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Evaluating product panels

Evaluating product panels An evaluation made
in 2001 by Oxford Research A/S

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The reports are, however, published because the Danish EPA finds that the studies represent a valuable contribution to the debate on environmental policy in Denmark.

Foreword

In 1998, the Danish Environmental Protection Agency launched an experiment to set up three product panels. Using the product life cycle approach, the Agency selected a number of market players in the areas of electronics, textiles and goods transport to sit on the individual product panels. The aim of the product panels was to increase the involvement of and cooperation between players as a tool in the Product-Oriented Environmental Initiative.

Generally, the product panels operate within an expansive framework as long as their work meets the overall objective of the Product-Oriented Environmental Initiative to promote the development and sale of relatively cleaner products. The processes and results of the three product panels differ greatly, thus providing a broad and balanced basis of experience for evaluating the panels.

Development-oriented, the evaluation report focuses on giving a critical assessment of the current product panel concept. It is divided into three sections:

- an assessment of whether work undertaken by the three product panels falls within the framework originally set out for product panel activities
- an assessment of product panels as a Product-Oriented Environmental Initiative tool
- a critical analysis of the product panel concept to be used as a basis for recommending adjustments to the concept

A team of analysts from Oxford Research A/S conducted the evaluation in the period from June to October 2001. The team was headed by Leif Jakobsen, team leader, with the help of Palle Ellemann Knudsen, analyst, Michael Juhler Jensen, chief analyst, and Anne Chabert, researcher. Kim Møller, general manager, also participated in the project as a collaborative partner. The Danish EPA regularly followed the process of preparing this evaluation report, but Oxford Research A/S has sole responsibility for its conclusions and recommendations.

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1 Summary

In 1998, the Danish EPA launched an experiment in introducing product panels to strengthen the involvement of market players in the Product-Oriented Environmental Initiative. The first three product panels were set up in the areas of electronics, goods transport and textiles. These three panels and the concept behind them have now been evaluated to provide a basis for reassessing the strategy underlying the product panels. The evaluation report is divided into the three main sections, respectively assessing whether the product panels meet the formal framework requirements set out for their activities; whether the product panels are a useful tool in the Product-Oriented Environmental Initiative; and whether adjustments to the concept are needed.

1.1 Do the product panels meet the formal framework requirements set out for their activities?

The product panels have been bound by very few formal framework requirements since they are considered an experiment having to define its own framework. The three product panels have developed differently and at different speeds, partly as a result of the widely differing conditions under which they operate.

The Danish Product Panel for Electronics has so far worked hard to build the foundation of knowledge, tools and competence needed to promote the development and sale of cleaner electronics products. The panel has spotlighted technology on the supply side, having completed a number of projects in this area. At the same time, the electronics panel has attached importance to the process of disseminating knowledge, especially through a website developed by the panel itself. To a wide extent, the electronics panel meets the framework requirements and intentions specified for the product panels. Currently, the panel's primary challenge is to promote the sale of cleaner electronics products, thus helping to create an actual market for such products. This market does not exist at the moment.

So far, the Danish Product Panel for Goods Transport has focused on building knowledge, methods and competence at the development stage. The results of this work are only just emerging in the form of calculation tools for international transport, green purchasing guidelines, etc. To date, the goods transport panel has given knowledge dissemination a low priority, precisely because there are few results to disseminate as yet. As to its formal framework, the panel has failed to use the action plans adequately as management tools and has published no progress reports on its work. The product life cycle approach has proved difficult to reflect in the panel's composition, and the question is whether its current composition represents all significant market players in the goods transport industry.

The Danish Product Panel for Textiles can present the most evident results on the supply side of the overall objective to promote the development and sale of cleaner products. Supported by the Environmental Competence

Scheme, the panel has helped develop and market a range of eco-labelled textiles. The textiles panel has been able to focus widely on the supply side because the textiles industry already had a solid foundation of environmental knowledge, tools and competence at the time of the panel's inception. The textiles panel appears to meet all formal framework requirements, even though not all members of the panel have substantial technical experience.

1.2 Are the product panels a useful tool in the Product-Oriented Environmental Initiative?

In several areas, the product panels contribute new elements to the Product-Oriented Environmental Initiative. All three product panels have helped foster new and cross-sectoral forums for dialogue in areas where networks and work groups of this kind have not previously existed. The panel members find that work undertaken by the individual product panels has helped put the development and sale of cleaner products on the agenda in all three industries.

The involvement of and cooperation between market players, including the product panels, have – in a sense – become a third tool in the Product-Oriented Environmental Initiative, supporting and supplementing the two traditional tools: regulation and economic measures. The product panels seem to be a relevant and useful tool that can help:

- strengthening interaction between markets and environmental authorities
- strengthening the implementation of the Product-Oriented Environmental Initiative
- increasing market self-regulation
- raising awareness of the product life cycle approach

1.3 Does the product panel concept need adjustment?

Product panels are a good idea. Involving market players in the Product-Oriented Environmental Initiative more than is currently the case is a positive development. Product panels can be important elements in helping ensure quick and effective implementation of the Product-Oriented Environmental Initiative, which in turn may give Denmark a competitive edge in a market for cleaner products.

There are lessons to be learnt from all three product panels evaluated in this report. Generally, adjustments are needed to “streamline” the concept, thus reducing the uncertainty surrounding objectives, framework requirements, obligations, etc. At the same time, experience can form the basis for establishing a panel framework that supports a better and more constructive work process.

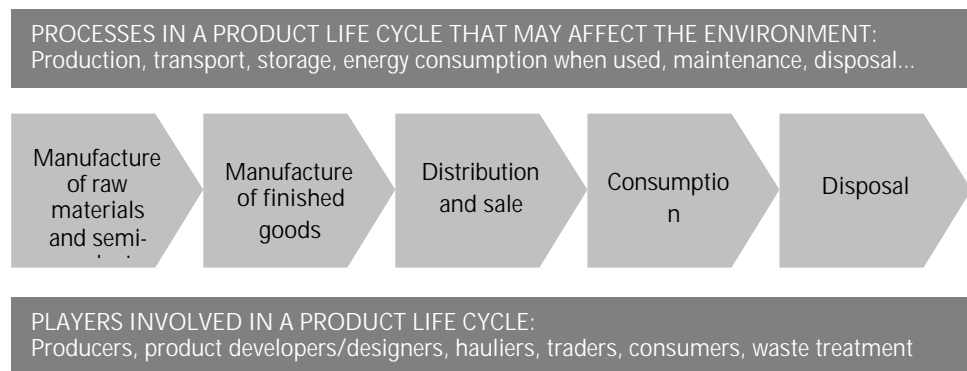
The following table summarises the recommendations for adjusting the product panel concept:

| Table 5.1: Recommendations for product panel concept adjustments |
|---|
| General recommendations |
| <ul style="list-style-type: none"> • The Danish EPA should continue using product panels as a tool in the Product-Oriented Environmental Initiative. • The concept should be streamlined to reduce doubts about objectives and framework requirements. |
| Functions |
| <ul style="list-style-type: none"> • Efforts should be made to maintain the overall objective of promoting the development and sale of cleaner products and testing instruments in the Product-Oriented Environmental Initiative. • It should be emphasised that special importance must be attached to implementation. • Product panels are the link between environmental authorities and markets (focus on knowledge dissemination). • Product panels should not be used for consultation regarding the introduction of new legislation. |
| Composition |
| <ul style="list-style-type: none"> • The product life cycle principle should be maintained as a fundamental criterion for the composition of a product panel. • A product area analysis should be performed before any strategic selection of panel members is made. • Focus on front-runner companies and other key market players. • Focus on panel members' power of decision. |
| Role of the Danish EPA |
| <ul style="list-style-type: none"> • Only one Danish EPA representative should sit on each product panel. • The Danish EPA should act as a link and a technical guarantor in each panel. |
| Chairman and secretary |
| <ul style="list-style-type: none"> • Performing the chairmanship and secretarial duties should be two separate functions. • The chairman should be remunerated for his or her tasks and duties. • The secretary should have a neutral background. |
| Action plan |
| <ul style="list-style-type: none"> • An action plan must contain a clear objective to identify how and when to develop a market for cleaner products. • An action plan should be supplemented with an activity plan and a strategy for disseminating knowledge. |
| Knowledge dissemination |
| <ul style="list-style-type: none"> • The product panels should use an institutionalised form of knowledge dissemination (knowledge centre, website, etc.). • The Danish EPA should support the product panels' use of the Internet for disseminating knowledge. |
| Organisation |
| <ul style="list-style-type: none"> • The product panels should consider organising work groups for technical and detailed discussions of well-defined issues/projects. |
| Funding |
| <ul style="list-style-type: none"> • The operating budget should be adjusted to include remuneration to the chairman and financial support for Internet use. • Remunerating panel members for their work seems unnecessary. |

2 Introduction to product panels

In 1998, the Danish EPA launched an experiment in introducing product panels to strengthen the involvement of market players in the Product-Oriented Environmental Initiative. The idea of establishing product panels was based on the product life cycle approach, a cornerstone of the Product-Oriented Environmental Initiative. This approach is a strategic concept for organising Denmark's environmental initiatives. The concept springs from a need to develop an overall environmental initiative focusing on all relevant elements of product and material life cycles. In other words, the environmental impacts of products are seen from a product life cycle perspective, as shown in figure 2.1.

Figure 2.1: Environmental impacts in a product life cycle



The aim of the product panels is to involve the various players found in a product life cycle in a binding cooperation covering a specific product area.

A discussion paper published by the Danish EPA in 1996, "En styrket produktorienteret miljøindsats" (Strengthening the Product-Oriented Environmental Initiative), was the first to propose that product panels be established. According to the subsequent report from 1998 on the Product-Oriented Environmental Initiative, consultants supported and showed an interest in the proposal to establish product panels. Therefore, the Danish EPA decided to set up the first three product panels in the areas of electronics, goods transport and textiles.

The Danish EPA selected the electronics, goods transport and textiles industries as pilot areas because these areas still stood to achieve considerable environmental improvements. Moreover, the selection of these three pilot areas would give the parties involved an opportunity to test different ways of meeting the overall framework requirements, thus providing a solid basis for gaining experience for future product panels. The electronics industry was considered a complex product area, one of its primary challenges being the unusually high level of internationalism coming from an industry boasting very high import and export rates. In part, the textiles industry was chosen because a number of projects in this area had already provided a basis of experience, and a few companies were also in the process of developing more environment-friendly textiles. The goods transport industry was selected because the Danish EPA wanted to gain product initiative experience in the

field of a service industry and because goods transport contributed substantially to environmental impacts, especially through CO₂ emissions, air pollution and noise.

2.1 Product panel framework

Because product panels, in organisational structure and form, present a new approach in the Product-Oriented Environmental Initiative, setting out the framework has been a development task of the Danish EPA. The Agency regards product panels as an experiment to be launched with a relatively broad framework, so as not to limit its scope for development already from the start.

However, the parties involved found it important to start out with a clear framework for product panel activities. To this end, in June 1998, the Danish EPA prepared a report describing product panel framework requirements, "Udkast til funktionsbeskrivelse for Produktpaneller" (Draft functional description of product panels), and also drew up a delegation memorandum for each of the three product panels in the respective areas of electronics, goods transport and textiles.

