Eco-design: Strategies for dissemination to SMEs

Part I: Overall analysis and conclusions

An ESTO project report

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- To contribute to The IPTS Report with articles on relevant topics
- To issue, on a periodic basis, a Techno-Economic Analysis report, which reviews socio-economic developments either arising from technological change or driving it
- To produce input to long-range Foresight Studies undertaken by the IPTS in response to EU policy needs
- To provide Quick Responses to specific S&T assessment queries.

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About the project partners

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Note: This volume (Part I) presents the overall analysis and conclusions of the study "Eco-design: Strategies for Dissemination to SMEs". Part II of the study is available electronically at ftp://ftp.jrc.es/pub/EURdoc/sps00139.pdf. Part II contains:

- the sub-study "Integrated Environmental Protection in SMEs: Identification of Best Practice"; and
- 15 country studies on SME support structures relevant to eco-design.

Executive summary

Introduction

The European Commission is working on the development of a coherent framework for product-related environmental policy, often referred to as integrated product policy (IPP). One of the areas of attention is the support of eco-design. Eco-design refers to the systematic incorporation of environmental factors into product design and development with the aim to reduce the environmental impact of products throughout the whole life cycle. Given the key role SMEs play in European manufacturing and their important contribution to product innovation, DG Environment addressed a request to the IPTS to analyse how eco-design in SMEs can be stimulated in the Community, and to identify best practices, bottlenecks and conditions for giving such support.

ESTO carried out this task using different inputs. First it drew from the results of the preceding ESTO project on the state of the art of eco-design (Tukker et al., 2000), second it carried out a sub-study to understand the peculiarities in supporting environmental protection in SMEs, and third it made an inventory and analysis of the current SME support structures in the EU Member States. This first volume of the report presents the concluding overall analysis, while the second and third points are documented in detail in volume II (published as electronic document[1]).

Drivers and barriers for eco-design in SMEs

In the analysis it turns out for both large firms and SMEs that a primary approach for public policy to encourage eco-design would be to strengthen a market environment that rewards environmentally sound products. A stable and credible environmental policy using different instruments aiming to reduce emissions, achieve closed substance cycles and reduce resource-use is an important factor in this sense. It can be complemented by measures that aim directly at products, such as eco-labelling schemes, environment-oriented public procurement or fiscal instruments.

If there is a market for environment-friendly products, large companies will in most cases not need further government support in order to apply eco-design. The situation is different for SMEs, which often have to deal with limited strategic and operational resources. As has been confirmed by the state of the art study, SMEs are clearly less active in eco-design than large enterprises, and it is unlikely that strengthening the market demand alone will be enough for SMEs to catch up.

The study identifies two main barriers that can be addressed in order to support eco-design specifically in SMEs. First, due to a lack of strategic resources, it is often difficult for SMEs to anticipate future market advantages of producing environmentally sound products. For example, it is more difficult for them to be informed about upcoming legislative

[1] ftp://ftp.jrc.es/pub/EURdoc/sps00139.pdf

developments than for large firms, which are usually directly present in the policy making process leading to environmental legislation.

A second key barrier to the application of eco-design in SMEs is that the eco-design process requires special know-how and tools. While large companies can develop these in-house, most SMEs need to obtain them from outside. Measures to facilitate eco-design in SMEs should address these factors.

Current support structures and policy implications

Currently the availability of such support diverges largely between EU Member States, which can roughly be divided into three clusters according to the nature of support they offer to SMEs:

1. Countries with a diverse system of specific support structures aiming to assist SMEs in applying eco-design.

2. Countries with an effective SME support structure aimed at environmental issues in general but without specific consideration of eco-design.

3. Countries with a rather limited support structure aimed at environmental issues

This points to the need for measures to ensure that sufficient support is available throughout the Community, while the specific character of such support needs to be adapted to the different national or regional circumstances. Chapter 4 of this report discusses to which extent support in Member States corresponds to best practice, and it also points out some deficiencies that have been identified even in the more advanced countries.

In addition to activities at country level and to measures that support a rewarding market environment for environmentally sound products in general, the study identified specific measures that can be taken at a European level to facilitate eco-design by SMEs. Their role is to (1) ensure in a European market the visibility of environmental policy and market signals to SMEs, (2) benchmark best practice in technical eco-design support, (3) supply technical eco-design information, and (4) enhance the feed-back from SMEs in the policy-making process. The core element of such measures is the exchange of information and know-how. Beside public administration it should involve intermediaries, branch organisations and SME associations as well as eco-design knowledge centres and research institutes. It is advisable to integrate all four functions into a single streamlined initiative. More specifically the suggested functions have the following character:

1. Improve the visibility of current and future market opportunities for environmentally friendly products

Adequate information about market opportunities plays a key role to make eco-design happen. In addition to closing possible gaps in the visibility of current market opportunities, it is especially important that SMEs can foresee whether developing

environmentally friendly products can give them a competitive advantage in the medium-term. An important factor in this sense is that evolving legislative frameworks should just be as visible as already existing regulation. SMEs should be more actively informed about the likely developments of the relevant public policy areas on the different levels (European, national, regional, local) as well as about other market-shaping factors.

2. Modulate and transfer best practice of eco-design dissemination

The transfer has to be achieved between intermediaries with diverging degrees of experience and competence in eco-design dissemination. In order to really address the majority of SMEs active in product development, it is important to involve those intermediaries that are well established in mainstream SME support and not only those actors that restrict themselves primarily to the environmental playing ground. At the same time best dissemination practice should be developed further. Given strengthened incentives by IPP, the main focus of measures for SMEs can be directed to technical and informative support.

3. Supply technical eco-design information

Intermediaries need different kinds of technical information. This includes methodological eco-design know-how, compilations of successful cases of eco-design, data and methodology for evaluating the ecological soundness of products. Much of this information exists in the form of eco-design manuals, as evaluation tools etc. Language barriers and a lack of intra- and international networking have so far, however, prevented the optimal distribution of data and know-how within and between Member States. A European network initiative could catalyse such information exchange. Furthermore it is advisable to finance the development of more sector-specific tools and methods.

4. Feed-back function

A standing feed-back mechanism is needed that informs policy-makers at the different levels continuously about the effectiveness of supply- and demand-side instruments in making the products of SMEs more environmentally friendly and about the side-effects of these measures. This allows to adjust policies and to better balance and co-ordinate between individual measures. Involving branch organisations, specific SME associations and other intermediaries in product panels can be an important element of such feed-back.

To be effective, such an initiative aiming at SMEs needs to consider the particularities of sectors and should concentrate on those industries where environmentally sound product development is regarded as especially important and SMEs play a key role. The identification of these key industries is an important initial step.

Finally, such SME measures should be co-ordinated with other Community initiatives related to SMEs, especially those dedicated to innovation or exchange of best practice.

