *Commission will adopt an Interpretative Communication on Public Procurement and Environment* that addresses the question to what extent it would be possible to require the use of a specific production process or to take into consideration all costs incurred during the whole life cycle of a product. A handbook and/or a communication on Green Public Procurement with examples on how to draw up green calls for tenders in conformity with EU law is also under consideration.

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<sup>15</sup> OECD, 1999, "Greener Public Purchasing: issues and practical solutions", p. 11

<sup>16</sup> see Interpretative document on Community public procurement legislation and the possibilities for taking account of environmental considerations in public procurement (Commission Communication in preparation)

In order to *facilitate the access to product criteria* for the call for tenders a network to exchange best practice of databases of eco-product criteria for public authorities might be discussed, based on existing initiatives in Member States and on the existing EU eco-label criteria. The Commission could *co-ordinate and facilitate such an information exchange*, inter alia via internet.

The **Commission** intends *to take the lead in greening its procurement activities*, thus stimulating the dissemination and development of environmentally friendly products. Wherever available, the Commission will, within the framework of public procurement law, give preference to products which fulfil the requirements of the EU ecolabel criteria. The Commission intends to register under the EMAS<sup>17</sup> scheme and encourages other public authorities also to follow this example. This process shall be evaluated with a view to increase the number of purchased environmentally friendly products gradually. An evaluation of this experience shall be published and made available to Member States and local authorities.

**4.2.2. How can “green” public procurement be promoted?**

*What should be the role of “green” public procurement within an IPP approach?*

*What obstacles need to be overcome in order to “green” public procurement?  
How can it be stimulated?*

**4.3. Tools and incentives to strengthen business leadership in greener production**

Successful businesses are ahead of future developments in taking up market opportunities. Good environmental management and product design is a key to future market shares in a sustainable economy. Thus, it is not surprising that the leading companies in business development are also those who are most advanced in greening their products. From December 1993 to August 2000, the companies that are part of the Dow Jones Sustainability Group Index have outperformed the general Dow Jones Global Index by 86.5%<sup>18</sup>. The challenge for an Integrated Product Policy Approach is to reinforce and broaden this move towards sustainability to ensure a faster change towards greener products. To do so, measures are envisaged to encourage the development and availability of tools to improve the environmental performance of products and to strengthen incentives for businesses to take the lead in becoming sustainable companies.

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<sup>17</sup> Community Environmental Management and Audit System

<sup>18</sup> The DJSGI is based on the economic performance of companies (products and services) which were identified as sustainability leaders according to a number of criteria. These criteria may be debatable in their detail but are globally one of the very few attempts to identify proactive companies and compare their performance to the general stock market. The companies that are part of the DJSGI have increased their share values from December 1993 to August 2000 by +240.6% while the general DJGI has risen by +174.1%.



### 4.3.1. *Generation of product information*

For a sustained shift in the market towards taking environmental aspects into account, it is important that stakeholders have and use information on the life cycle environmental impacts of the products or components about which they are deciding. In general, the availability, user-orientation and leverage in the market of accurate, non-misleading information needs to increase.

- Manufacturers should know the environmental profile of the components they are incorporating in their products.
- Designers should examine life cycle impacts of their choices and have easy access to existing life cycle data and methodologies to do so.
- Producers should pass on information down the chain to consumers and buyers in an easily accessible form.
- Retailers, consumers and buyers should recognise which are greener products.

In order to improve the life cycle performance of a product, it is necessary to understand it. Therefore, a first step in spreading life cycle thinking throughout the economy is the **generation and collation of information** on the life cycle environmental impacts of products.

Such information can be assembled in Life Cycle Inventories (LCIs) and interpreted in Life Cycle Analyses<sup>19</sup> (LCAs). LCIs and LCAs are neither simple nor cheap to put together. Some elements are in the public domain, others not. Their value depends on their quality and on their relevance to the user's needs and options. The Commission considers the development and collation of easily available life cycle information a priority. Ways to do so could be to harmonise and eventually *link existing life cycle information and, if appropriate, set up new databases* that conform to agreed data standards. The public availability through databases of existing standard life cycle data will be encouraged in co-operation with consumer and industry organisations as well as relevant agencies such as national environmental protection agencies and the European Environment Agency. Links to other relevant information (e.g. best practices of life cycle performance among product groups, new technologies of environmental interest) shall also be made more easily accessible.