A major problem in determining the framework has been to ensure consistency between product panel work and the objectives of the Product-Oriented Environmental Initiative, while also securing the product panels' independence from the Danish EPA. Generally, the Agency does not want product panels to be regarded as bodies operating under the auspices of the Agency. The product panels are meant to have their own "lives", thus creating a special kind of dynamics in the cooperation between the various market players. Officially, the product panels are consulting committees.

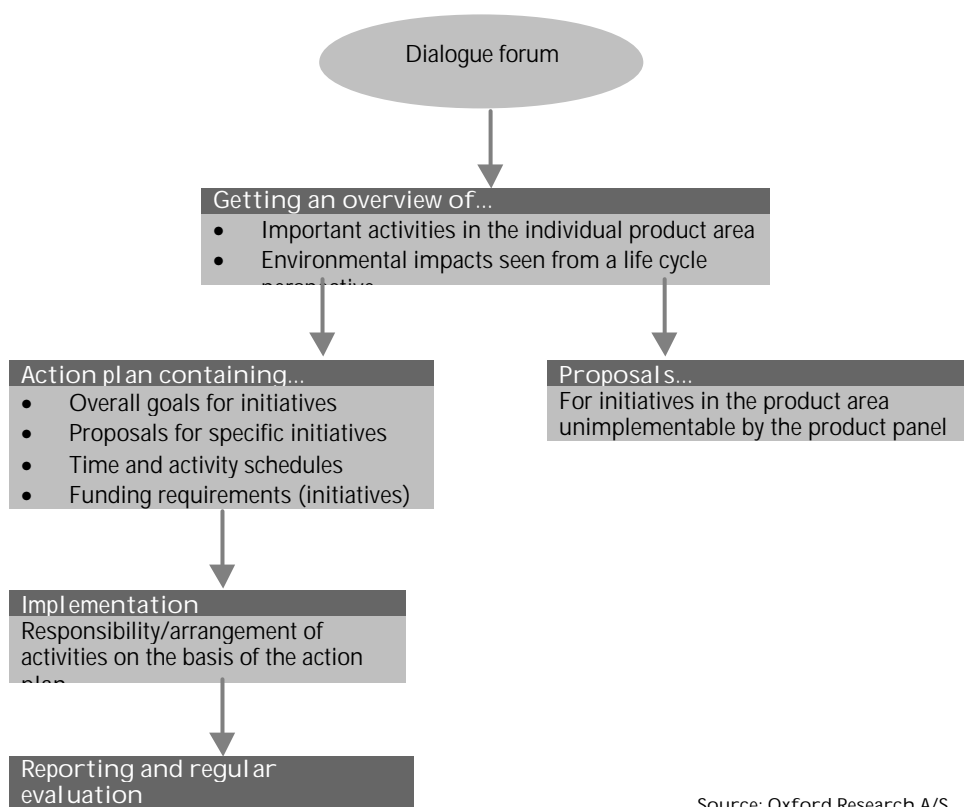
2.1.1 Objective

According to the Danish EPA's report from June 1998, the overall objective of establishing product panels is to *promote the development and sale of relatively cleaner products in these product areas and to test and demonstrate a number of instruments in the Product-Oriented Environmental Initiative.*¹ The first part of the overall objective relates to the *development* of cleaner products and thus aims at initiatives on the supply side, targeted at product developers, designers and producers. *Promoting the sale of cleaner products* aims at creating a market for environment-friendly products – marketing and sale on the supply side and demand for environment-friendly products on the consumer side (retail consumers, public-sector consumers and specialists). The third element of the overall objective suggests that product panels test and demonstrate some of the instruments used in the Product-Oriented Environmental Initiative. These include market player involvement, eco-labels, environmental declarations and information.

In its functional description, the Danish EPA also sets out a number of specific objectives for establishing product panels. Figure 2.2 outlines these objectives and expectations for related activities.

¹ Danish EPA: "Udkast til funktionsbeskrivelse for Produktpaneller", 1998, p. 2.

Figure 2.2: Specific objectives of establishing product panels



One specific objective of establishing product panels is to create a forum for dialogue between the key players in a product area. To create a basis for drawing up action plans for the individual areas, the Danish EPA expects the product panels to prepare an overview listing all important environmental impacts as seen from a life cycle perspective for products in the product area and listing all important activities relating to the product area. The overview of important activities is to be updated on a regular basis.

An action plan must contain the following four elements: overall goals for initiatives, proposals for specific initiatives, time and activity schedules as well as identification of the need for additional funds to implement such initiatives. In other respects, the product panels are free to make proposals contributing to the fulfilment of the overall objective. Within the given area, the product panels may also draw up proposals for initiatives unimplementable by themselves. These could be proposals for initiatives to be implemented by public authorities.

The product panels are under an obligation to evaluate their initiatives regularly through annual progress reports. Furthermore, the panels must help communicate the results of initiatives to the players in the product area concerned.

2.1.2 Composition

As far as the composition of product panels goes, the functional description points out that *a product panel should represent all players exerting substantial influence on the production, sale, consumption and disposal of the products in a*

given product area. Moreover, the panel members should have independent power of decision and possess a substantial amount of technical experience in environmental issues.

At the establishment of a product panel, members are appointed in a dialogue between the Danish EPA and the chairman of the panel in question. All product panel members are appointed for a two-year period.

2.1.3 Chairman and secretary

The Danish EPA appoints the chairman and the secretary. A non-central government person is chosen as chairman, and chairmanship duties are unpaid. A person with specialist knowledge is appointed as panel secretary, either from the Danish EPA or from a relevant knowledge centre. Specific secretarial duties in connection with product panel activities are paid as long as the product panel remains within its operating budget. For more information, see the Funding section.

2.1.4 Role of the Danish EPA in the product panel

The functional description of the product panels describes the role of the Danish EPA as: *helping to organise cooperation between players (acting as a catalyst), contributing Danish EPA experience in promoting cleaner technology in the broad sense of the word, and having the responsibility for legislative and environmental-policy framework conditions in the area in question.* This means that the Danish EPA is responsible for two active tasks as catalyst and technical partner and one observation task aimed at preventing product panel initiatives from falling outside the scope of legislation and the general guidelines of environmental policy. Furthermore, the Danish EPA regards its own participation in a product panel as equivalent to that of the other members.

Through their action plans, the product panels can propose the launch of new initiatives, but the Danish EPA, in its capacity as secretariat for the Danish Environmental Council for Cleaner Products, decides which initiatives and projects are to be recommended for funding under the Programme for Cleaner Products, etc. (see the Funding section below).

2.1.5 Funding

The product panels have an operating budget under the Programme for Cleaner Products, etc., to cover their expenses for specific secretarial duties, holding of meetings and preparation of progress reports and draft action plans. The operating budget also allocates funds for technical assistance, reports, etc. The annual operating budget of each product panel is about DKK 500,000.00.

For the three product areas, the Environmental Council for Cleaner Products earmarks an amount in its annual priority plans for projects in specific product areas and for industrial initiatives. In 1999, this amount accounted for 15 per cent of the entire programme's total limit. This percentage has since increased, meaning that projects in specific product areas and industrial initiatives in 2001 accounted for 21 per cent of the programme's total limit. It should be pointed out that another product area – building and construction – was added to the programme in 2000, as were industrial initiatives in the manufacturing industries under the specific product areas. However, the

percentages confirm that the specific product areas play a prominent role in the Product-Oriented Environmental Initiative.

Through action plans submitted to the Danish EPA, the product panels can recommend that new activities and projects be launched. In addition, the product panels can choose to finance their initiatives and projects through other funds such as their own funds. Table 2.1 shows funds under the Programme for Cleaner Products, etc., spent in the specific product areas.

| | 1999 | 2000 | 2001 |
|---|-----------|-------------|-------------|
| Total use of funds for specific product areas | DKK 13.2m | DKK 8.6m * | DKK 25.4m * |
| - electronics area | DKK 3.3m | DKK 1.9m | DKK 2.2m |
| - textiles area | DKK 5.9m | DKK 0.5m ** | DKK 2.2m |
| - goods transport area | DKK 4m | DKK 1.7m | DKK 1.8m |

* Note: Compared to 1999, the specific product areas in 2000 and 2001 included the building and construction area as well as industrial initiatives in the manufacturing industries in addition to the electronics, goods transport and textiles areas.
 ** Note: Funds were transferred from this area to a campaign aimed at promoting the use of eco-labels (the textiles area was an important element in this connection).
 Sources: Danish EPA: "Prioritetsplaner for Program for renere produkter m.v." (Priority plans for programme for cleaner products, etc.). 1999, 2000 and 2001.

The table shows that, during their first full year of existence in 1999, the product panels occasioned the launch of many new projects and initiatives in the three product areas. Markedly fewer projects and initiatives were started in 2000, however, one reason being that several of the projects for which funds were allocated in 1999 continued into 2000. Moreover, funds were transferred from the specific product areas to finance a large-scale campaign for eco-labels, where the textiles area was an important element.

2.2 Evaluation purpose

The three product panels (electronics, goods transport and textiles) have now been pilot product areas for more than two years. Consequently, it is now time to collect experience and knowledge that will help decide where the product panel concept requires adjustment and to assess the possibilities and limitations of the concept as a new tool for promoting the Product-Oriented Environmental Initiative.

In 2000, a fourth product panel was established in the building and construction area. This evaluation report does not include this product panel since it has only existed for a brief period of time.

The evaluation report is divided into three sections, respectively aiming at taking stock, analysing the product panels in the Product-Oriented Environmental Initiative and making recommendations on the basis of a methodical discussion of the product panel concept.

The **first** section, chapter 3, presents the product panels as case stories. At the end, the chapter assesses whether the product panels live up to the formal requirements and objectives set out by the Danish EPA in the functional description.

The **second** section, chapter 4, deals with the product panels as tools in the Product-Oriented Environmental Initiative. The chapter delves into the innovative nature of the product panels and their interaction with other elements in the Programme for Cleaner Products, etc.

The **third** section, chapter 5, contains a cross-cutting, methodical discussion of the product panel concept. On the basis of this discussion, the chapter proposes a number of recommendations concerning the future of the product panels.

2.3 Evaluation method

This report relies mainly on qualitative methods to evaluate the product panels as the evaluation largely focuses on the working methods of the panels as well as organisational and procedural problems. At the same time, the number of panel members is relatively low, which makes it relevant to use qualitative rather than quantitative methods such as extensive questionnaire studies.

2.3.1 Collecting data

The product panel analysis started with desk-based research of existing written material regarding:

- the background and scope of the product panels
- the work undertaken by the individual product panels, such as meeting minutes, member lists, action plans, progress reports, etc.
- the role of the product panels in the overall environmental initiatives for cleaner products
- the Programme for Cleaner Products, etc.

Furthermore, a total of twenty personal interviews were held with product panel members and representatives of the Danish EPA and the Environmental Council for Cleaner Products. The interviews were conducted on the basis of a structured questionnaire guide, and specific panel members were selected for the purpose of covering a wide range of the different interests represented in the product panels.