1. Introduction

1.1. The context of the project

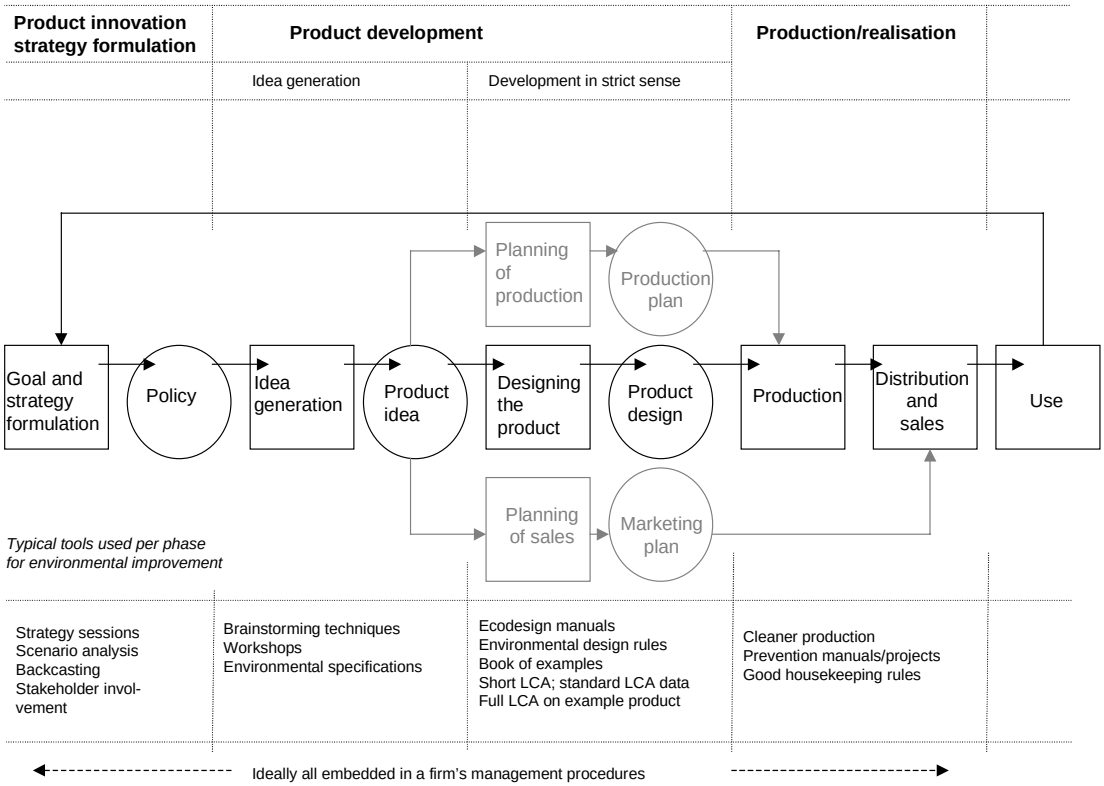
It is often stated that for sustainable development, the resource-intensity of our society has to be reduced by a factor 4 in one generation (Ayres and Simonis, 1994; von Weizsäcker et al., 1998). A product function perspective is often regarded as the best approach to realise such improvements, which is reflected in the latest developments of public environmental policy. The European Commission, in particular, is working on the development of a coherent framework for a product-related environmental policy, often referred to as integrated product policy (IPP; see e.g. EU, 1998). One of the areas of attention is the support of eco-design especially in small and medium-sized enterprises (SMEs). For that reason, the Environment Directorate-General has declared great interest in a project that investigates best practices of disseminating eco-design and other techniques of integrated environmental protection (IEP) to SMEs, as well as existing infrastructures for providing support to SMEs. Such analysis is needed to develop concepts for future Community policy on eco-design.

Eco-design refers to the systematic incorporation of environmental factors into product design and development with the aim to reduce the environmental impact of products throughout the whole product life cycle (including the choice of raw materials, development, production, marketing, use and disposal of products). In a wide definition it means that industries take the environment into account as a key strategic aspect in their long-term product innovation strategy (e.g. Cramer and Tukker, 1998; Elkington, 1998; Stigson, 1998). Various tools and procedures can be used in the eco-design process. Examples include manuals with environmental design rules and checklists with desirable/less desirable materials/components, databases and software that enable a quick evaluation of the environmental life-cycle performance [2] of a specific design, books with examples, etc. Such tools will help to ensure that environmental aspects are taken into account in actual design activities. Further tools and methods are useful for the formulation of product innovation strategies and for idea generation, e.g. strategy sessions, scenario analysis, backcasting or brainstorming techniques. Figure 1.2 reflects these levels and the related tools/approaches.

The EU industry has currently a strong position in eco-design, which is underlined for example by the results of the sixth Japanese Technology Forecast Survey (Science and Technology Agency, 1997). The study sees the EU as clear world leader in LCA-style product design concepts that encourage recycling and reuse. At the same time, this foresight study stresses the socio-economic importance of the approach and concludes that it is the most important of all environmental topics and 15th of all 1072 topics from the diverse technological areas covered in the survey. In the last view years, Japanese industry has, however, dedicated special efforts to the field, and Europe needs to be careful not to fall behind.

[2] Or a life-cycle assessment (LCA).

Figure 1.2: The relation between product strategy, product development, production, and tools for environmental improvements (adapted from Cramer et al., 1994)



The potential to develop specific policies in support of SMEs has been underlined by the results of the recent ESTO study entitled 'Eco-design: European state of the art' (Tukker et al., 2000), which concluded that the intensity of eco-design activities in SMEs lags behind that in large companies. There is only a small group of SMEs with production and design dedicated to environmentally friendly products. Some of these have found clear market niches for their products, and are very conscious and advanced in marketing, developing and designing environmentally sound products. But these are the exceptions.

In a number of the large firms, the development of environment-friendly products is already a strategic issue, particularly in the sectors of electrical and electronic goods, motor vehicles and packaging (prominent examples of resulting products are low energy TV sets by Philips or 3 litre/100 km cars by Volkswagen).

The best way in which public policy can further stimulate the consideration of eco-design in large companies is to further strengthen a market environment that rewards environmentally sound products. A stable and credible environmental policy using different instruments aiming to reduce emissions, achieve closed substance cycles and reduce resource-use is an important factor in this sense. It can be complemented by measures that aim directly at products, such as eco-labelling schemes, environment-oriented public procurement or fiscal instruments (e.g. lowered taxes for unleaded petrol). The extension of end-of-life regulation to

further sectors may also be useful. If there is a market for environment-friendly products or the obligation to take them back at the end of their lives, large companies will in most cases not need further government support in order to apply eco-design.