*Tools should be developed and made available which allow a fast check of the environmental impacts of products*, in particular for those actors such as small and medium-sized enterprises who do not dispose of the expertise and resources to conduct life cycle analyses themselves. *Similar tools should address the management of life cycle environmental information flow along the product chain. Benchmarks, technological state of the art, key performance indicators, guidelines for design (see Section 4.3.2), standards (see Section 4.3.3), should be developed* to serve as yardsticks against which producers and consumers could compare the environmental characteristics of particular products.

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<sup>19</sup> Life Cycle Analysis (LCA) is a method for assessing the environmental aspects and potential impacts associated with a product, by compiling an inventory of relevant inputs and outputs of the defined system, evaluating the potential environmental impacts associated with these inputs and outputs, and interpreting the results. In practice, LCAs may be deliberately simplified or their scope may be limited, but in principle, they are comprehensive, systematic tools.

The Commission intends to *host one or several expert workshops* on practical options and needs.

The goal of the IPP approach is not necessarily to require full life cycle analysis for all relevant decisions. More important is the identification of key information and its translation into a general life cycle thinking.

A possible instrument to increase the generation and availability of information is to **oblige and/or encourage producers** to *supply key data along the product chain and to consumers*. The details of such an obligation/encouragement and its implementation would have to be worked out and evaluated according to cost-effectiveness criteria. Existing initiatives of producers and other stakeholders could be used as a source of inspiration for such measures. Examples for such initiatives are:

- The Supply Chain Management initiative of EICTA (European Information and Communications Technology Industry Association) has the objective of developing a common European supply chain management approach for the electronics industry, simplifying data collection for both the requestor and the supplier whilst driving environmental improvements in supplied items. This will ensure a common list of reportable materials and a common template for providing product information. It will allow comparisons on critical materials to be made between suppliers.
- In the automotive sector, the End-of-Life Vehicles Directive has encouraged automotive manufacturers to form a strategic alliance to develop a common IT system to collect data on product materials, called the International Material Data System (IMDS). This central database will allow each part of the supply chain to input data on their products. As a hierarchical database, car manufacturers can then collate information at various levels to be able to supply reports on the composition of the vehicle itself, as the sum of its various components. Full compositional data is disclosed tier by tier by direct interaction with the database. Charging for access to reports pays for maintenance of the system. EICTA is investigating whether to integrate their scheme into the IMDS system.

There are various options for the role of initiatives to be created and/or further developed within an IPP framework. One option could be based on information on a set of broadly-applicable criteria, guided by environmental policy objectives and established design guidelines. Another could be to focus on information relatively easily known to producers, understandable and verifiable by consumers themselves, such as expected product lifetime, expected cost of disposal, guarantee of repairs, expected running costs.

***4.3.1. How can more reliable information be generated on the environmental characteristics of products?***

***What role can the provision of information play to implement the IPP approach?***

***What initiatives can be taken to promote the generation, flow, availability and use of life cycle related information and should they be voluntary or mandatory?***

***How can IPP contribute to further develop and link these initiatives?***

***Can obligatory key data/information provide added value to voluntary schemes?***

**4.3.2. Guidelines for product design**

One form of information which might be particularly effective in promoting life cycle thinking among companies is eco-design guidelines. Work has been carried out in various fora, including ISO/TC 207, on general and product group-specific design guidelines.

The development of a generalised strategy for the integration of the environment into the design process will need to take into account the complexity and the diversity of products and the rapidly evolving knowledge and know-how in the design field.

Such a strategy should be geared to

- optimisation of the service provided by the product;
- conservation of resources;
- reduction of waste;
- reduction of pollution;
- reduction of hazards and risks.