In addition to the twenty personal interviews, the evaluation team also conducted an e-mail survey among the remaining panel members. This survey focused on ten core questions pertaining to the evaluation of the product panels. Appendix A contains a list of all persons interviewed.

2.3.2 Quality assurance

A reference group consisting of representatives of the Danish EPA was set up to follow the process of evaluating the product panels. During the evaluation process, the reference group had close contact with the project team at Oxford Research A/S.

At the end of the evaluation, a round-table discussion was held with a number of representatives from the three product panels, the Danish EPA and the Environmental Council for Cleaner Products. Aimed at ensuring the quality of the evaluation, this round-table discussion afforded the project members an opportunity to remove any factual uncertainty and to test the conclusions and recommendations made in the evaluation report.

3 Product panels – each with its own story

This chapter presents the three product panels in the areas of electronics, goods transport and textiles. Because of substantial differences in work processes and results, the product panels are described separately. The presentation of each product panel is based on meeting minutes and interviews held with panel members. The aim of this chapter is to give readers a fundamental insight into the three product panels and their work. Chapter 4 contains a cross-cutting analysis of the product panel concept and its individual elements.

3.1 The Product Panel for Electronics

The Danish electronics industry operates under strong international competition with a global flow of goods. Danish electronics producers thus export about 90 per cent of their production, and – vice versa – about 90 per cent of all electronics products sold in the Danish market are imported. At the same time, the market for electronics products is also divided into two submarkets of almost equal size: a business-to-business market (sale to other companies or public-sector customers) and a business-to-consumer market (sale to retail consumers).

The industry is growing in step with the rising consumption of electronics products. Producing electronics products generally entails heavy development costs. Many electronics products, particularly IT equipment, rapidly become obsolete both commercially and technologically – often long before they lose their durability. This increases the volume of scrapped electronics products, which is considered an important environmental problem as scrapped electronics products are chiefly disposed of together with household refuse through incineration and depositing.

Reusing electronics products is difficult since they are typically highly complex products consisting of a variety of materials. Moreover, many electronics products contain a number of materials – brominated flame retardants and PVC, for example – that produce adverse environmental impacts when disposed of/incinerated. The high complexity of electronics products also makes it difficult to assess their full effect on the environment.

In addition to their disposal, the principal environmental life cycle impacts of electronics products are considered to originate from their use. For example, consumer electronics products have large standby power consumption, and the production of electricity for such consumption exerts considerable pressure on the environment. For some electronics products, energy consumption during use accounts for as much as 95 per cent of total life-cycle energy consumption.²

² Danish EPA: “Renere teknologi i elektronikbranchen”, no. 504, 1999.

Eco-labels and environmental declarations are rarely used on electronics products in Denmark. A study on green electronics in public procurement (recommended by the electronics panel) from 2001 revealed that many public procurement officers recognised the Green Swan logo from other contexts; but the only electronics products to bear the Green Swan logo are photocopiers. On the other hand, relatively few public procurement officers are familiar with the “Blauer Engel” (a German eco-label), the environmental declarations of the Danish IT Industry Association and the environmental guidelines issued by the Danish EPA. The only eco-label familiar to public procurement officers and used for a number of electronics products is the US energy-saving label: Energy Star.³ The public sector buys office electronics and IT equipment to the tune of about DKK 3.2 billion a year.

According to the study on green electronics in public procurement, suppliers believe that the price of obtaining a Green Swan logo licence is too high and they also find application processing time too long. Moreover, the suppliers think that the market for eco-labelled electronics is too small.

The study concludes that the use of eco-labels in the electronics area will have to be promoted in the long run. Small public procurement firms and retail consumers, in particular, have neither the time nor sufficient knowledge to make a fair assessment of the environmental impacts of different electronics products unless eco-labels are used.

3.1.1 Composition and organisation

The electronics panel has eighteen members, including representatives of electronics companies, trade associations, consumer and environmental organisations as well as public institutions (appendix B lists all members of the electronics panel). The interviews with panel members indicate that this number may be slightly too high. On the other hand, the distribution of interests seems to balance. One person interviewed emphasised the good balance between professionalism and “feeling”.

Generally, the panel members represent no independent power of decision on behalf of the individual workplaces. This limits the type of decisions that the product panel can reach when it meets. The panel finds it important to reach consensus in situations where the members’ lack of decision-making power gives little room for negotiation and compromise.

The electronics panel has discussed whether its members act as individuals or represent the individual workplaces. The Danish EPA does not see product panel participation as binding the companies/organisations, but the members themselves find it impossible to separate product panel work from their day-to-day work. Product panel members meet during working hours, meaning that companies/organisations are investing time and money as well.

In the electronics panel, the same person is both the chairman and the secretary.

The product panel members interviewed generally commend the Danish EPA on its handling of a difficult role in the panel. The persons interviewed find it positive that Danish EPA representatives have remained relatively neutral during panel discussions, while also providing adequate information about

³ Danish EPA: “Grøn elektronik i offentlige indkøb”, 2001.

political developments in this area. Although presumably the Danish EPA has had no wish to be a controlling part of the electronics panel, the course of events suggests that the Danish EPA, despite its neutral starting point, has taken on a fairly leading role. This is probably due to a number of factors:

- Two Danish EPA representatives sit on the panel.
- The Danish EPA is considered the “point of access” to funding, and, due in part to its administrative requirements, the Agency heads any projects funded under the Programme for Cleaner Products, etc.
- The Danish EPA was extraordinarily involved in managing the electronics panel during a transition period between the first and second chairmanship.
- The panel members have been unsure of their own obligations in relation to the panel and their workplaces and also of the Danish EPA’s role in the panel.

3.1.2 Action plan

The electronics panel got off to a difficult start, frequently discussing its purposes and objectives. However, the product panel relatively quickly drew up an action plan, which several of the panel members interviewed considered very ambitious. The 1999 action plan listed a number of activities addressing communication with external players and panel work marketing. At the request of the electronics panel, initiatives were taken in 1999:

- to launch a project to revise guidelines, collect life-cycle-based environmental data, present environmental data in a clear way and draw up updating guidelines;
- to hold a conference on environmental characteristics for design engineers and teachers at engineering colleges;
- to give an account of public procurement; and
- to study the technical possibilities of designing a very simple environmental declaration for households.

A contemplated study on alternatives to brominated flame retardants in electronics products was not implemented because of a lack of applications. Since then, this problem has been reconsidered through a large-scale initiative to substitute unnecessary chemicals.

At the turn of 1999/2000, the electronics panel was facing a crisis, with some panel members believing that the panel had moved in a direction unsupported by the panel members’ workplaces. The first chairman also decided to resign and leave the panel, and the Danish EPA had to manage the panel until a new chairman had been found.

The Danish EPA chose an outside person to chair the panel, the new chairman’s first job being to reach consensus about a new action plan. The panel found it important to reduce the number of ongoing projects and initiatives and lowered its public profile in order to create a more balanced and consensus-seeking dialogue inside the panel.

The new action plan aims – to a higher degree – to include both short-term and long-term perspectives, meaning that it is generally intended to apply until 2003. According to “Handlingsplan 2000-2003” (Action plan 2000-2003), the overall objective of the electronics panel is to:

generate activities capable of influencing attitude and behaviour, thus allowing the electronics area to reduce pressures on the environment despite the increasing use of electronics in society.

The electronics panel has chosen not to delimit its product area and thus, in theory, takes all electric(al) and electronics products into consideration. In making this choice, the electronics panel has not followed the Danish EPA's recommendation that a product panel delimit its product area.

In its thematic delimitation, the electronics panel bases its activities on a chain of values consisting of three links: production, sale and disposal. Against this background, the electronics panel has decided to focus on two vertical thematic pillars (technology and sale) as well as two cross-cutting activities (website and international relations). Table 3.1 outlines the electronics panel's activities for 2000 and 2001 in relation to these pillars and cross-cutting activities:

| Table 3.1: Electronics panel's activities for 2000-2001 | |
|---|---|
| Technology | Sale |
| <u>Environmental assessment of product concepts</u> <i>Pilot projects to test methods for assessing product concepts from an environmental point of view.</i> | <u>Consumers and environmental characteristics of electronics products</u> <i>Informational activities about the environmental characteristics of electronics products and the consequences of their production, use and disposal.</i> |
| <u>Profitability through disposal</u> <i>Information campaign targeted at concept makers about the problems of reusing electronics product materials.</i> | <u>Better tools for sellers and buyers</u> <i>Project on an easy-to-read Internet-based environmental declaration – "the green card".</i> |
| <u>Repairability</u> <i>Analysis of the environmental consequences of extending the lives of electronics products.</i> | <u>Communication to public procurement officers</u> <i>Information campaign aimed at qualifying the opportunities of public procurement officers to perform environmental assessments when they purchase electronics product.</i> |
| <u>Producer liability</u> <i>Pilot projects on the possibilities of and obstacles to producer liability affecting the design of new, environmental electronics.</i> | <u>About scrapped electronics</u> <i>Information and guidelines targeted at local authorities on how to handle scrapped electronics.</i> |
| | <u>Consumer survey</u> <i>Surveys to determine consumers' interest in and opportunities of buying electronics products that are less harmful to the environment.</i> |
| Cross-cutting activities | |
| <u>Electronics panel's website</u> <i>The website serves a dual purpose of marketing the panel's work and being an information source for the large number of interested parties seeking information about electronics and environmental issues.</i> | |
| <u>International standardised LCAs</u> <i>Activities aimed at launching a pan-European project to standardise preconditions for using the LCA model.</i> | |

As appears from the above activity plan, the electronics panel mainly engages in collecting knowledge, developing methods and tools and disseminating information. The panel focuses on encouraging companies to make environmental impact assessments early in the concept and design stages of developing new electronics products, and on studying purchasers' interest in and possibilities of buying environment-friendly electronics. Furthermore, the electronics panel engages in several activities addressing one of the two major environmental problems in the electronics industry: handling scrapped electronics. On the other hand, the electronics panel is not involved in any

activities regarding the energy consumption of electronics products, which is considered to generate the highest environmental impacts in the life cycles of most electronics products.

An area receiving little attention in the action plan is eco-labelling. The panel has no consensus about the use of eco-labels and/or environmental declarations. The electronics panel has launched a consumer survey to qualify a discussion and lay down a future strategy in this area.

The electronics panel focuses on establishing international contacts in the light of the strong internationalisation occurring in the electronics industry and the huge influence that international legislation has on the industry.

3.1.3 Results and communication

No single unifying trade association exists in the electronics industry. For this reason, the panel members interviewed are pleased to see the establishment of a systematised forum for dialogue for the industry, which also serves to create contacts and networks between market players along product life cycles. One of the electronics panel's greatest achievements is that the environment has now really come on the agenda of the electronics industry. Because of its composition, the electronics panel has primarily become a professional/technical dialogue network.

To date, the electronics panel has principally endeavoured to lay a foundation of information by building knowledge, methods and competence in the fields of environmental issues and electronics products. The panel puts particular focus on the supply side and on promoting the development of cleaner electronics products.