The situation is different for SMEs, which often have to deal with limited strategic and operational resources. It is unlikely that strengthening the market demand alone will be enough for SMEs to catch up. Due to a lack of strategic capacity, many SMEs have difficulties to anticipate future advantages of producing environmentally sound products. For example, it is more difficult for them to be informed about upcoming regulatory developments than for large firms, which are usually directly present in the policy making process leading to environmental legislation. Another barrier to the application of eco-design in SMEs is that the eco-design process requires special know-how and tools. While large companies can develop these in-house, most SMEs need to obtain them from outside. This is where support measures can be very useful.

Such support needs to be well-targeted to address those SMEs that are actually active in product design and development. As pointed out by the state of the art study, there are many SMEs that have little influence on the specifications of the products they produce; they act as so-called 'jobbers' that just produce according to the specifications and needs formulated by larger actors such as main suppliers or original equipment manufacturers.

1.2. Project objective and method

The objective of the project is to identify strategies and mechanisms through which the diffusion of eco-design to SMEs can be stimulated in the Community. These strategies and mechanisms will be derived from analysing:

- best practices in disseminating integrated environmental protection approaches; and
- instruments, mechanisms and infrastructures that are in place for general SME support in a number of Member States.

The suggestions will take into account the different national environments. The project concentrates on experience with those SMEs that are 'self-specifying' (in relation to who sets the specifications of their products).

The project consisted of three work packages, which have been carried out sequentially.

Work package 1: Which type of SME support is adequate to disseminate integrated environmental protection approaches such as eco-design?

Work package 2: How can existing general SME support strategies in Member States be used and complemented to disseminate eco-design? (15 country studies)

Work package 3: Country comparison and development of policy options.

The core of the project has been performed by the same consortium that executed the earlier project 'Eco-design: European state of the art': TNO-STB, Vito, VDI, the Centre for Sustainable Design, and the TU/TNO Centre Kathalys. The project was initiated by the IPTS, and performed under the umbrella of the ESTO network. For specific tasks, other consultants were also involved. Responsibilities and tasks were divided as follows.

- TNO-STB, the Netherlands, performed overall project management.
- Specialists in the field of innovation processes at SMEs of TU Delft, the Netherlands, were asked to work out work package 1.
- For work package 2, there were four main contributing technical partners, each of which has produced reports for a number of countries. The main technical partners' agents were VDI (Germany), Vito (Belgium), TNO Industrial Research (the Netherlands), and the Centre for Sustainable Design (United Kingdom). TNO-STB developed, together with the technical partners, the report format for the country studies. In some cases, the technical partners subcontracted part of the work to specialists in EU Member States. The country study of Denmark was carried out completely by the Danish Technological University (DTU).
- Work package 3 was performed by TNO-STB together with the IPTS.

This document, Part I of the full study report, summarises the overall results and conclusions of the project, paying special attention to the European level. The complete reports of work packages 1 (best practice of SME support in integrated environmental protection) and 2 (country studies) are published electronically as separate document (Part II of the study report) and are accessible on the IPTS web site[3].

[3] ftp://ftp.jrc.es/pub/EURdoc/sps00139.pdf

2. Supporting integrated environmental protection in SMEs — Identification of best practice

2.1. Introduction

In work package 1 of this project it has been analysed which peculiarities are at stake with regard to supporting environmental protection in SMEs, both on the basis of literature and on the basis of existing experiences with support programmes. Such analysis provides an insight into the approaches that are available to support SMEs, in the field of production in general, or, specifically, with regard to environmental protection measures, including eco-design. The next sections summarise the analysis of the key features of best practice of supporting integrated environmental protection in SMEs. The full work package 1 report by Verheul, H. and van Roost, M. is contained in the – electronically published – second volume of this ESTO project report.

2.2. Specific bottlenecks and success factors for integrated environmental protection (IEP) in SMEs

The literature analysis identified the following main factors to influence the adoption of IEP in SMEs:

- Financial resources are less important than the ability to make a proper cost–benefit analysis.
- Firm size correlates with the adoption of measures in the field of IEP. However, firm size as such is not a causal explanation. Rather, it is a proxy for other factors such as the existence of a formal management structure and a strong negotiating position with suppliers.
- Management capabilities stand out as the central strategic resource needed for the dissemination of IEP measures to SMEs. Key aspects of this resource are the existence of a formalised management structure, monitoring and assessment capabilities, and the potential to negotiate with actors in the supply chain.
- An environmental sense of urgency is also a significant resource. However, the ability to pick up external stimuli regarding environmental issues is more important than a proactive internal environmental strategy.

The potential to compensate the four points above by the social network of SMEs is limited by the ‘closedness’ of many SMEs. The following appear to be the best ways of dealing with this closedness:

- Technical information and support is primarily given by suppliers and branch organisations.
- Local governments are an important source of environmental information, national governments much less so.

- Direct interaction with SMEs through local networks appears to be the most effective strategy.
- For that reason, environmental consultants have an important role to play. However, commercial consultants may not be the best option if consultancy fees form a high threshold, and commercial interests prevent the consultants from participating with an open attitude in dissemination networks.
- IEP support not only can compensate for the lack of strategic resources, but can also create those resources with SMEs. The communication of a systematic approach may contribute to this result.

2.3. Key features of best practice in support for SMEs

Given the issues indicated in Section 2.2, and reviewing the experience with existing programmes for SME support, the following key features can be identified as boundary conditions for successful support programmes for SMEs.

- *Addressing management capabilities as a strategic resource*
  Management capabilities can be addressed by attempting to create a more formalised (environmental) job responsibility, by internal and external monitoring, and by supporting SMEs in their negotiations with suppliers and other stakeholders. The significance of this is reflected by the central role of consultancy activities in current support programmes.

- *Combine financial support with 'soft' support*
  Financial support can be an important incentive. Current support programmes often combine financial incentives with research and consultancy activities. This appears to be more effective than mere financial support.

- *Utilisation of SMEs' existing network relationships*
  The utilisation of SMEs' existing network relationships appears to be an effective means of addressing SMEs regarding support in the fields of production, IEP, etc. These relationships include:

  — branch organisations and other industrial intermediaries (mainly used by current SME support programmes);
  — suppliers and customers (hardly sought for in current programmes, although these have a strong influence on the dissemination of production practices, IEP measures, etc.);
  — local governments (which appear to be an important source of environmental information);
  — consultants, particularly of non-profit-making support centres (elaborated below).

- *One-to-one consultancy in a low-threshold environment*
  Literature, as well as experience with support programmes, stresses the importance of direct contact with SMEs. This appears to be the most effective way of translating general issues with regard to production, quality, IEP, etc., to the specific context of the

individual firm. Private consultancy can be successful, albeit under certain provisions. SMEs are generally not willing to pay for environmental consultancy, so private consultancy will only work if direct benefits are obvious, or third parties will bear the costs. Furthermore, there may be market environments in which private consultants will hesitate to pass on information needs to other organisations, which may lead to an underutilisation of the existing network resources.