Design concepts to pursue these goals include

- design for cleaner production and use; (examples: source reduction, leading to reduced mass, less wastes; minimal energy consumption);
- design for reduction/substitution; (of hazardous, toxic or otherwise environmentally unfriendly materials, in the product or in accompanying consumption);
- design for use of renewable materials;
- design for durability; (examples: reparability, maintainability);
- design for longevity; (examples: upgradability; classic design, accommodation of future needs);

- design for extended function; (examples: multifunctionality, modularity);
- design for reuse and recycling; (examples: simple disassembly, reduced material complexity, use of recyclable and recycled materials; component recovery through closed loop re-manufacturing and secondary applications);
- design for simplicity; (should lead to lower manufacturing costs, lower material mass, greater durability, easier disassembly for maintenance or asset recovery).

The Commission intends *to encourage the elaboration, dissemination and application of such guidelines*. They shall also be integrated into the development of Community initiatives, e.g. in the framework of the New Approach (Section 4.3.3), specific product regulations and environmental labels (Section 4.2.1).

#### ***4.3.2. How can environmental aspects become a key feature of product design?***

***What activities on environmental design guidelines exist? How can the Community contribute to the development, dissemination and application of such guidelines?***

***How can eco-design guidelines be integrated in ongoing and future Community initiatives***

#### **4.3.3. Standardisation and the New Approach**

Out of the five thousand or so European **standards** implemented today, many are product standards. Some are applied without a legislative background, some are in support of regulation, e.g. the New Approach. Today product certification in accordance with a specific European standard confirms "fitness for use" and "safety for the user". *It is highly desirable that in the near future the idea of "environmental soundness" is also associated systematically with products meeting a European standard.*

Standards<sup>20</sup> are the result of a consensus-driven process which is open to all interested parties. Although standards are generally non-binding, they set important rules, which are in many cases applied throughout the market. Standards can be an important element influencing the environmental impact of products.

Beyond formal standards, alternative forms of consensus (e.g. Workshop Agreements) have been developed by the standards organisations. These "New Deliverables" do not undergo all procedural requirements of formal standards but can rapidly be elaborated as consensual solutions to quickly evolving market needs or less stable innovations.

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"By ensuring that all enterprises providing a product or service do so within a verifiable and measurable set of technical or professional norms, standards can level the playing field in areas of collective concern ranging from public health, safety, environment and products/process/service quality. In this way, a number of standards become mandatory either as an expression of regulatory intention or more spontaneously, through the interplay of the market forces (i.e. technical regulations and "de facto" mandatory standards); OECD1998, "What do standards for environmental management system offer?", p.17

Proposals to better use standardisation in the context of the IPP approach could include:

- Developing standards or other consensus driven products of relevance to environmental protection.
- Incorporating environmental aspects in the process of European product standardisation, e.g. when developing new and reviewing existing product standards.
- Developing and applying environmental guidelines for the formulation of new product standards and reformulation of existing ones.

The Commission intends to co-operate with the standardisation bodies and relevant stakeholders to *develop mechanisms to integrate systematically environmental characteristics into product standards*. Ways need to be found to advance the greening of standardisation through the participation of civil society actors. Furthermore, discussions are currently under way how to improve and enlarge the role of the environmental help desk of CEN.

Another prospective field of action closely related to standardisation is the potential of **New Approach legislation** for promoting eco-design. New Approach directives are total harmonisation measures that define binding essential requirements. Producers are free to choose the means by which they demonstrate that products comply with the essential requirements. One way of doing so is by applying “harmonised standards” developed by CEN, CENELEC and ETSI<sup>21</sup> following a mandate of the Commission. Compliance with these harmonised standards gives presumption of conformity with the relevant legislation and allows the product to circulate freely within the Internal Market.