The panel has taken a string of initiatives to pinpoint important activities in this product area, especially in the field of environmental impacts as seen from a life cycle perspective. The current 2000-2003 action plan reflects the electronics panel's teething troubles and consensus-seeking line, the overall objective being so broad that no one can disagree with it. Alternatively, the panel focuses on generating results in the individual projects.

The electronics panel widely seems to be involved in implementing activities and projects launched on the basis of action plan recommendations. A progress report and a project article were prepared for 1999, while a project article was drawn up for 2000.

On the consumer side, the panel remains fairly inactive since it believes that it lacks the relevant knowledge or tools (such as eco-labels and/or environmental declarations) to make an information campaign successful. Several panel members find that this area should be given high priority in the near future.

Rather than demonstrating its presence in the debate on environmental policy, the panel has lowered its public profile. The electronics panel's external communication now focuses on marketing its work and disseminating knowledge accumulated through a variety of projects and other activities. The hub of its external communication is a website established and operated by the panel on the basis of its operating budget. The interviews held with the panel members suggest that the electronics industry welcomes having this single point of access to information about environmental issues and

electronics. Furthermore, the trade associations have regularly made an effort to inform their members about the panel's work and results.

The table of the electronics panel's activities for 2000 and 2001 shows that communicating information, including disseminating existing knowledge and results of new projects, accounts for a large share of the panel's work, even though no actual market for environment-friendly electronics products seems to exist in Denmark as yet. A recent study on green electronics in public procurement (2001) revealed that suppliers of electronics products currently see no appreciable demand for products that are less harmful to the environment. In addition, few electronics products bear the Green Swan logo or the EU flower.⁴

3.2 The Product Panel for Textiles

Like the electronics industry, the textiles and clothing industry in Denmark is highly internationalised. About 80 per cent of all textiles manufactured by Danish producers are exported, while approximately 80 per cent of all textiles sold in Denmark are imported. The Danish textiles industry also largely reflects "the international division of labour", meaning that low-paid workers in other countries carry out the most labour-intensive aspects of textiles production. The sewing industry has thus more or less disappeared in Denmark, whereas design and concept development is flourishing.

Recent years have seen further value chain shifts, with an increasing number of shops selling textiles becoming chain retailers. At the same time, a large market for cheap clothing and other textiles has emerged in Denmark, dominated particularly by the large supermarket chains. Demand in the textiles industry differs from that of other industries in that "soft" parameters like fashion trends exert a high degree of influence.

Textiles products pose substantial environmental problems throughout their life cycles. From the production of fibres to spinning, knitting, weaving, wet processing and sewing, textiles go through a large number of energy-absorbing processes typically involving the use of many chemicals, etc., that may have an adverse effect on the environment. Furthermore, the international division of labour in the textiles industry typically means that textiles are transported for thousands of kilometres in the course of their product life cycles.

The mere use of textiles gives rise to considerable environmental problems linked to the consumption of water, detergents and energy for washing, drying and ironing. On the other hand, textiles are reused to a high degree; charity organisations, for example, ship second-hand textiles to third-world countries.

From 1990 to 1997, 30 cleaner technology projects were implemented in the textiles industry under the Danish EPA's Cleaner Technology Subsidy Scheme. This has led to some improvements in production processes, especially in the field of textile wet processing, which accounts for the largest environmental effect during the life cycles of textiles products. Everything considered, the industry has accumulated experience and developed a number of methods and tools that provide a basis for developing and selling cleaner textiles. At the time of the panel's inception, a few companies in the textiles

⁴ Danish EPA: "Grøn elektronik i offentlige indkøb", 2001.

industry had already come a long way in developing environment-friendly textiles.

In the textiles area, eco-label criteria exist for the European eco-label, the EU flower, and the Nordic eco-label, the Green Swan logo, for a number of textiles. Furthermore, the Danish EPA has drawn up environmental guidelines for professional purchasing/procurement officers in respect of several textiles.

So, in many ways, a solid basis of knowledge, tools and competence already seems to exist in the industry. The primary challenge facing the textiles panel is to create a market – supply and demand – for environment-friendly textiles.

3.2.1 Composition and organisation

During the period, the number of members sitting on the textiles panel has averaged 20, including representatives of textiles companies, retailers, trade associations, consumer and environmental organisations, designers, laundries as well as public institutions (appendix C lists all members of the textiles panel). According to several panel members, this number is slightly too high. On the other hand, many panel members find that the broad representation and the high number of “angles” are advantages when it comes to obtaining support from external players.

The composition of the textiles panel is based on the involvement of important market players, particularly in the retail trade. To a wide extent, the panel has managed to involve persons with some power of decision, whereas many of the panel members have no substantial professional experience in environmental issues.

The starting point of the work process has been to reach consensus, and attempts have constantly been made to balance different interests. As one member said: *“That’s why it took two years”*. The composition of the panel seems to have an overweight of commercial interests, but this has not impeded the panel’s work according to some panel members. Several of them even find that the panel’s composition has probably strengthened its dynamics.

The textiles panel has had an independent secretarial function, performed by a consultant from a private consultancy firm. Several of the panel members interviewed point out the advantages of having a neutral person on the panel to take minutes, draw up proposals and mediate in conflicts and discussions that have reached a deadlock.

The members generally commend the way that the Danish EPA handles its role in the panel. The two Danish EPA representatives have remained relatively neutral, and, as the interviews revealed, the textiles panel has not felt itself unduly constricted in its actions by “what is politically impossible”.

In terms of funding, the textiles panel has been relatively dependent on Danish EPA financial support because no panel members have had the time to submit applications for project funds to the Danish Ministry of Economic and Business Affairs/the Danish Agency for Development of Trade and Industry or the EU. However, the textiles industry has independently funded a knowledge centre.

Having fulfilled its primary objective to launch a product range of eco-labelled textiles in early 2001, the textiles panel entered a new phase according to many panel members. In this second phase, the panel has decided to set up work groups to address a number of subareas. Subsequently, the entire panel is to meet a few times a year to revise its action plan and to lay down overall objectives. The individual work groups meet as required. This organisation resembles a board that has set up specific committees.

With its new work group organisation, the textiles panel expects to involve new players in its panel work on a regular basis. Several panel members find it important that new members are added to the panel to ensure its renewal. The work groups can thus “test” the commitment of new members before they are appointed to sit on the panel. In the transition to the second phase, the first panel chairman chose to step down, and another panel member has now taken over the chairmanship.

3.2.2 Action plan

The textiles panel agreed relatively quickly on an action plan aimed at creating specific results and showing what was practically feasible. Consequently, the panel’s main objective was to design/develop, produce, market and sell an environment-friendly product range.

One key issue engendering some panel debate was the choice of eco-label. The panel members agreed that the product range had to be eco-labelled and that using only one eco-label would best serve the marketing objectives and the interests of consumers. Finally, the textiles panel chose the EU flower, which has won more international recognition than the Green Swan logo. At the same time, the EU flower increases the number of European producers and importers placing environmental demands on Asian and East European suppliers.

In 1999, a number of projects were launched at the request of the textiles panel:

- a workshop to involve players/companies in work groups
- a project to coordinate and share knowledge between work groups
- an information plan for the textiles panel
- a workshop for producers
- a project to develop tools targeted at purchasers and designers
- a study of barriers for obtaining eco-labels and the possibilities of redirecting environmental requirements towards suppliers
- a study of the economic aspects of production, purchasing and sale of environment-friendly textiles
- a project to establish a knowledge centre to support product chain players in designing, purchasing, producing and distributing environment-friendly textiles

According to its action plan, the textiles panel pursues an umbrella strategy where all activities supplement one another and are embedded in an information strategy. All activities improve and support the final introduction of an environment-friendly product range in early 2001. Several of these activities started in 1999 and continued into 2000, meaning that no new projects were launched in 2000. On the other hand, the panel made efforts

throughout 2000 to persuade as many textiles producers as possible to use the EU flower.

The textiles panel's objective to introduce a product range of environment-friendly textiles has widely focused on knowledge dissemination. A great many of the panel's activities deal with knowledge dissemination and aim to integrate as many market players as possible for the purpose of introducing an attractive product range of environment-friendly textiles. Probably realising that its members cannot personally perform the key and comprehensive task of supporting these activities, the textiles panel decided to establish a knowledge centre employing one full-time person to handle the task. This knowledge centre is based at TEKØ-Center Danmark and is funded by the Federation of Danish Textile and Clothing, a trade association.

In addition to the introduction of an eco-labelled product range and the eco-labels information campaign, the textiles panel had three overall target areas in 2001 according to the priority plan of the Environmental Council on Cleaner Products:

- communicating knowledge, tools and methods in the areas of textiles and environmental issues
- analysing eco-labelled products' way to the market
- implementing the cleaner products approach in companies

The textiles panel will issue a new action plan in the autumn of 2001.

3.2.3 Results and communication

The textiles panel has done much to promote the development of an actual market for cleaner textiles. As the overall objective of the product panels focuses on the supply side, the panel has concentrated on and tested the eco-labels instrument. The panel has largely used existing instruments and tools, thus emphasising implementation.

The panel members interviewed generally agree that the panel has managed to create a well-functioning and relevant dialogue forum along product life cycles in the textiles industry. Furthermore, the textiles panel meets all other specific objectives for establishing product panels as specified in the functional description. This includes the preparation of two annual evaluation reports for 1999 and 2000.

Several of the panel members point out that the environment has genuinely come on the industry's agenda, partly as a result of the fieldwork activities undertaken by the knowledge centre and the panel secretariat. The knowledge centre also gives the textiles industry easy access to knowledge, tools and advice concerning environmental issues and textiles.

According to one panel member, establishing the panel has really boosted information in the area because the different parties have been able to resolve technically complicated discussions internally in the panel rather than participating in media mudslinging. This makes it easier for consumers to obtain information in this area.

From its start to the introduction of a product range in early 2001, the panel helped increase the number of Danish producers using the EU flower on their

products from one to eleven. A total of about sixteen retail chains and a number of specialty stores are now selling eco-labelled textiles, a number substantially higher than at the panel's start.

When introducing its product range, the panel launched a large-scale information campaign for eco-labels, including textile product eco-labels, under the auspices of the Danish EPA. This campaign succeeded in raising consumer awareness of eco-labels, but many panel members find that the sale of eco-labelled textiles remains unsatisfactory. Several of them believe that it will probably take a long time and a good deal of information/marketing efforts to raise general consumer awareness of environmental issues relating to textiles.

In future, the panel members expect panel work to spread, thus encouraging producers to manufacture more eco-labelled textiles, for example in the areas of fashion and lifestyle textiles. Furthermore, the members find it important to raise the environmental awareness of a broader group of consumers, not only in Denmark but also internationally. According to one panel member, Danish producers using the EU flower will have an edge on other producers if a similar process is initiated in other countries.

3.3 The Product Panel for Goods Transport

Unlike the other two product areas, transporting goods is a service industry involving both production and consumption of services (goods transport). Thus, goods transport does not have the same product life cycles as electronics and textiles products. On the other hand, goods transport is an important element of a product's life cycle in most product areas.