- *Loose coupling with the regulatory context*
  In order to create an environmental sense of urgency within SMEs, regulatory pressure is often needed. Beyond-compliance strategies are rarely the reason why SMEs adopt IEP measures. IEP support programmes should therefore be backed up by a regulatory framework. On the other hand, it seems preferable that the IEP support programmes themselves remain on a voluntary basis. Otherwise, the cooperation with industrial partners will become politically unfeasible, and it will become difficult to build a constructive relationship with SMEs. Therefore, a loose coupling with the regulatory context appears to be preferable.

- *Redundancy in network and expertise*
  The heterogeneity of SMEs as a target group makes it impossible to be 'lean and mean' in support for SMEs. Support programmes should create redundancy in the types of actor involved and the types of support and expertise that can be delivered.

- *Remaining issues*
  For some potential best practice features, there is too little or contradicting support. These issues need to be addressed in further research.

  — The significance of the local character of eco-design support: For other IEP measures and SME support in general, this local character is important, but literature indicates that eco-design activities take place in a national or even international context.
  — The involvement of suppliers and customers in SME support measures: Literature shows that these actors exert a strong influence on the adoption of best practice by SMEs, but they are hardly involved in support programmes. The political feasibility or the implementation costs may be a reason for this.

2.4. Towards an analytical framework

On the basis of the above, an analytical framework can be developed for evaluating the availability and quality of SME support in EU Member States with respect to eco-design best practice features. Elements that have to be included in the inventory of support structures, on the level of individual programmes, are as follows.

1. Target group (types of SME, industry sector)
2. Objective of support
   - Specific objective
   - Extent to which management capabilities are addressed
3. Type of support

- Financial only
- ‘Soft advice’
- Or a combination of both

4. Actors involved in direct one-to-one support, plus role
   - Branch organisations
   - Local governments
   - Consultants (non-profit-making or low-threshold commercial)
   - Consultants (other)
   - Suppliers, customers
   - Other parties
   - No clear one-to-one support
5. Success
   - Number of SMEs addressed
   - Persistence of results
   - Any other indication the assessor finds useful
6. Drivers for participation
   - Voluntary
7. Financing/overall management

The drivers (e.g. provided by the regulatory context) can be described on a more generic level, since they are probably not directly related to individual programmes. The extent to which redundancy is at stake can be evaluated by analysing how many programmes address the same target groups, and if they do so via different approaches.

The results of applying this analytical framework in country studies are presented in the next chapter.

3. Analysis of support structures in different groups of Member States

3.1. Introduction

An extensive evaluation of the situation per EU Member State is given in the country studies compiled in Part II of this study[4]. In this chapter, the countries will be clustered in order to compare the situation in different groups of countries and to identify possible improvements concerning support structures. The clusters will be based on the comparability between the support structures in the different countries and the attention that is paid to eco-design. This way the information will be more comprehensible, thus creating a framework for policy implications later on. For each cluster, specific features of some of the EU member states will be highlighted.

The criteria on which the clustering is based are formed according to the attention paid to eco-design and to the best practices that were identified in work package 1 of the project and summarised in the preceding chapter. Using these criteria, we can identify the following clusters of support structures:

1. Countries with a diverse system of specific support structures aimed at the dissemination of eco-design towards SMEs.

2. Countries with an effective SME support structure aimed at environmental issues in general but without specific consideration of eco-design.

3. Countries with a rather limited support structure aimed at environmental issues

In Sections 3.2 to 3.4, these clusters will be discussed more elaborately. On the basis of the country studies in Part II, Table 3.1 reviews the situation in the country clusters. Before discussing the clusters in more detail, however, a few generic remarks can be made. In virtually all of the EU countries analysed, SMEs make up the bulk of the number of industrial companies. Estimates per country range from some 80 to over 95 %. There are, of course, national differences in the types of SMEs. For instance, in Denmark and to a lesser extent the Netherlands, compared to other EU member states only a minor part of the workforce is employed in the manufacturing industry. Furthermore, in countries like Germany, the Netherlands, Sweden and Finland a small number of multinationals are responsible for the major part of the industrial economic output, where e.g. Belgium, Ireland or Greece lack such large ‘home based’ multinationals. Since multinationals in general tend to be more advanced in strategic environmental management, including eco-design, this may influence indirectly the number of SMEs in these countries that practice eco-design. Furthermore, it has to be noted that some EU countries have a very regionalised structure, and activities with regard to eco-design often differ considerably between such regions. The clearest examples are

[4] published electronically at ftp://ftp.jrc.es/pub/EURdoc/sps00139.pdf.

Belgium with its Flemish and Walloon region, and Spain with a number of regions with adifferent levels of autonomy.

Table 3.1: Support structures for SMEs in EU countries (overview; for more details see the tables in Part II of the report).

Country	Target group	Type of support, drivers for participation	Who supports	Remarks
Cluster 1: Institutionalised SME support includes dissemination of eco-design				
The Netherlands	All types of SMEs, but also companies in general. Some programmes dedicated to the 4-5000 self-specifying SMEs	Financial support, advice, example quick scans	Local and national government, state-funded agencies like the Syntens network, NOVEM, SENTER, branch organisations, and consultants.	Still improvements possible with regard to continuity and co-ordination of support activities
Sweden	All types of SMEs, but also companies in general	Financial support, soft advice,	Local and national government, branch organisations, (Swedish EPA, knowledge centre NUTEK)	
Germany	All types of SMEs	Financial support, consulting, education, information	regional government, but also some national government, DBU, ITUT	Extensive structure, with much (useful) redundancy
Denmark	All types of industry and companies, with emphasis on SMEs	Financial incentives, (also working on the demand side of the market), soft advice, education and information.	National and regional organisations (Danish EPA, Technological information centres), consultants and branch organisations.	Often long term structural programmes
Austria	All types of SMEs	Internet-knot, eco-design awards, seminars and workshops for companies, education.	Regional government, Chamber of commerce (networks), Vienna University of Technology, Federal secretariat for science and environment	
Cluster 2: Institutionalised SME support available, may include environment in general				
France	All types of industry and companies, with emphasis on SMEs	Financial incentives, support, soft advice	Regional and local organisations (ADEME, ARIST-centres)	Doing research into eco-design at the moment . A reasonable institutionalised support structure exists, however without much emphasis on eco-design.
United Kingdom	Primarily SME but also industry in general	Free advice, information	DETR, Business eco-network,	Various good SME support networks are available. Several Eco-design activities for SMEs are being set.
Belgium	SMEs, but also industry in general	Financial support, free advise/education	Consultants, organisations themselves Other SMEs, VITO, Branch organisations	Particularly in Flandres a good SMEs support structure is in place. Add-on activities to include eco-design are ongoing. Intentions to set up a Reference centre for eco-design within VITO structure
Luxembourg	industry and SME in general, broad coverage by very different programmes and actors	Advise, financial incentives, education	National government branch organisations	There are several structures in place that could serve as a basis to add eco-design support to it.
Cluster 3: Limited SME support, or still poorly institutionalised				
Italy	SMEs, industry in general	Financial support, soft support, education and training	Local government, chambers of commerce, branch organisations, ENEA	Most of these support services are given in temporary programmes, and the number of SMEs reached is still rather limited. However, some programmes could be the nucleus of more institutionalised support.
Greece	Branch organisations, chambers of commerce, research institutes, firms in general and SMEs	Financial support, soft advice, education.	Consultants, branch organisations and local government.	
Spain	SME and industry in general	Financial support . Some regional support institutes are available, but it is not fully clear to what extent they reach SMEs via hands-on support and soft advice	Technology institutes (CDTI), National government	Inter-regional co-operation seems to be rather difficult to realise
Ireland	General (some SME support)	Financial support, mainly through EU programmes and Government funding	Consultants, Branch organisations.	Advice seems rather general in nature and may be re-active. However, structures like Enterprise Ireland may form the nucleus for institutionalised support
Portugal	Industrial companies	Financial support, mainly through programmes with a limited time horizon (5 years)	INETI, PEDIP	Some support available; main problem is that it is not institutionalised.