The New Approach and standardisation have become a central and successful pillar of Community legislation on health and safety aspects of product design. The so far only experience of using the New Approach technique specifically for environmental design of products is the Packaging and Packaging Waste Directive<sup>22</sup> although there are discussions on the completeness and appropriateness of the New Approach elements of this directive. Similarly, the standards elaborated on this basis have raised substantial debate. The mixed experience with the Packaging and Packaging Waste Directive should be taken as a basis to *launch a debate on how the New Approach could be best applied in new initiatives* such as the planned Directive on Electrical and Electronic Equipment (EEE). The objective of this planned directive is to ensure a continuous and sustained improvement in the overall environmental impact and resource consumption of EEE by integrating a holistic approach to environmental thinking into the product development process while assuring the free circulation of goods in the internal market.

Some ideas on options to deal with the particularities of eco-design within the framework of the New Approach are laid down in Annex II.

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<sup>21</sup> CEN, CENELEC, ETSI are, respectively, European Committee for Standardisation, European Committee for Electrotechnical Standardisation, European Telecommunication Standards Institute

<sup>22</sup> 94/62/EC

***4.3.3. How can IPP contribute to greening the standardisation process and to use the potential of New Approach legislation optimally?***

***How can environmental characteristics become an integral part of the standardisation process?***

***How can the New Approach legislation contribute to the promotion of environmental characteristics of products (compare also Annex II)?***

#### **4.3.4. Product panels**

Economic operators are in general ready to embrace environmental considerations into product design and manufacturing as long as this does not substantially compromise their competitive position. Equally, consumers will prefer greener products as long as there is no disproportionate price difference. In many cases, it will therefore be sufficient to create a momentum for environmental improvements of products by launching a debate among stakeholders. This allows faster and more business-oriented reactions and can resolve environmental problems before legislation is needed.

One possible route towards this goal would be to *set up stakeholder groups to work on how environmental goals can be achieved or obstacles overcome in relation to their particular product group*. For the purpose of the IPP approach, such stakeholder groups can be called **product panels**. Such panels can be set up in various formats and need to be adapted to the issues considered. Such issues may concern the overall environmental performance of specific products or product groups but also specific issues for one or several product groups (e.g. the reduction of hazardous substances in particular products or product groups). In some cases, these panels may be largely self-organised, in other cases public authorities and the European Commission may be more closely involved. There is also similarity to the mechanism of workshop agreements used by the European standardisation bodies<sup>23</sup>. Such workshop agreements may also be used for similar purposes, depending on the context.

In order to ensure an efficient use of resources, it should however be made sure that such panels are only set up in cases in which there is potential for substantial progress towards EU environmental objectives. Other pre-conditions should be the readiness of stakeholders to work together, acceptance of reasonable conditions of transparency, participation, information quality etc, and some indication that stakeholders might be ready to act after the panel's work is completed. Examples of similar initiatives are Auto-Oil and the various panels organised in Denmark.

An efficient discussion needs preparation. An initial analysis of the issues to be dealt with should be prepared to allow the discussion to take place on a common understanding. The tasks of the panels should be clearly and practically defined. Time limits should be set to avoid the risk of protracted discussions without tangible results. Finally, an appropriate evaluation of the results should be made. In case of

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<sup>23</sup> compare annex II

failure to produce the envisaged results, the work of these panels can be used to prepare other instruments such as regulation.

***4.3.4. How can the design process of products be influenced to better take into account environmental factors?***

***Are product panels suitable solutions and how can they be organised in practice?***

***Is there any experience available from similar initiatives?***

#### **4.4. Other supportive instruments**

There are a number of instruments which, although not primarily focused on products, might stimulate operators to follow a life cycle approach. These instruments include the environmental management and audit systems ISO 14001 and EMAS, environmental reporting, the LIFE instrument and research and development.

##### **4.4.1. Environmental management and audit systems**

Environmental management systems are designed to help companies to improve their environmental performance including the life cycle performance of their products, activities and services. They allow organisations to have a clear picture of their environmental impacts, help them to target the significant ones and manage them well. Environmental management systems also help to introduce a change in management style by bringing environmental issues into the day to day management of companies.