Road-based transport by lorry accounts for about 75 per cent of domestic goods transport in Denmark (involving loading and unloading within Danish borders). Transport by lorry is quicker and more flexible than transport by ship or train. Typically, this means door-to-door transport. But transport by lorry usually puts more pressure on the environment than transport by ship or train.⁵ In its work, the goods transport panel has chosen to focus on lorry transport.

The lorry transport industry is characterised by many small and a handful of large operators. Following the recent liberalisation of the EU transport market, Danish hauliers are facing increasing competition from outside operators. This is one reason why competition in the transport industry has become relatively intense.

The biggest environmental problems involved in lorry transport are CO₂ emissions. Transport-industry CO₂ emissions continue to rise even though the Danish Government set targets in 1996 to reduce the emissions by 25 per cent in the period until 2030. One environmental challenge facing the lorry transport industry is to increase capacity utilisation to allow the same amount of goods to be transported over as few kilometres as possible. A 1996 analysis of the capacity utilisation of domestic transport in Denmark revealed that only 38 per cent of total capacity was used on average.⁶

⁵ Danish EPA: "Renere teknologi inden for godstransport", 1998.

⁶ Danish EPA: "Renere teknologi inden for godstransport", 1998.

From a product life cycle perspective, goods transport can involve producers and production of such transport means as lorries. Even the design of a lorry affects the environmental impacts of transport services, as does the production of lorries.

From 1993 to 1997, the Danish EPA supported five cleaner technology projects in goods transport. The results of these projects in relation to the Product-Oriented Environmental Initiative seem to be limited, however. Transport companies have been involved in the projects to a small degree only, and disseminating information about the projects has had little effect.⁷

3.3.1 Composition and organisation

The goods transport panel numbers thirteen members at present. Several members have resigned during the panel's life, so only one transport company is currently represented in the panel. DSB-Gods originally sat on the panel, but chose to cancel its membership following organisational restructuring. On the other hand, the panel boasts several representatives of the trade associations in the transport area as well as representatives of forwarding agents, the trade unions and a number of public institutions. NGOs are no longer represented in the panel (appendix D lists all members of the goods transport panel). Several of the panel members interviewed said that increasing the number of companies participating in the panel could contribute positively to the panel's work, just as participation by NGOs could give broader access to environmental issues. According to some members, the transport industry would benefit greatly from having providers, purchasers and authorities sit down at the same table.

The same person has performed both the chairmanship and the secretarial duties of the goods transport panel.

The Danish EPA has three representatives in the goods transport panel, which also has representatives from the Danish Road Safety and Transport Agency and the Danish Maritime Authority. According to several panel members, many ministerial representatives have influenced the panel's work. On the one hand, ministries have contributed environmental knowledge and a general insight into the goods transport area. But coordinating panel activities with three different ministries' strategies for goods transport has been difficult. The panel therefore failed to discuss and lay down an action plan for 2000 because the Danish EPA and the Road Safety and Transport Agency announced that they had not agreed on a joint approach in this respect. Subsequently, the 2000 action plan was never reopened for discussion. The Danish Ministry of Transport (the Road Safety and Transport Agency) has set up a goods transport group consisting of different market players, its purpose being to raise awareness of environmental issues in goods transport.

3.3.2 Action plan

According to the members, the work of the goods transport panel has moved rather slowly, with inaction and uncertainty about the aim of the panel being especially prevalent in the first year. Figure 3.1 outlines the target areas, goals and activities of the action plan drawn up for 1999:

Figure 3.1: Goods transport panel's action plan for 1999

⁷ Danish EPA: "Renere teknologi inden for godstransport", 1998.

| | |
|--|--|
| 1. Implementation of existing tools to improve the environmental characteristics of goods transport services | |
| 2001 goals | Establishing an environmental benchmarking system for road transport that measures both environmental characteristics and companies' implementation of tools |
| 1999 activities | <ul style="list-style-type: none"> • Describing a number of good examples of implemented environmental improvements • Communicating results to companies operating in the industry • Developing a benchmarking system for road transport |
| 2. Improvement of purchasers' knowledge of the environmental effects of transporting goods | |
| 2000 goals | Establishing a concept to define the information flow between purchasers and providers of transport services |
| 1999 activities | <ul style="list-style-type: none"> • Implementing activities to provide information about the environmental effects of international transport by railway and sea • Implementing pilot projects to share information between purchasers and providers of transport services for the purpose of developing a concept for such information • Communicating results to the outside world |
| 3. Interaction between purchasers and providers of transport services as an instrument for improving the environmental characteristics of transport services | |
| Goals | No goals were set up as the panel awaited the results of TransECO ² |
| 1999 activities | None (awaiting TransECO ²) |

Other than the objects clause appearing in the functional description of the product panels, the 1999 action plan contains no overall objective for the panel's work. The goals address the development of methods and tools capable of promoting the production and sale of cleaner transport services. No goals have thus been set for implementing such methods and tools.

On the panel's recommendation, the Environmental Council for Cleaner Products allocated funds for three projects in the goods transport area in 1999:

- a project to develop source data to provide information about the environmental effects of international transport by railway and sea and to communicate such information
- a project to optimise the logistics chain between players through various types of interaction in a well-defined industrial area
- an analysis of the correlation between economic development, structural changes in production and distribution systems and transport consumption growth

When the action plan was renewed in 2000, the chairman prepared a proposal, following discussions with the Danish EPA, to link the panel's work and objectives more closely to the Government's catalogue of instruments, in a wish to bind participants to some overall, specific objectives. But, as mentioned earlier, the goods transport panel did not agree on an action plan for 2002, instead opting to focus on the following two areas:

- quantifying the environmental effects of goods transport
- increasing the possibilities of purchasers of transport services to include environmental impacts in the demand for transport services and, in this context, to develop evaluation tools and concepts for environmental cooperation between purchasers and providers of transport services

In close connection with these two areas, the goods transport panel recommended the launch of a project to develop and implement a

benchmarking system for road transport (in continuation of the preliminary project started in 1999).

The 2001 action plan resembles a brief activity plan. Thus, it has no overall objectives. Instead, it outlines a number of panel activities:

- dialogue in and presentation of proposals to the Danish EPA's dialogue forum for green accounts
- preparation of draft environmental guidelines for buying transport services
- a knowledge-sharing seminar on environmental declarations
- preparation of a project to standardise environmental data regarding transport services
- participation in joint analysis work with Ecolabelling Denmark and the Danish EPA regarding eco-labelling of transport services (the Green Swan logo)
- information activities (web portal, publications, knowledge-sharing meetings, etc.)

All these activities are already underway with the exception of information activities, which are likely to commence in the second half of 2001. Unlike in the action plan for 1999, where one target area focused on the implementation of existing tools, implementation seems to have become a secondary element in the panel's work.

3.3.3 Results and communication

At present, the goods transport panel cannot present many results. The panel members are pleased with the dialogue forum and the better contact established between the industry and the authorities. Several members also state that the panel's results should be assessed in a long-term perspective since its priority so far has been to develop methods and information systems that include the environmental impacts of goods transport in, say, green accounts, environmental management and benchmarking systems for the purpose of establishing a knowledge base accessible to all players. The results of this development work are only now emerging, for example in the form of a calculation tool for international transport and green purchasing guidelines.

All panel members interviewed agree that, if this is the panel's aim, then its project and tool orientation has worked well. In this context, the panel has also helped provide an overview of the area, according to its members.

So far, the panel has deliberately made communication a low priority, simply because it has no results to communicate to the outside world as yet. However, in the second half of 2001, the panel expects to adopt a plan based on a web portal for communicating the results of the panel's work to other interested parties in this area.

3.4 Product panels and formal framework

The product panel experiment was launched in 1998, following a deliberate strategy of making each product panel responsible, to a wide extent, for defining its own framework. So this serves to limit the number of requirements and objectives capable of curbing the panels' activities. Even so, this evaluation report is still meant to assess whether the product panels

presently meet the formal framework requirements applicable to them. Table 3.2 outlines the formal framework, while section 2.1 (Product panel framework) provides further details.

| Table 3.2: Product panels and formal framework | | | |
|--|---|--|--|
| | Product panels | | |
| | Electronics | Textiles | Goods transport |
| Overall objective: <i>promoting the development and sale of cleaner products</i> | Focus on development No indications of any existing market for cleaner electronics products | Focus on sale Visible results regarding the supply of cleaner textiles | Focus on development of tools and knowledge No indications of any existing market for cleaner goods transport services |
| Overall objective: <i>testing instruments in the Product-Oriented Environmental Initiative</i> | <ul style="list-style-type: none"> • Testing methods for assessing the environmental aspects of product concepts • Focus on knowledge dissemination | <ul style="list-style-type: none"> • Using eco-labels • Focus on knowledge dissemination | <ul style="list-style-type: none"> • Developing and implementing a benchmarking system |
| Establishing a dialogue forum | Panel members are satisfied with the dialogue forum established | Panel members are satisfied with the dialogue forum established | Panel members are satisfied with the dialogue forum established |
| Establishing an overview | <ul style="list-style-type: none"> • Overview of activities and regulation (website) • Action plan describes environmental impacts | Overview of activities, regulation and environmental impacts (action plan) | Catalogue of relevant projects in the area |
| Action plan | Project-oriented – objectives are weakly formulated | Focus on sale – objectives are very specific | Focus on building knowledge and developing methods/tools – no overall objectives |
| Annual progress reports | Annual report and project article for 1999 Project article only for 2000 | Annual evaluation reports for 1999 and 2000 | No annual progress reports |
| Independent power of decision and technical experience in environmental issues | <ul style="list-style-type: none"> • Generally little power of decision • Varying technical experience in environmental issues | <ul style="list-style-type: none"> • Power of decision rests with key players • Varying technical experience in environmental issues | <ul style="list-style-type: none"> • Generally little power of decision • Varying technical experience in environmental issues |
| Communication | <ul style="list-style-type: none"> • Website • Important part of activities | <ul style="list-style-type: none"> • Website • Important part of activities • Knowledge centre | Given very low priority so far |

As table 3.2 shows, the activities of the individual product panels differ greatly, as does the extent to which they fulfil the formal requirements and objectives laid down in the functional description. The electronics panel largely meets the framework requirements and intentions described for product panels. The electronics panel primarily engages in building knowledge, methods and competence at the development stage because this basis of information was nonexistent at the inception of the panel. It also

communicates knowledge, tools and methods to the remaining electronics industry, contributing to implementation on the development side. Currently, the primary challenge of the electronics panel is to promote the sale of cleaner electronics products, thus helping to create an actual market for such products. This market does not exist at the moment.

The textiles panel has focused strongly on the sale of cleaner textiles, boasting the most visible market results in the form of an increasing number of eco-labelled textiles. This is because the textiles panel already had a solid foundation of knowledge, tools and competence in environmental issues at the outset. The textiles panel appears to meet all formal framework requirements although not all members of the panel have substantial technical experience.

At present, the goods transport panel cannot present many results. It focuses on building knowledge, methods and competence at the development stage. To date, the goods transport panel has given knowledge dissemination a low priority, precisely because there are few results to disseminate as yet. As to its formal framework, the panel has failed to use the action plans adequately as management tools and has published no progress reports on its work. The product life cycle approach has proved difficult to reflect in the panel's composition, and the question is whether its current composition represents all significant market players in the goods transport industry.