3.2. Cluster 1: Countries with support structures aimed at eco-design

3.2.1. Sectors not covered by existing programmes

None of the countries in this cluster appears to have sectors that are still uncovered. There are usually some programmes that deal with companies in general. Besides these general programmes, more sector-oriented programmes are implemented by some of the countries in this cluster (Germany, the Netherlands). Although all sectors are covered, the level of participation can differ between branches.

3.2.2. Analysis of best practice elements

The countries that belong to this cluster of countries have a good 'toolbox' of support structures for disseminating IEP and more specifically eco-design. They comply with most of the demands that are set on the support structures if the key features of best practices are kept in mind. However, there are some gaps between best practices and countries in this cluster.

- *Addressing management capabilities*

There is a small number of support programmes that explicitly address management capabilities (for example EMAS). In most cases, however, it is difficult to assess whether this issue of best practices is actually addressed. There are programmes that will have some influence on the management capabilities, as the management is in charge of the programme. Addressing the management is usually not the primary goal of a programme.

- *Combine financial support with 'soft' support*

Many of the programmes in the front-runner cluster have a combination of financial support and 'soft' support. The latter usually consists of some form of advice given by a non-profit-making institution or subsidised advice from consultancy firms. This is partly consistent with another best practice issue, namely that the advice given to the SMEs is free and on a non-profit-making basis. However, there is still a considerable part of the programmes that consists of financial support only.

- *Utilisation of SMEs' existing network relationships*

This occurs on a large scale in this cluster. The network relationships that are used are very diverse. Branch organisations and local governments, however, are central actors in quite a few programmes (Denmark, the Netherlands). In some countries, the chambers of commerce play a crucial part in the network surrounding SMEs (Germany, Austria). These differences have more to do with the institutional differences between countries than with the network approach. Consultants are also named frequently as participants in programmes; however, it is questionable whether these were a part of the network before the implementation of the programme.

Another possibility is the use of networks that were especially set up for the dissemination of innovation among SMEs, for example schemes like the Syntens network in the Netherlands.

The different offices that form the network have close contacts with SMEs in their region, which makes them ideal for dissemination of eco-design.

One aspect is remarkably absent in most of the countries of this cluster — there are almost no programmes that use or stimulate the interaction between SMEs or companies in general. Some countries indicate that the supplier or customer of SMEs can be a great support in the step towards eco-design (Austria).

- *One-to-one consultancy in a low-threshold environment*

Many programmes consist fully or partly of consulting or soft advice. Often this advice is based on a non-profit-making scheme or it is subsidised. The most successful way to address SMEs is by direct contact, because of the closed nature of this type of enterprise. The organisation or individual that is giving the advice to the SME has to be trusted by the entrepreneur. This can usually only be achieved by a hands-on approach over a longer period of time. Therefore, this key issue of best practices is closely linked to the issue of networks. The actors in the network can give advice to the SMEs. They will be easily accepted as they have already won the trust of the entrepreneur. Not all of the more advanced EU member states run their programmes in this way. For example, during the Dutch Eco-design II programme with a few thousand SMEs an 'eco-scan' was performed. However, there is a general feeling that this programme had only limited lasting success, since it was for most companies a once-off exercise, which could not pay the necessary attention at changing procedures, culture, etc. in the company.

- *Loose coupling with the regulatory context*

One can assume that this is the case in this cluster. The countries have either national or supranational regulation that backs up the programmes. The Danish situation can serve as an example. No formal legislation concerning application of eco-design exists, and branch organisations play an important role in support programmes. At the same time, authorities appear to form indirectly an important driver for the actual implementation of eco-design, in relation to environmentally friendly public purchasing programmes.

- *Redundancy in network and expertise*

Redundancy is often the case. Successful programmes often become redundant, as many organisations and institutions with different backgrounds participate in them or set up their own initiative. Although in Chapter 2 it was suggested that this could be a strong point, from the country studies we also found that it has negative consequences. It creates an overlapping which may lead to confusion among SMEs. In the Netherlands, the continuously changing names and programme conditions are creating such a situation.

- *The significance of the local character for eco-design support*

This issue needs to be investigated further, but one can expect that culture and conditions concerning national institutions have some influence on the dissemination of eco-design.

- *The involvement of suppliers and customers*

As has been stated above, this group of actors in the network of SMEs has not been given an active role in the programmes aimed at eco-design. Looking at the characteristics of SMEs

given in Section 2.2, it may be a new approach to address them. This is underlined by the finding that in several member states, most notably Denmark, customer demands were found to be an important driver to implement eco-design.

3.2.3. Elements in the support structures that may cover eco-design

This cluster has a number of support structures that cover eco-design. There are sufficient financial support schemes, which are combined with soft support in most countries. Other structures that can be used as a gateway to eco-design dissemination are the existing networks. These networks may consist of governmental institutions (local, regional or national) and knowledge institutes, but also intermediate organisations can support the SMEs. For example, branch-organisations, because they are sector-specific, can translate the needs of SMEs into requirements for support programmes concerning eco-design, and communicate these to governmental institutes. Intermediate organisations can also help to find the right programme and link interested SMEs to projects. Particularly in Denmark this route via branch organisations plays an important role. Countries like the Netherlands, Austria and Germany have channelled their programmes more via existing government related infrastructure, e.g. Syntens (the former Dutch Innovation Centre) or the Austrian and German Chambers of Commerce.