The European EMAS Regulation<sup>24</sup> adopted on 29 June 1993 and the subsequent international standard ISO 14001 are applied by a rising number of companies and other organisations.

EMAS II will, in the same way as the ISO standard, cover not only the industry sector but all sectors and will concern not just the environmental impacts of economic activities, but also of their products and services.

*Such environmental management systems can therefore help to spread the IPP approach throughout the European Union. Firstly, because they initiate management change and secondly because they provide environmental information and ways to manage this information which correspond well to the IPP approach.*

The condition for this is that these voluntary instruments are applied on a broad basis covering a high percentage of economic activities. For organisations, environmental management means efficiency and environmental improvements as well as financial

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<sup>24</sup> Council Regulation (EEC) No 1836/93 allowing voluntary participation by companies in the industrial sector in a Community eco-management and audit-scheme. The revision of the existing EMAS Regulation (EMAS II), which will be adopted soon, takes over the international standard ISO 14001 as the environmental management system component of EMAS, so that in future both systems are compatible.

benefits and better image. For interested parties and the public, it signifies that organisations are taking seriously their responsibility in relation to environmental issues. In addition, EMAS should bring in future 'regulatory benefits' for participating organisations. Member States are supposed to consider how EMAS registration may be taken into account in the implementation and enforcement of environmental legislation. This will lead to environmental controls taking into account the EMAS implementation through lightened frequency or bureaucracy; more flexible reporting and permit procedures and, in certain cases, subsidies for the implementation of the management system and registration fees.

In order to allow public authorities to have a better overview of the potential incentives for EMAS registration the Commission services intend to organise an exchange of views amongst the Member States once the new EMAS Regulation has been adopted. As indicated in section 4.2.2, the Commission also intends to register itself under the EMAS scheme.

***4.4.1. How can environmental management systems contribute to the greening of products?***

***4.4.2. Research, development and innovation***

The IPP approach is based on the idea that there can be a new dynamic in which producers find incentives to include environmental aspects in their strategic thinking and in their product design. This business-internal momentum for innovation should be reinforced through assistance by research and development Programmes. Ongoing Programmes include e.g. the Growth Programme within 5<sup>th</sup> Community Research Framework Programme which, inter alia, supports research for more environmentally friendly electrical and electronic products. Such research Programmes support conceptual, organisational and technical innovations to meet future needs of society with substantially less resource use and lower environmental impacts. The link between Integrated Product Policy and such Programmes needs to be strengthened and extended on all levels where research is funded and also with a view to making the development of greener products and services a priority for the 6<sup>th</sup> Community Research Framework Programme.

To better promote innovation, the drivers for environmental product design, changes in the market, system-level changes, evolving societal needs, futures scenarios etc. need to be better understood. Further efforts need to be made to develop, harmonise and diffuse the Life Cycle Analysis methodology and to facilitate its easy application, in particular by small and medium sized companies. In order to facilitate life-cycle assessment in SMEs, research could include the development of more simplified methodologies. In addition, research could contribute to identifying product categories that have a considerable impact on the environment, and could contribute to conducting detailed LCAs of such products.

The Community and other authorities should provide facilities to fund projects and networks wherever research and development Programmes can have a substantial impact in triggering innovations for new, more environmentally friendly products and service systems.



From a policy perspective, evaluation of the effectiveness of instruments and indicators of progress will be a continuing requirement. The broadly-based change in products and consumption sought via the IPP approach presents challenges. Research could help, in developing indicators, for example.

***4.4.2. How can the Community Research and Development Programmes contribute to IPP?***

**4.4.3. LIFE**

LIFE<sup>25</sup> is the only instrument which specifically supports in financial terms the development of Community environmental policy as described in the consecutive Community action programmes. The new Life III Regulation was published in July 2000 and has brought significant and very positive opportunities for the implementation of the IPP approach.

LIFE III has widened the scope for innovative and demonstration projects designed to promote sustainable development and for preparatory measures designed to develop or revise Community policy.