4 Product panels as a Product-Oriented Environmental Initiative tool

Product panels are tools used in many environmental-policy contexts. Above all, they are part of the Programme for Cleaner Products, etc., and therefore also part of the Product-Oriented Environmental Initiative. Concurrently with this evaluation, the entire Programme for Cleaner Products, etc., is undergoing an assessment looking at how the individual elements of the Programme interact and how the Programme interacts with other strategies of the Product-Oriented Environmental Initiative. As there is no reason to duplicate this focus, this evaluation will, drawing on the product panels' experience, mainly address how other elements of the Programme interact with the Product-Oriented Environmental Initiative.

To help readers, the following section gives a brief introduction to the role of product panels in the Programme for Cleaner Products, etc., and the Product-Oriented Environmental Initiative.

4.1 Product panels' role in the Programme and the Product-Oriented Environmental Initiative

The Product-Oriented Environmental Initiative comprises a number of strategic initiatives in the environmental field, all aimed at promoting the development and sale of cleaner products. The initiatives come in response to the huge potential for reducing the environmental impacts that result from the vast number of products consumed by every household, company and the like on a daily basis. At the same time, the Product-Oriented Environmental Initiative has an industrial-policy goal: to reinforce Danish trade and industry's competitive edge in a future market that will increasingly put the environment on the agenda and demand cleaner products.

The Product-Oriented Environmental Initiative uses a number of instruments to promote the development and sale of cleaner products. These are:

- Accumulation of knowledge, methods and competence
- Information
- Green taxes and other economic measures
- Regulation of use
- Player involvement and cooperation
- International activities
- Subsidies

As far as the Product-Oriented Environmental Initiative is concerned, product panels are a tool included in the Player Involvement and Cooperation group of instruments. Since the introduction of the Product-Oriented Environmental Initiative in 1998, activities have been or are being supplemented with several new initiatives that, from a product life cycle approach, focus on specific target areas:

- Strategy for chemicals
- Focus on resource efficiency
- Strategy for waste prevention
- Green strategy for industrial development

Furthermore, the Danish Government is working on a national strategy for sustainable development that will go beyond the scope of the Product-Oriented Environmental Initiative. The strategy for sustainable development includes integration of environmental considerations in a number of policy areas such as climatic conditions, nature and biodiversity, health and life quality, waste, etc. The idea is to incorporate the Product-Oriented Environmental Initiative into the strategy for sustainable development.

The Programme for Cleaner Products, etc., is one of the key tools for implementing the Product-Oriented Environmental Initiative. The Programme is divided into:

- Development Scheme Part I (knowledge, product and market)
- Development Scheme Part II (waste and reuse)
- Environmental Competence Scheme
- Eco-Labels Promotion Scheme
- Cross-cutting information
- Perspective Pool

Product panels have their own operating budgets under the Development Scheme, but they can also recommend projects and initiatives fundable under the Programme.

4.2 Innovative character of product panels

Previous experience shows that, in some respects, product panels contribute new elements to the Product-Oriented Environmental Initiative. All three product panels have helped foster new and cross-sectoral forums for dialogue in areas where networks and work groups of this kind have not previously existed. Panel members are generally very open to these new forums, which integrate the market players in the Product-Oriented Environmental Initiative to an unprecedented extent.

Compared with other types of player involvement and cooperation, such as the Environmental Council for Cleaner Products, industrial initiatives, consultation rounds and the like, product panels differ in being new networks based on the product life cycle approach. The novelty lies in the fact that so many market players from the same product area are sitting at the same table. Probability and experience suggest that such new networks tend to get off to a fitful start and that their full value can only be assessed in the long run. Product panels represent a new approach to putting the environment on the agenda from a product life cycle perspective.

For one thing, the environmental impacts of product panels should be evaluated in terms of their spreading effect. The product panels do not exist for the mere purpose of allowing individual panel members to reap the benefits of such cooperation and accumulation of knowledge; they should also benefit an entire industry. In this connection, the textiles panel has managed to involve a large group of textiles and retail companies in the product range

of eco-labelled textiles launched in early 2001. Thus, at the launch of this product range, eleven Danish textiles producers were using the EU flower on their products, while about sixteen retail chains and a number of specialty stores were selling these eco-labelled textiles to retail customers. This spreading effect is the result of extensive fieldwork undertaken by the knowledge centre founded by the textiles panel.

The other two product panels have yet to boast the same spreading effect, but the electronics panel has established a website that compiles knowledge, methods and tools in the field of environmental issues and electronics products. In addition, all three product panels have held a number of workshops, conferences and the like.

According to the panel members, work undertaken by the individual product panels has helped put the development and sale of cleaner products on the agenda in the three industries. However, impact has varied greatly between the three industries. The question is to what extent do the market players sitting on and involved in the product panels feel bound to this new panel cooperation? Outside of its operating budget, the textiles panel has invested resources in building a knowledge centre funded by the Federation of Danish Textile and Clothing, a trade association. Furthermore, many textiles companies have worked hard to have their products eco-labelled. Otherwise, the panel members have generally not invested resources in panel work beyond time spent. The panel member interviews suggest that many consider product panels interesting dialogue forums that give them a relatively informal opportunity to keep abreast of environmental issues and to discuss environmental problems.

4.3 Interaction with other Programme elements

The product panels encompass entire product life cycles, thus touching on other elements of the Programme for Cleaner Products, etc. At the same time, the product panels are relatively free to lay down their own strategies for promoting the development and sale of cleaner products and for selecting the instruments that they want to test.

Through their action plans, the product panels have recommended and spurred a wealth of analysis and development work in the three product areas (see chapter 2). The electronics and goods transport panels, in particular, have focused primarily on the part of the Programme known as the Development Scheme, which addresses the accumulation of knowledge and methods, product development, market development as well as waste and reuse.

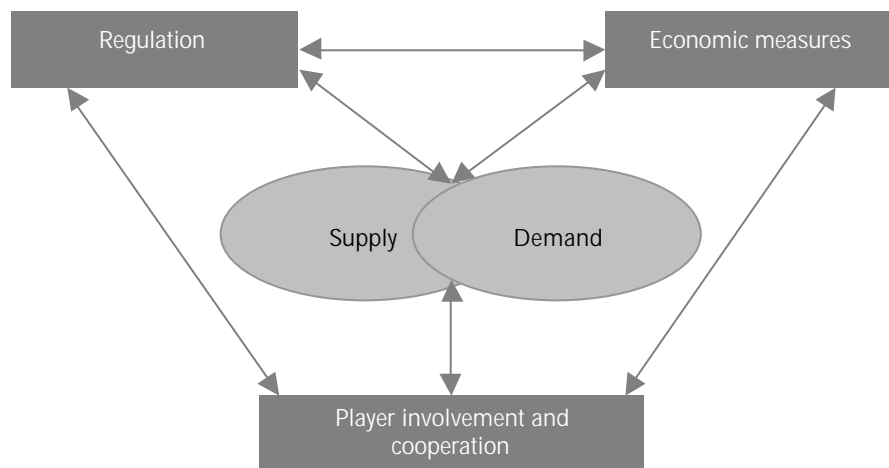
As a result of the textiles panel's efforts in developing a product range of environment-friendly textiles, about half of the producers using eco-labels have been subsidised under the Environmental Competence Scheme. Furthermore, when the textiles panel launched a new product range of eco-labelled textiles, an amount of approximately DKK 6m was allocated under the Programme for Cleaner Products, etc., to a large-scale eco-labels information campaign addressing products like textiles.

4.4 Product panels – a useful tool in the Product-Oriented Environmental Initiative?

Basically, Danish environmental policy uses two traditional tools: regulation and economic measures. Regulation comprises environmental legislation, whereas economic measures include subsidy schemes and environmental taxation. However, international policy, especially European Union policy, increasingly limits both tools. Denmark is under an obligation to adjust environmental regulations to EU directives, and EU rules governing subsidisation and indirect taxation also put a cap on economic measures. In this light, efforts are currently being made to introduce alternative tools to allow Denmark to pursue an active environmental policy.

A third tool in the Product-Oriented Environmental Initiative is player involvement and cooperation, including the product panels. These three tools interact closely, all aiming to control, encourage and get the market to develop and sell cleaner products. Figure 4.1 illustrates interaction between the three policy tools.

Figure 4.1: Product-Oriented Environmental Initiative tools



Source: Oxford Research A/S, 2001.

The product panels interact with the other two tools in that they provide input to new and existing regulation. Not only does such input give the environmental authorities valuable technical response and an insight into the effects of regulation for a broad group of market players, the direct involvement of market players may also ensure increased support and better understanding of the need for environmental regulation. Furthermore, the product panels can enhance the market players' insight into future regulation, which could be an advantage when they develop long-term strategies, for example in product development.

In this process, the product panels can also help stimulate market self-regulation, with market players setting new standards for environment-friendly products on their own initiative. This will happen when, for example, a company contributes to market development by marketing new environment-friendly products or when consumers start demanding cleaner products.

Unlike with the economic measures, the product panels themselves initiate the development of products and the like under the subsidy schemes. This makes them users of the subsidy system and thus able to make recommendations for subsidies. Similarly, product panels can contribute experience to indirect-tax policy.

The product panels strengthen interaction between the market and the environmental authorities. Using the regulation tool, the environmental authorities are already seeking to involve market players through consultation rounds on bills, the composition of the Environmental Council for Cleaner Products and the ongoing public debate on regulation. As far as subsidies are concerned, projects and initiatives often involve close cooperation between project members and the Danish EPA. Characteristically, however, these two traditional tools in fact interact bilaterally between the Danish EPA and one or few market players. In this respect, the product panels are a novelty in that they introduce dialogue forums representing a relatively broad selection of market players along product life cycles. This links market supply and demand together in a shared dialogue with the environmental authorities.

As a Product-Oriented Environmental Initiative tool, product panels remain an experiment with some teething troubles. Yet it appears to be a relevant and useful tool capable of:

- strengthening interaction between the market and environmental authorities
- strengthening the implementation of the Product-Oriented Environmental Initiative
- increasing market self-regulation
- making people more aware of the product life cycle approach

5 Conclusions and recommendations

and

This chapter summarises experience gained from the three product panels for the purpose of identifying the pivotal factors in determining product panel activities. It outlines and discusses the dilemmas of using product panels as an environmental initiative tool.

Drawing on analysis results, the chapter proposes a number of recommendations for the future use of product panels in the Product-Oriented Environmental Initiative. Does the product panel concept need adjustment? Finally, the chapter discusses how product panels can interact with environmental initiatives contemplated by the European Union in the product area.

5.1 Pivotal factors in determining product panel activities

The three product panels have moved in different directions and have achieved different results. The intention of the Danish EPA has always been to provide a relatively broad framework for product panels to develop on their own conditions. In itself, this has been a crucial factor in the product panels' activities.