A more virtual support structure is the Internet, which provides an opportunity for quick and relatively cheap dissemination of information concerning eco-design to SMEs. It is particularly Austria that has made good use of this medium by setting up an extensive eco-design Internet knot (www.Ecodesign.at). Education is also an important support structure. Courses in eco-design at universities and schools provide the basis for future designers to be aware of the ecological consequences of their designs.

3.3. Cluster 2: Countries with support structures addressing environmental issues

3.3.1. Sectors not covered by existing programmes

The main difference between the countries in cluster 1 and those in cluster 2 is that the latter have support structures for SMEs in general, or even environmental support structures, but not yet important structures that help to disseminate eco-design.

The programmes available mostly consist of financial support and soft advice. These programmes are aimed at a broad range of sectors, with some programmes that address specific sectors (for example the food industry in Italy). Network structures exist, but there is a considerable difference between countries. In some countries, the networks are institutionalised, for example in form of the Belgium regional development agencies, while in other countries the networks are more voluntary, like the green business clubs in the United Kingdom. The networks can also be built around other actors, such as branch organisations and knowledge institutes.

3.3.2. Analysis of best practice elements

- *Addressing management capabilities*

The same situation that was described in cluster 1 applies here; there are few programmes that specifically address management capabilities. In some cases, management capabilities are indirectly touched upon, for example programmes like eco-labelling or ISO 14000 implementation. In these cases, management capabilities are essential for the project.
There is, however, one programme that pays specific attention to management capabilities. This is the PLATO programme in Belgium. In this programme, larger companies offer guidance to SMEs, through which they also focus on improving the management capabilities of SMEs.

- *Combine financial support with 'soft' support*

A combination of financial and soft support is available in all the countries in this cluster. The amount of funding and the kinds of soft support, however, differ from country to country. An effort to ensure proper 'soft' support in Belgium is the establishment of a 'Reference centre for eco-design' at one of the most experienced Belgium institutes in the field, Vito[5].

- *Utilisation of SMEs' existing network relationships*

The existing structures are not always used to their full potential at present. Some countries have more advanced network structures, and also the nature of the networks is different. Some have been organised on a regional basis, for example the Finnish regional employment and economic development centres, while others are based on sectors or companies, such as branch organisations. These network relationships provide a good opportunity to disseminate information. An interesting system, that mainly is in existence in the UK, is that of 'Green Business Clubs'. These are information and knowledge exchange platforms at local level; some 100 exist at the moment. Such 'business to business' networks probably can be very valuable vehicles for mutual learning about eco-design.

- *One-to-one consultancy in a low-threshold environment*

In every country in this cluster, there are programmes that pay some attention to consultancy, which is usually by means of a one-to-one approach. The advice is often free and in other cases subsidised, so the company does not have to pay if it wants to acquire advice in the context of the programme.

- *Loose coupling with the regulatory context*

The same situation that was described in cluster 1 applies here. The countries in this cluster have implemented an advanced legal basis (either national or supranational) concerning environmental issues.

- *Redundancy in network and expertise*

[5] The Netherlands has a similar institute, the TU Delft-TNO Eco-design centre Kathalys.

There is redundancy in some of the countries such as Belgium, which has Vito but also the regional development agencies. On the other hand, there are also countries that mainly depend on a single expertise centre or limited expertise.

- *The significance of the local character for eco-design support*

This issue needs to be investigated further, but one can expect that culture and conditions concerning national institutions have some influence on the dissemination of eco-design. Therefore, some countries have networks in place that have close contact with SMEs and pay attention to the local situation.

- *The involvement of suppliers and customers*

Although this does not happen on a regular basis in the different countries, there are a number of cases in which suppliers or customers have a possibility to (directly or indirectly) involve themselves with the environmental policy of companies. For example, in Finland, there is the *Eco-buyers guide*, which makes it possible for consumers to buy sustainable products.

3.3.3. Elements in the support structures that may cover eco-design

Some countries in this cluster do not pay much attention specifically to SMEs. However, this situation is changing at the moment (Luxembourg). There are also, of course, countries which already have good support structures towards SMEs but have not yet used them as a tool to disseminate eco-design (Belgium, Finland). In principle this means they have a good base for giving support on eco-design and if there are initiatives to give more attention to the issue, it can be expected that implementation will be quite straightforward. The main prerequisite is that the existing networks become knowledgeable about eco-design in order to be able to play a role in dissemination.

3.4. Cluster 3: Countries with limited support structures

The countries in this cluster do not have the experience of the other countries in implementing support structures aimed at environmental issues. They usually do not have the advantage of the other countries in the EU because of weak production and technical infrastructure, and a lack of funding mechanisms and financial incentives for SMEs (Greece). It also appears that even though legislation has been implemented concerning environmental issues, many of the SMEs do not comply with these regulations.

Often the EU provides a considerable part of the financial support for the funding of investments directed towards the environment. Support is usually limited to financial funding. There may be one or two advanced institutes in the field of eco-design in the country, but they usually cannot give a structural, national coverage. In some countries, not all sectors of industry are covered, or are poorly covered, from an environmental point of view. Another point is that it is sometimes difficult for companies in these countries to find the information needed.

3.4.1. Sectors not covered by existing programmes

There are no sectors explicitly excluded, but as with the other two clusters there are specific sectors that receive special support.

3.4.2. Analysis of best practice elements

- *Addressing management capabilities*

Management capabilities are hardly ever addressed. Only one example has been identified in this cluster; some of the large multinational companies that have based themselves in Ireland are helping their (Irish) suppliers to implement ISO 14000 systems.

- *Combine financial support with 'soft' support*

A combination of these two types of support does not occur in every country. Some countries only have financial support structures (Spain) or a limited combined support–programme (Ireland and Portugal).

- *Utilisation of SMEs' existing network relationships*

Network structures addressing environmental issues hardly exist in this cluster, which requires attention as networks are an important factor in the dissemination of eco-design. There are some general networks available (such as branch organisations or governmental organisations on a regional or local level) that can serve as a base to address eco-design.

- *One-to-one consultancy in a low-threshold environment*

There is limited one-to-one advice, however, with a tendency to gain importance, as, for example, in the case of some European programmes (EMAS).

- *Loose coupling with the regulatory context*

The countries usually have some environmental regulation, the stringency differing from country to country. However, it is usually a basic level of regulation. An example that characterises the situation in Spain is that Spanish SMEs have serious difficulties in accessing any type of information, including environmental legislation.

- *Redundancy in network and expertise*

There is no redundancy in networks and expertise, and in some countries the programmes are supported by very few organisations; for example Portugal, where INETI is the key player in the network of environmental support.