The specific objective of LIFE-Environment is to contribute to the development of innovative and integrated techniques and methods. The LIFE guidelines on demonstration projects mention the IPP approach as one of five specific objectives, along with land use development, water and waste management and impacts of economic activities.

There is a particular focus on demonstration projects dealing with eco-design, eco-efficiency and green financial products (investment funds, credit or insurance facilities linked to environmental criteria) as well as eco-labelling.

***4.4.3. How can the LIFE programme contribute to IPP?***

**4.4.4. Accounting and reporting for the environment**

Accounting and reporting for the environment has become increasingly relevant to enterprises. Moreover, how the environmental performance of an enterprise affects its financial health is of growing interest and sometimes concern to investors, creditors, governments, and the public at large. The Annual/Financial Report of a company is the principal way in which stakeholders keep themselves informed of the activities, progress and future plans of a company. However, currently there is no standard way of presenting environmental information and no analytical standards for their interpretation. This weakens the impact of financial reporting.

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<sup>25</sup> LIFE is a Community financial instrument for three major areas of action: Environment, Nature and Third Countries.

The Commission has undertaken a study in order to identify disclosures that allow for standardisation and comparability of environmental information being presented in corporate Annual/Financial Reports. Guidelines on how to incorporate environmental costs and benefits into a company's annual account might follow.

***4.4.4. How can financial reporting systems contribute to the “greening” of products?***

## 5. NEXT STEPS

The purpose of this Green Paper is to **initiate a public debate** on the proposed strategy and its elements as well as the prospects opened up for stakeholders, governments and the environment in the greening of products and the IPP approach. This debate shall both address the ways how an EU framework shall be set up and the practical means for implementing such a framework<sup>26</sup>.

This will in particular involve discussion of this paper in the **European Institutions**, in particular the Council and the European Parliament who will be closely associated to the further development of the Integrated Product Policy approach and its elements. The Commission also intends to use and support the **informal European IPP network of Member State experts** as a forum for discussion and exchange of experience on the subjects of the Green Paper and Integrated Product Policy in general.

For all other stakeholders such as local governments, business and consumer associations, non-governmental organisations and other interested actors who wish to take part in this debate, the Commission will organise a number of **stakeholder consultation events**, focused on major topics in this Green Paper. They will be announced on the Commission's website: <http://www.europa.eu.int/comm/environment/ipp/home.htm>. The summaries of discussions and the main conclusions will be published on the same site. Requests<sup>27</sup> to participate in such stakeholder events can be addressed to the following e-mail address: [env-ippstakeholder@cec.eu.int](mailto:env-ippstakeholder@cec.eu.int).

**Written comments** by stakeholders should be sent to the Commission at the latest on 30 June 2001. Submissions should be addressed to Mrs. Marianne Klingbeil, Head of the Unit on Industry, Internal Markets, Products, Voluntary Approaches (DG Environment E.4), 200 rue de la Loi / Wetstraat 200, B-1049 Bruxelles/Brussel, Belgium. Comments may alternatively be sent by e-mail to the following address: [env-ippstakeholder@cec.eu.int](mailto:env-ippstakeholder@cec.eu.int). The various language versions of the Green Paper as well as related documents can be found at the following internet address: <http://www.europa.eu.int/comm/environment/ipp/home.htm>.

The outcome of the debate should provide an insight into how the IPP approach can be best integrated into environment policy. The debate will be the basis for a **Communication** which is planned for the second half of 2001. This Communication will contain a summary of the debate and set out the conclusions of the Commission for the implementation of the IPP approach.

As the Integrated Product Policy approach is based to an extent on existing initiatives, there will be ongoing work on these instruments in parallel. As indicated in this paper, there is also the intention to set up a limited number of test cases, in particular for product panels.

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<sup>26</sup> An overview of the main actions envisaged in the strategy to implement the IPP approach can be found in Annex III

<sup>27</sup> They should contain a description of the stakeholder and his/her particular interests on Integrated Product Policy. Invitations will be sent out according to the number of available places. As a rule, only one member per association will be accepted and no funding will be provided unless specific reasons can be brought forward.