The panel members interviewed have pointed to several factors that have affected the product panels' activities. To some extent, the members see the product panels as being part of an experiment charged with defining its own framework. At the same time, cooperating with such varying – at times conflicting – interests in one specific product area has been a new experience for many of the members. In all three product areas, this new and relatively undefined forum has sparked off many a discussion on objectives, funds and obligations.

One should keep in mind that the product panels in the three product areas operate on different foundations of knowledge, tools and competence in environmental issues. At the launch of the textiles panel, the textiles industry already had such a foundation to offer, whereas the electronics and goods transport panels had to develop their fundamental knowledge and tools.

One of the most important factors in product panel work processes, if not the most important, is the composition of the panels.

5.1.1 Composition

Unsurprisingly, the composition of panel members is vital to the panels' development and results. According to many panel members interviewed, dedication and a belief in the ability of product panels to make a difference are pivotal factors. The work undertaken by the textiles panel, which has achieved the most evident market results, clearly reflects this dedication and firm belief.

This is also closely related to the power of decision that members bring with them into the product panel. The textiles panel has succeeded in recruiting a

number of key market players⁸ with a substantial power of decision, especially from the retail trade. Neither the electronics panel nor the goods transport panel has managed to do the same. In the electronics panel, individual power of decision seems to be relatively limited, and no companies representing the retail trade sit on the panel, for example. Only one private enterprise representative currently sits on the goods transport panel. Consequently, the electronics and goods transport panels have not had the same opportunities to produce specific market results supported by front-runner companies⁹ and other key market players. Together with trade associations as well as consumer and environmental organisations, public institutions are used to operating under framework conditions, so when this type of participant is clearly over-represented in a product panel, focus naturally shifts from market-oriented projects to this level.

The decision-making process conducted by the three product panels also reflects the difference in power of decision. The textiles panel, whose members possess the greatest individual power of decision, seems to have more room for negotiation. A key element of its action plan, choosing an eco-label, is thus based on a compromise. The textiles panel agreed on using the European eco-label, the flower, although several panel members preferred the Nordic eco-label, the Green Swan logo. A product panel's scope for action hinges on its ability to make compromises and thus to prevent the lowest common denominator from forever setting the strategy. Obviously, the other two product panels have had difficulty compromising, which is reflected in the very generally formulated objectives, if any, in their action plans.

5.1.2 Chairmanship and secretarial duties

Many of the panel members interviewed point out that the role of the chairman is particularly crucial to the development and results of the product panels. As the product panels consist of a number of players who do not normally work closely together and who, in some cases, have conflict-ridden relationships, having an impetus has been pivotal in motivating the panels and attracting their attention. Furthermore, the chairman is charged with presiding over the discussions and must constantly push the process forward to allow the individual panel to increase its scope for action despite diverging interests and limited resources. One should remember that a product panel usually meets once every two months and that participation is unpaid for all members except the secretary. Members therefore expend only limited resources on panel work, and the chairman and the secretary typically need to keep the process moving between meetings.

According to the panel members interviewed, great demands are placed on the chairman, who under optimum conditions must:

- be a motivating and inspirational chairman of the panel's discussions
- be enterprising, results-oriented and dynamic for the purpose of keeping the process moving
- possess technical and industry-specific knowledge

⁸ For example, key market players have large market shares, thus possessing a dominant position. In the consumer non-durables industry, the two purchasing managers of FDB and Dansk Supermarked represent about two thirds of total trade in non-durables.

⁹ In this context, a front-runner company is a company choosing to lead the way, for example by marketing itself as a manufacturer of environment-friendly products.

- be able to develop compromises (not just the lowest common denominator)
- be able to preside over discussions and negotiations from a neutral position (not be too influenced by self-interest)
- be able to represent the panel

Finding a chairman on the basis of these many criteria is not easy, and especially not when chairmanship duties are unpaid.

In both the electronics and the goods transport panels, the same person has performed both the chairmanship and the secretarial duties. According to panel members interviewed, having one person perform all duties has not posed any substantial problems. Interviews with textiles panel members suggest, however, that having separate secretarial duties has benefited the panel in its work. Trusted by panel members and helping solve potential conflicts, the textiles panel secretary has played an especially neutral role.

5.1.3 Action plan

The course of events in the three product panels suggests that the action plan is an important management tool. The more specific the objectives of the panel's work are, the easier it is to maintain focus and put action behind words. On the other hand, broadly formulated objectives and action plans seem to result in too many and too broad target areas. Without a targeted and visionary action plan, product panels seem to have difficulty moving from tool and method-oriented development work to implementation and specific market results.

A generally formulated action plan is typically a symptom of a product panel's difficulties reaching consensus. So the action plan is not necessarily the underlying problem. Still, it is an important management tool enabling a product panel to formulate a common platform for further development. A poor action plan may well disrupt a product panel's work process, even though the panel members originally supported a common strategy.

5.1.4 Danish EPA

Several of the panel members point out that the annual operating budget granted by the Danish EPA is vital to a product panel's work. It is difficult imagining that the panel members contribute such funds out of their own pockets. At the same time, constantly having to apply for small amounts to cover incidentals would constitute a great source of irritation. Furthermore, it is important for the panel members' motivation that the Danish EPA and the Environmental Council for Cleaner Products have widely chosen to follow the product panels' recommendations for new initiatives and projects.

The panel members generally commend the Danish EPA on the way it handles a very difficult role in the product panels. According to several panel members, the fact that Danish EPA representatives in the panels have remained relatively neutral is very important. The goods transport panel has found it particularly important that the panel's activities are in keeping with increased sector integration in the environmental area. As mentioned above, no action plan was adopted for 2000 because the Road Safety and Transport Agency and the Danish EPA needed to discuss the action plan on a bilateral basis.

5.1.5 Knowledge dissemination

The product panels' work will have a major impact only if the panels manage to spread knowledge, tools and methods in the fields of environmental issues and products to a broad target group rather than to the panel members only. The product panels need to develop a strategy for disseminating information and knowledge. In addition, the product panels can profit from establishing a setup that ensures that knowledge is spread on a regular basis. In this connection, the textiles panel has been able to draw on the knowledge centre established with funds from the Federation of Danish Textile and Clothing, a trade association. Since its establishment, the knowledge centre has undertaken a good deal of fieldwork in the textiles industry. Moreover, the centre has accumulated a wealth of knowledge and consulting opportunities for the entire industry in respect of textiles and environmental issues.

Using the Internet to inform about reports, guidelines, tools, etc., is only natural in a knowledge dissemination strategy.

5.1.6 Industry-specific factors

Product panel work requires that outside parties and especially the remaining part of the industry support the panels in putting the development and sale of cleaner products on the agenda. For example, the Danish electronics industry seems reluctant to accept the use of eco-labels. Only few electronics products in Denmark are eco-labelled, but in some cases the very same products are eco-labelled when sold in Sweden. This constitutes an important barrier to the electronics panel as it has yet to reach consensus on how to use eco-labels and/or environmental declarations to promote the development and sale of cleaner electronics products.

Industries boasting high import and export rates operate in a global market where product life cycles can be spread over a number of countries. This may impede the process of measuring and checking environmental impacts from a product life cycle perspective. At the same time, the Danish market is small, making it difficult for Danish importers to place environmental demands on non-Danish suppliers.

Industrial structure impacts on the product panels' activities. Industries with many small suppliers may have difficulty promoting the widespread implementation of new knowledge and new tools in the environmental field. Many of the small suppliers think that they have insufficient resources for environmental investment. Industries with several large suppliers typically find it easier to involve these players as large suppliers often compete to be at the forefront of new technology.

Demand trends may also slow down the process of making the environment a greater consideration than is currently the case. In the goods transport industry, trends point towards faster delivery, greater flexibility and higher use of door-to-door delivery. This makes it difficult for hauliers to improve route planning and thus increase capacity utilisation for the purpose of reducing pressures on the environment. Furthermore, it limits the possibilities of using other transport methods that are typically less harmful to the environment, but more inflexible.

5.2 Product panel dilemmas

The product panels are an experiment in the Product-Oriented Environmental Initiative. The Danish EPA has had the development task of setting the scope for product panels, and the Agency has made a clear choice in providing a relatively broad framework for product panels to define their own target areas and work methods. Yet previous experience shows that a number of dilemmas are associated with the product panels' activities and work methods. This section discusses these dilemmas, while section 5.3 (Are adjustments needed?) contains recommendations in respect of these dilemmas.

The **role of the Danish EPA in the product panels** is definitely a dilemma for product panel activities. The Danish EPA uses a wealth of direct and indirect management tools in the present product panel concept. One could question whether the product panels are able to "lead their own lives" when

- an existing agenda lays down the strategic selection of product panel members;
- at least two Danish EPA representatives sit on each panel; and
- the Danish EPA is free to recommend proposals in the product panels' own action plans for subsidisation under the Programme for Cleaner Products, etc.

The advantages of giving product panels free scope for action are that it may encourage panel participation and make product panels more independent of the political system. In 2000, the goods transport panel had to operate with no action plan because the Danish EPA and the Road Safety and Transport Agency bilaterally needed to clarify their common stance on the action plan.

On the other hand, other examples show that the Danish EPA has played important roles in the three panels. The Danish EPA was in charge of the electronics panel during a transition period between the first and second chairmanship. The Agency is now a key member of the panel, deeply involved in a number of its projects. The remaining panel members fully accept and support this fact, for one thing, because administrative requirements specify that the Danish EPA must head the steering committees of such projects. Several members of the textiles and goods transport panels stress the importance of the input that the Danish EPA provides when briefing the panels on political developments in this area, giving technical response and providing advice in respect of project funding.

The problem surrounding the Danish EPA's role in the product panels is closely related to the **functions** that the Agency wants the product panels to perform. The Danish EPA does not want the product panels to replace the political processes involving NGOs and other parties. However, the panels show an increasing tendency to want to become involved in the process before or during consultation. In several cases, the product panels have jointly attempted to submit consultative comments on political proposals. For example, the electronics panel tried – in vain – to issue consultative comments on a bill to amend the Danish Sale of Goods Act. It seems that product panels are attempting to bind the Danish EPA and the political system through panel participation. But if a product panel – probably through tough political negotiation and compromise – succeeds in issuing a joint set of consultative comments, does this mean that the political debate has shifted to an exclusive

forum to which the individual parties are invited? The question is whether this type of consultation is particularly democratic. Furthermore, it is impossible to maintain an objective specifying that panel members who are negotiating comments do not generally bind their workplaces.

The general idea behind introducing product panels is to allow the panels, through mutually binding cooperation between players, to promote the development and sale of relatively cleaner products and test instruments in the Product-Oriented Environmental Initiative. This objective puts great weight on the implementation and development of the supply and demand sides of cleaner products. Yet implementing and developing an actual market for cleaner products depend on the existence of knowledge, tools and competence. The electronics and goods transport panels have had to work harder to build this foundation than has the textiles panel. Are the product panels a suitable concept for building a foundation and for developing and implementing a market? Or should the composition of panel members be adjusted to match the primary challenges of a product panel?