- *The significance of the local character for eco-design support*

The significance of the local character is very important in this cluster. Because the creating of awareness of environmental problems has just begun, the level of contact is crucial. More cultural, social and regional aspects have to be taken into consideration and in some cases regional boundaries have to be overcome (Spain). Also, most SMEs in the countries in this cluster are very regionally focused. This is illustrated by Italy where sectors of production (food and ceramic tiles) are concentrated in a certain region.

- *The involvement of suppliers and customers*

These actors are not yet considered in this cluster, except for the projects in Ireland, where the multinational companies guide SMEs through the process of obtaining ISO 14000 certification.

3.4.3. Elements in the support structures that may cover eco-design

There is a limited number of elements in this cluster that may cover eco-design. The awareness of environmental problems in the countries that belong to this cluster is just being created. In addition, there are not many networks available that may have possibilities to disseminate eco-design.

4. Policy implications and conclusions

4.1. Introduction

This chapter discusses first the main conclusions of the analysis concerning the success of eco-design dissemination so far and where points of improvements can be seen. Based on this it derives a number of general functions that a European initiative would need to fulfil in order to stimulate eco-design in SMEs, and which specific aspects need to be considered in doing so. Finally, specific policy implications related to the different clusters of Member States are presented.

4.2. Current situation and starting points for measures

The analysis carried out in this report, together with the results of the report 'Eco-design: European state of the art', allows to draw a number of general conclusions about current practice and the success of eco-design dissemination as well as about starting points for improvements:

1. The level of eco-design disseminating activities diverges strongly between individual groups of Member States.

2. In the front-runner countries, considerable experience has been made with eco-design dissemination that allows best practice to be defined which can be transferred to countries lagging behind.

3. The main direction for further improving current best practice in supply-side support for eco-design is to develop sector-specific methodologies and approaches.

4. Even in the eco-design front-runner countries with a best practice support structure, the proportion of SMEs that actively develop environmentally sound products is very low.

5. SMEs tend not to continue eco-design activities once support from outside has ceased.

6. The main reason for the modest uptake of eco-design even in countries with plenty of support activities seems to be that the support focuses mainly on supply-side instruments that show to SMEs how they can carry out eco-design, while at the same time the question why they should do it is not answered satisfactorily. The demand for these products and the incentives to produce them are limited or at least not sufficiently visible to business.

7. Another important problem, especially in the more developed countries, is that SMEs are confronted with a confusingly high number of individual initiatives aiming at integrated environmental protection (eco-design as well as others) that prevents concentrated efforts and leads to disperse and weak effects of badly coordinated efforts.

Generally, it seems that external stimuli regarding environmental issues are not very strong yet and that the market rewards the environmental soundness of products only to a limited extent. This applies to SMEs as well as to large companies. The difference is that large companies often can dedicate more strategic efforts to anticipate (and influence) upcoming developments such as new regulations. (Firms like Electrolux, Sony, Nokia or Ericsson for example claim they have taken proactive steps to implement eco-design in anticipation of the EU directive on waste electrical and electronic equipment. When the Commission finally proposed the first draft of this directive, they therefore strongly opposed collective financial responsibility on industry for takeback of used products and lobbied for individual producer responsibility.) The resources of SMEs to consider strategically such future developments in the market environment are often rather limited.

The fact that until today the incentives to produce environmentally friendly products have not been particularly strong, has consequences for the current best practice in eco-design support to SMEs. In addition to compensating a lack of strategic resources and providing technical advice, dissemination often requires quite strong argumentative efforts to convince SMEs to embark on eco-design. This includes financial support as well as the mobilisation of suppliers, customers or local governments to emphasize the preference for eco-designed products. Such initiatives are usually successful as long as the external support is maintained, but often eco-design in discontinued when the support stops. It is obvious that best practice is not static and that it needs to be developed further, especially also when the market is influenced by a future initiatives of product-related environmental policy.

From such analysis it becomes clear that there is currently a certain imbalance between policy measures that stimulate a demand for more environmentally friendly products and measures that assist firms with methods and know-how to develop such products. It is likely that in countries belonging to cluster 1 further improvements in supply-oriented eco-design support would bring fewer improvements than measures strengthening the demand. The countries of clusters 2 and 3, on the other hand, require strong stimulation on both the demand and supply side. There is the need for a well-balanced product-related environmental policy, which adjusts the different stimuli accordingly. This suggests that in a first phase of developing further this policy area measures should be stressed that make the market more rewarding for environmentally sound products. End-of-life regulation should be designed accordingly. Instruments such as eco-labels and environmental product standards should be strengthened and the environmental performance of products should be considered in public procurement.

4.3. General measures to support eco-design in SMEs

4.3.1. Four functions at the European level

To ensure the effectiveness of product-related environmental policy at the European level also for SMEs, additional specific measures are adviceable to (1) ensure the visibility of environmental policy and market signals to SMEs, (2) benchmark best practice in technical eco-design support, (3) supply technical eco-design information, and (4) enhance the feed-

back from SMEs in the policy-making process. The core element of such measures is the exchange of information and know-how. Beside public administration it should involve intermediaries, branch organisations and SME associations as well as eco-design knowledge centres and research institutes. It is advisable to integrate all four functions within into a single initiative so that it can constitute one of a limited number of product-related instruments that is easy to communicate. More specifically the suggested functions have the following character:

1. Improve the visibility of current and future market opportunities for environmentally friendly products

Adequate information about market opportunities plays a key role to make eco-design happen. In addition to closing possible gaps in the visibility of current market opportunities, it is especially important that SMEs can foresee whether developing environmentally friendly products can give them a competitive advantage in the medium-term. Evolving regulatory frameworks should just be as visible as already existing regulation. SMEs should be informed about the likely developments of the relevant public policy areas on the different levels (European, national, regional, local). Providing to them information related to product-related environmental policy is especially important in this sense.

While the established SME support channels such as intermediaries, branch organisation and SME associations are in the best position to convey this information to the SMEs, it would be the role of the public sector at the European and other levels to actively stimulate the information flow by feeding into these channels information about the frame-conditions that constitute a market for environmentally sound products.

Basically, such information would cover three areas through which a demand for environmentally friendly products is created: a) European demand-side environmental policy; b) demand-side environmental policy at other levels; c) other socio-economic drivers.

2. Modulate and transfer best practice of eco-design dissemination

The transfer has to be achieved between intermediaries with diverging degrees of experience and competence in eco-design dissemination. In order to really address the majority of SMEs active in product development, it is important to involve those intermediaries that are well established in mainstream SME support and not only those actors that restrict themselves primarily to the environmental playing ground. At the same time best dissemination practice should be developed further. Given strengthened incentives by IPP, the main focus of measures for SMEs can be directed to technical and informative support.