## **ANNEX I: IPP studies and stakeholder consultations**

In 1997, the Commission contracted a study on integrated product policy (IPP)<sup>28</sup>, characterising it as a comprehensive approach, addressing actions, actors and impacts along the whole life cycle of products. The study looked at the development of IPP in Member States and the use of the product life cycle concept by industry and consumers. The authors put forward a general analysis of IPP, constructed around five "building blocks" of policy initiatives, on the themes of waste, innovation, markets, information, responsibility. They saw the role of an EU policy as articulating a common vision of what IPP is trying to achieve, diffusion of best practice, integration of the concept in EU policies, and some specific EU IPP measures.

With this study as a basis, the Commission organised a stakeholder workshop at the end of 1998. The topics raised were broad-ranging. General conclusions underlined consensus around the interest of a product life cycle approach and the related stakeholder involvement. Information along the product chain was seen as fundamentally important. A number of instruments were recognised as relevant: environmental management systems in industry, environmental labelling of products, integration of environmental considerations into product standards, greening of public procurement, environmental agreements. A need was expressed for more clarity on the vision which IPP represents, its overall purpose and objectives.

A follow-up study on recent developments in IPP policies in Member States and implications for EU policy<sup>29</sup> confirmed that the majority of Member States do not yet have an active policy. For those which do, despite there being reasonable consensus on key principles underpinning IPP, there is considerable diversity as regards implementation. Most Member States seem to be keen for the Commission to take a lead, to aid those which have not yet taken action or to define a framework which will apply consistently across the Community.

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<sup>28</sup> Ernst & Young/SPRU for the European Commission 1998, Integrated Product Policy. The executive summary of the study can be downloaded from the Commission IPP website (<http://www.europa.eu.int/comm/environment/ipp/home.htm>).

<sup>29</sup> Ernst & Young for the European Commission 2000, Developing the Foundation for Integrated Product Policy in the EU. The study can be downloaded from the Commission IPP website (<http://www.europa.eu.int/comm/environment/ipp/home.htm>).

## **ANNEX II: Options to deal with the particularities of eco-design within the framework of the New Approach**

The following options are intended as practical ideas for a debate on how the difficulties encountered in the application of the New Approach in the Packaging Directive could be avoided in future New Approach legislation on environmental design of products.

### ***1) Environmental management systems and/or eco-design guidelines coupled with the use of the enforcement system to raise ideas on possible life cycle improvements.***

As the experience of the Packaging Directive shows, it is difficult to define clear and unequivocal essential requirements and standards, which can be used for yes/no decisions on the conformity of products. An idea might therefore be to use criteria related to the process of design decisions as essential requirements instead of concrete requirements for the final product which may be difficult to control. Requirements related to the design process may be established e.g. on the basis of environmental management systems such as ISO 14000/EMAS and/or eco-design guidelines.

Instead of immediate decisions on the conformity of products, enforcement authorities could raise issues where the environmental characteristics of products could be improved directly with producers. If appropriate, such issues could also be put to a broader discussion within industry associations or be brought to the attention of authorities who could then decide on the most appropriate follow-up.

### ***2) The use of “New Deliverables” such as workshop agreements***

The improvement of environmental characteristics of products should be a continuous and ongoing process. Therefore, it might be appropriate to update environmental standards to technological developments more often than this is possible under the procedural requirements for formal standards. Such a fast-track approach could take the form of “New Deliverables”. “New Deliverables” could first be developed as workshop agreements. When their usefulness has been established, they could be upgraded to formal standards giving real proof of conformity. The advantage of this process is that it allows dissemination of such consensus agreements. Similar approaches have been developed in other sectors with rapidly developing sectors, e.g. information technology.

### ***3) The use of eco-label criteria as giving presumption of conformity***

Products bearing an eco-label are particularly advanced as regards their environmental characteristics. It is therefore only logical that such products should profit from an automatic presumption of conformity with legislation on environmental design of products.