3. Supply technical eco-design information

Intermediaries need different kinds of technical information. This includes methodological eco-design know-how, compilations of successful cases of eco-design, data and methodology for evaluating the ecological soundness of products. Much of this information exists in the form of eco-design manuals, as evaluation tools etc. Language barriers and a lack of intra- and international networking have so far, however, prevented the optimal distribution of data and know-how, which lead to a situation where on one hand the wheel keeps being invented again and again and on the other hand available information has not been conferred to where it would have been needed. The most straightforward way to supply such technical information is direct communication from intermediary to intermediary or between intermediaries and eco-design knowledge centres. A European initiative could catalyse such information exchange. Furthermore it is advisable to finance the development of more sector-specific tools and methods.

4. Feed-back function

A standing feed-back mechanism is needed that informs policy-makers at all levels continuously about the effectiveness of supply- and demand-side instruments in making the products of SMEs more environmentally friendly and about the side-effects of these measures. This allows to adjust policies and to better balance and co-ordinate between individual measures. Involving branch organisations, specific SME associations and other intermediaries in product panels can be an important element of such feed-back, and would also contribute to making markets for environmentally friendly products visible (function 1). Another element is to use evaluations by independent institutes.

4.3.2. Integration of the functions and sectoral focus

It is advisable to integrate all four functions within a single initiative in order not to overload the portfolio of product-related environmental policy instruments. This would ensure sufficient weight and visibility of the initiative.

To be effective, such an initiative needs to consider the particularities of sectors and should concentrate on those industries where eco-design is regarded as especially important and SMEs play a key role. The identification of such priority industries as well as of key groups of firms that are the main actors in product development is an important next step for product-related environmental policy

Finally, it is important that SME measures within European product-related environmental policy are coordinated with other Community initiatives related to SMEs, especially those dedicated to innovation or exchange of best practice.

4.3.3. Streamlining preventive environmental policy

An important opportunity offered by amplified attention to product-oriented environmental policy or IPP is to streamline the variety of different instruments aiming at integrated

environmental protection (IEP). In some of the most advanced countries (such as the Netherlands), IEP activities are too disperse at present and SMEs are confronted with several initiatives. Streamlining will therefore be of crucial importance. It will be necessary to present instruments such as eco-design initiatives, EMAS, product-oriented environmental management systems (POEMS), eco-labels, LCAs, etc., in a harmonised and straightforward way. At the same time, one has to be careful to establish well-defined relations between instruments directly related to products and other instruments, yielding a lean overall system of environmental policy.

4.3.4. The shift from selling goods to selling services

While this report focuses on the development of environmentally friendly products, it is important to be aware that products are only one focus for the improvement of environmental performance or eco-efficiency. Increasingly, products are being sold as part of a service, which may require new eco-design approaches that aim to find environmentally friendly solutions for the entire system of activities that constitutes the service. Product design is only one of several elements in such a context. The shift to selling services that are delivered through products instead of selling merely the products presents important eco-efficiency and business opportunities. A number of current research activities analyse this trend, and promise interesting results for business and public policy-makers ([6]).

4.4. Cluster-specific findings

4.4.1. Cluster 1: Countries with support structures that already include eco-design

In order to capitalise on the potential competitive advantages of a relatively advanced state of eco-design dissemination, the efforts in this cluster need to be continued and even intensified. Non-European countries are catching up and Japan, in particular, is developing strategic initiatives that promise to challenge the good position of advanced European countries.

- Current best practice in eco-design stimulation can be developed further if it is focused and embedded in a long-term strategy. A European IPP should provide such a strategic dimension and guarantee concentrated efforts in those key sectors that actually determine the environmental performance of the market-wide product mix. It should also consider that currently SMEs are confronted with quite a large number of rather dispersed eco-design programmes. A reduced number of programmes with increased visibility promises an improved response from SMEs.

- Eco-design-related know-how is concentrated at universities and other knowledge centres, while SME support can often be provided more effectively by other types of institutions (e.g. through the local entities of branch organisations). There is the need for mechanisms to transfer this know-how on a sector-specific level to those that give direct support to SMEs, in other words to train the trainers.

6 See, for example, the research project 'Creating eco-efficient producer services', financed by the European Commission (Research DG), which is due to be concluded by the end of 2000.

- The survival rate of eco-design activities in SMEs after initial stimulation can probably be increased by integrating eco-design in routine management procedures by considering it in the EMAS or ISO14000 frameworks.

- There is a number of advanced eco-design dissemination activities in different programmes with relatively little networking. The exchange of knowledge and experience between countries should therefore be stimulated. For example, there is the need to pool and disseminate cases of successful eco-design, which could be used as an effective means of reaching SMEs.

4.4.2. Cluster 2: Countries that have adequate general SME support structures

The key strategy to close the gap between cluster 1 and cluster 2 countries is straightforward. Those actors in cluster 2 countries that have the potential to set up effective eco-design programmes should be provided with the necessary information and motivation. Such potential actors are experienced initiators of other types of IEP initiatives in these countries as well as mainstream branch organisations and other experienced intermediaries. Special attention should be paid to policy-makers in Member States, who have an important role in launching and coordinating national efforts related to eco-design. A European IPP could obviously play a decisive role in this sense.

Lessons learnt in cluster 1 countries should clearly be translated into optimised approaches for the second cluster, taking into account the political and cultural particularities of different countries and regions. What has been said above about strategic and targeted efforts, know-how transfer, networking and integration of eco-design into environmental management systems also applies to cluster 2.

4.4.3. Cluster 3: Countries that have limited SME support structures

The main reasons why eco-design has still little importance in this group of countries is that the necessary policy priorities are missing to a large extent and that it comprises the poorer countries of the Union, in which financial funds for IEP in general are very limited on a national basis. At the same time, institutions exist in some of these countries that could develop eco-design/SME initiatives relatively quickly if the necessary financial and human resources were made available. Again, a European IPP can play a key role in engaging national, regional and local policy-makers.

A special role can be identified in this cluster of countries for the European Structural Funds and our analysis confirms what the communication of the Commission entitled ‘The Structural Funds and their coordination with the Cohesion Fund — Guidelines for programmes in the period 2000–06’, published on 1 July 1999, states about product policy. This communication stresses that the implementation of a sustainable product policy should be supported from the Funds. It establishes environment as an area with particular potential to

contribute to the competitiveness of enterprises, in particular SMEs. The communication states that specific action should include preventive approaches and that in this context the Funds could support the development and marketing of innovative environmentally sound products and services.

Involving the national and regional authorities that are preparing the Member States' programming strategies for Objectives 1, 2 and 3 of the Structural Funds in IPP would give eco-design a strong profile in the programmes supported by the Funds.

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Internet resources

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http://www.plato.be/