#### ***4) The use of key performance indicators to define essential requirements***

Two variations of this approach are possible: In one, clarity on what the key environmental performance indicators are for the products in question is sought before essential requirements are defined and is directly reflected in the formulation of the requirements. In the second, essential requirements are formulated in a rather flexible way, consensus on the key performance indicators is developed by some mechanism after, which in its turn could be an aid in any formulation and implementation of standards. This approach requires the identification of valid indicators that can be applied throughout the product groups in question.

#### ***5) Combining various elements***

The above options along with the classical way of New Approach legislation need not to be seen as incompatible. An option could be e.g. to define clear pass/fail requirements for environmental characteristics of products in essential requirements, standards and/or workshop agreements where this is possible. Eco-design guidelines could then be used for other aspects of the same legislation. Moreover, it might be appropriate to complement such New Approach legislation by classical legislation, in particular for politically contentious issues which are difficult to be dealt with by consensus-driven organisations such as standardisation bodies.

### ANNEX III: Summary of the main instruments and actions

INSTRUMENT	PROPOSED ACTION
Economic instruments	<ul style="list-style-type: none"> <li>• Identify price elements which prevent a more ready take up of greener products in the market</li> <li>• Investigate options for differentiated taxation (e.g. reduced VAT rate for eco-labelled products within New VAT Strategy) etc.</li> </ul>
Producer responsibility	<ul style="list-style-type: none"> <li>• Extend the concept to further areas of Community legislation</li> <li>• Encourage Member State initiatives</li> </ul>
Eco-labels	<ul style="list-style-type: none"> <li>• Extend to more products</li> <li>• More public funding for marketing and fees</li> <li>• Review the Community eco-labelling strategy</li> <li>• Use eco-label criteria for other applications (e.g. procurement, benchmarking, eco-funds, indicators, essential requirements)</li> </ul>
Environmental declarations	<ul style="list-style-type: none"> <li>• Prepare monitoring of the use of environmental self-declared claims</li> <li>• Set up a framework to support declarations in line with ISO Type III</li> </ul>
Public procurement	<ul style="list-style-type: none"> <li>• Adopt an Interpretative Communication on Public Procurement and the Environment</li> <li>• Draw up a Handbook on Green Public Procurement</li> <li>• Co-ordinate and facilitate an information exchange on GPP</li> <li>• Green the Commission's own public procurement</li> </ul>
Product Information	<ul style="list-style-type: none"> <li>• Link existing information on life cycle impacts of products</li> <li>• Support the development and dissemination of easily applicable tools to evaluate life cycle impacts of products (in particular for SMEs) and to improve the information flow along the product chain</li> <li>• Host workshops on the most-efficient ways to achieve these goals</li> <li>• Investigate the potential for schemes to oblige/encourage producers to provide key information on environmental product characteristics</li> </ul>
Eco-design guidelines	<ul style="list-style-type: none"> <li>• Encourage the elaboration, dissemination and application of such guidelines</li> </ul>

Standards	<ul style="list-style-type: none"> <li>• Support the development of standards on the environmental design</li> <li>• Find ways and means in co-operation with all stakeholders to achieve that “environmental soundness” will be systematically associated with all European standards</li> </ul>
New Approach	<ul style="list-style-type: none"> <li>• Review the potential of New Approach legislation to encourage greener product design</li> <li>• Ensure an optimal use of the New Approach in legislation such as the planned Directive on Electrical and Electronic Equipment</li> </ul>
Product panels	<ul style="list-style-type: none"> <li>• Develop the framework for product panels</li> <li>• Launch one or two pilot projects in 2001</li> </ul>
Supportive Instruments	<ul style="list-style-type: none"> <li>• Make the link with EMAS</li> <li>• Ensure that green product innovation is a key part of Community Research and Development programmes (FP5, Growth Program; FP6)</li> <li>• Put a focus of the LIFE programme on the greening of products</li> <li>• Investigate the potential of environmental reporting</li> </ul>