The **distribution of interests** is one obvious dilemma for the product panels. On the one hand, political and methodical aspects must be taken into account by involving all players in a product life cycle. In theory, everybody has a right to be involved in the process, and the product life cycle approach ensures optimum synergy and development in the interaction between all players. Moreover, several panel members point out that the broad representation of interests in the panels has triggered inspiring and many-sided discussions. At the same time, the broad internal distribution of interests in the panels has caused the surrounding world to regard the recommendations proposed by the individual product panels as reliable and to support these on a broad basis. On the other hand, the broad distribution of interests constitutes a procedural challenge since the many sides to an issue do not make it any easier to maintain focus and – ultimately – to reach a joint decision/strategy. The risk is that interests will conflict to an extent that prevents a panel from agreeing on anything or that forces a discussion to end in a useless consensus solution based on the lowest common denominator. Power of decision is an important question in this connection because the more individual power of decision an individual panel member has, the more likely a discussion is to result in negotiations and a more far-reaching compromise solution.

The **allocation of resources** to product panels constitutes another dilemma. According to many panel members, it can be difficult to allocate time and resources for unpaid work in a product panel. NGO representatives, in particular, often have to make clear-cut priorities when it comes to allocating scarce resources. Preoccupied as they often are with the businesses that pay their salaries, the key players (decision makers) in a product area find it difficult to spare

Respect for the environment

A network of European business executives called Respect Table was established in 2000. Companies represented in this network include Ikea, British Telecom, Poseidon and Scandinavian Leisure Group. Unlike the more traditional part of the industry, these companies have drawn up an environmental action plan that reaches beyond the scope of the original Kyoto agreement.

Respect Table has held several meetings with the EU environmental commissioner and also participated in the EU summit in Gothenburg in June 2001. In cooperation with the EU commissioner, Respect Table has submitted a draft action plan termed BLICC (Business Leaders' Initiative on Climate Change).

Respect Table was established on the initiative of Respect Europe, a network of European companies engaged in the social and ethnical areas. Respect Europe provides secretarial assistance to Respect Table and has also set up an internal information system that enables participating companies to share knowledge on a regular basis.

Unlike product panels, Respect Table is made

both the time and efforts for a product panel.

Under the current product panel concept, only secretarial duties are paid. Remunerating panel members would conflict with the Danish EPA's underlying assumption that markets should really invest in these product panels themselves because the panels are likely to help place them at the forefront of future demand for environment-friendly products. Experience from the three product panels suggests, however, that no players other than the Danish EPA are likely to introduce and fund a product panel in any new product area. Instead, one or more key market players could take an initiative in establishing another type of organisation and member composition (see the example in the right-hand text box where a group of leading businesses in Europe set up a network whose task is meant to influence international environmental policy).

To some extent, these dilemmas are the starting point of the next section, which discusses whether adjustments are needed to the product panel concept. This section presents a number of recommendations for the future use of product panels.

5.3 Are adjustments needed?

Product panels are a good idea. Regulation and economic measures are not the only instruments. Denmark would never have seen a business and environmental success story in the wind turbine industry, had entrepreneurial business executives – in concert with authorities and other players in the area – not understood the necessity of putting words into action. All market players in a product life cycle have to be involved for Denmark to gain a competitive edge by becoming a leading country for cleaner products.

But just as regulation and economic measures are not the only keys to success, product panels do not necessarily represent the definitive Product-Oriented Environmental Initiative solution. The product panels can be but one element of this initiative. Previous experience suggests that several conditions must be met for the current product panel concept, based on the product life cycle approach, to be the optimum solution.

Above all, experience from the goods transport panel seems to show that product panels are best set up in areas whose product life cycles are clear. Implementing the product life cycle approach in the goods transport panel has been difficult. Goods transport is a service activity and functions as a market player in other product areas. Dealing with product life cycles in goods transport requires focusing on specific product areas or, alternatively, incorporating producers of transport means into product life cycles. In one project, the goods transport panel chose to focus on one product area (building and construction). Hence, this panel has been unable to develop as dynamic and strategic work processes addressing full product life cycles as those developed by the other two product panels. On the contrary, work in the goods transport panel seems to be concentrated on a relatively small group of dedicated panel members who have focused their attention on professional standards rather than strategic objectives. The 2001 action plan contains no overall objectives and appears to reflect a relatively low level of ambition in the panel.

The goods transport panel should not continue in its present form. It should be integrated into a product area where goods transport impacts heavily on

the environment, or radical changes should be made in its composition. See section 5.3.2 below (Composition).

The success of product panels depends on the establishment of a clear strategy for selecting panel members to address the challenges existing in a given product area. In the electronics industry, the primary challenge has been to build a foundation of knowledge, tools and competence for the purpose of promoting the development and sale of cleaner electronics products. A technically and environmentally strong electronics panel is therefore needed. As a solid basis of knowledge, tools and competence already exists in the textiles industry, the textiles panel needs members with strong market focus in order to promote the sale of cleaner textiles in particular. Involving and engaging both front-runner companies and key decision makers, especially in the retail trade, in its work have been crucial to the textiles panel.

Against this background, the evaluators find that the present member composition of the electronics panel will make it difficult for the panel to lay down a more sales-oriented strategy once it has developed an adequate basis of knowledge, tools and competence. At the moment, the electronics panel has not yet internally developed any strategy for the use of eco-labels and/or environmental declarations, and apparently more front-runner companies and key decision makers need to be involved, for example from the retail trade, to initiate market development.

The activities of the electronics panel have also been characterised by too many balls in the air (current projects) at the same time. The question is whether the broad panel composition based on the product life cycle approach is appropriate when a product area widely needs to build a foundation of knowledge, tools and competence. Alternatively, industrial initiatives implemented by fewer players could mean more focused action. In theory, a product panel should benefit from the many aspects of a product life cycle, but the panel must first agree on a joint strategy. Later in the process, a product panel will, however, face the same challenge as the electronics panel because it will have to shift from a technical/environmental focus to a market focus.

According to the evaluators, a certain amount of knowledge, tools and competence must exist in a product area to establish a product panel based on the product life cycle approach. Product panels appear to be a particularly effective instrument for starting a process of implementing existing knowledge and tools on the assumption that the panel members have a market focus.

The following sections contain recommendations for adjustments to the product panel concept. Generally, the evaluators recommend that the Danish EPA continue to use product panels as a tool in the Product-Oriented Environmental Initiative. Yet adjustments are needed to streamline the concept, thus reducing the uncertainty surrounding objectives, framework requirements, obligations, etc. At the same time, experience can form the basis for establishing a framework for product panels that supports a better and more constructive work process.

5.3.1 Functions

The emergence of dialogue forums in the environmental area that strengthen the product life cycle approach in the market is a positive and important innovation. They are a key instrument in changing the attitudes of the market

and all other related players. Traditionally, a conflict of interests has often plagued the relationship between environmental and business issues. Product panels are a symbol of and an instrument for promoting joint objectives for cleaner products.

However, efforts must be made to streamline the strategy concerning the functions to be performed by product panels as well as the Danish EPA's expectations for their work. It is recommended that the panels keep the overall product panel objective of promoting the development and sale of cleaner products and of testing instruments in the Product-Oriented Environmental Initiative. However, the product panels should focus more sharply on implementing the Product-Oriented Environmental Initiative and on boosting the supply side. This means that a product panel's strategy should specify – on a point-by-point basis – how and when to establish a market for cleaner products. To meet these strategic initiatives, a string of activities and projects for building knowledge, methods and competence will probably have to be launched, but the ultimate goal of promoting the sale of cleaner products should be clear.

In the implementation process, it is important to point out that product panels also function as a link between environmental authorities and the market. This does not mean that product panels should take over the environmental authorities' information activities targeted at the market, but product panels are under an obligation to initiate systematised knowledge dissemination. A later section will elaborate on knowledge dissemination.

Product panels should not, however, have any separate functions relating to consultation on new legislation and the like. First, it would be inordinately time-consuming and probably impossible for a product panel to agree on a joint set of consultative comments. Second, it would undermine the democratic principles of public consultation if a key part of public debate on new legislation were to take place in an exclusive forum of interests chosen by the Danish EPA.

5.3.2 Composition

A pivotal factor in determining the activities of a product panel is its composition. It is therefore important that the Danish EPA continues to select members for the panels on a strategic basis. To ensure a reliable and well-balanced dialogue forum, the Danish EPA should retain the use of the product life cycle principle as a basic criterion for selecting product panel members.

Every new product area in which the Danish EPA wants to introduce specific initiatives should be subjected to an analysis of barriers and challenges to the development of a market for cleaner products (forming the basis for the composition of a product panel). This analysis must identify core players in the product area, including front-runner companies and other key market players, capable of taking the environmental lead in the industry. One reason for the good results achieved by the textiles panel is that it has succeeded in persuading front-runner companies and/or key market players from both the production side and the retail trade to sit on the panel.

The number of panel members should be 15 or 16 persons, thus ensuring a broad representation of interests without jeopardising the work process. At least half of a panel's members should be representatives of private enterprises

– preferably front-runner companies or other key market players – to ensure that focus remains on implementation and market development. Trade associations can aid in disseminating knowledge, but the individual companies will provide the most direct market effect. The remaining product panel members should be selected for the purpose of securing a broad representation of market players in product life cycles.

Above all, when selecting members for a product panel, the Danish EPA should look for key resource persons in the product area in question, preferably people possessing power of decision and environmental experience. If neither criteria can be met or the Danish EPA prefers to invite a company/organisation, then power of decision is more important than environmental competence. Although panel members should have no formal obligations towards their workplaces, thinking that they will act independently of their companies/organisations is unrealistic. Consequently, the individual panel members should possess a certain power of decision allowing more latitude in discussions and panel strategy preparations.

As far as possible, product panels should operate independently of the political system. They should do their utmost to implement the Product-Oriented Environmental Initiative and should generally be uninvolved in the political process. This separation will be made clearest if the number of representatives from political organisations is kept down when members are selected for a product panel. This means that only one Danish EPA representative should sit on each product panel. The following section contains recommendations concerning the role of the Danish EPA.

5.3.3 Role of the Danish EPA

The role of the Danish EPA in the product panels' previous activities has been unclear – not least to the Danish EPA's own representatives. For the sake of everyone involved, the role of the Danish EPA should be clearly defined.

Realistically, however, the Danish EPA will never be able to play a role as an equal product panel member because the Agency is responsible for launching product panels, providing operating budgets and approving recommendations to fund new projects. Rather, each panel should have only one Danish EPA representative to act as a link and technical guarantor. The Danish EPA should be under an obligation to brief a product panel regularly on political developments relevant to the panel's work. At the same time, the Danish EPA representative should be a technical guarantor/partner participating in technical discussions. On the other hand, the Danish EPA representatives should not participate in discussions about strategic objectives for the panel's work if there are no technical reasons for such participation.

5.3.4 Chairman and secretary

Although combining chairmanship and secretarial duties apparently works satisfactorily in the electronics and goods transport panels, separating these duties is preferable. Two different persons are needed to perform the tasks and duties of these two jobs.

The chairman is a key person in the product panel and should:

- be a motivating and inspirational chairman of the panel's discussions

- be enterprising, results-oriented and dynamic for the purpose of keeping the process moving
- possess technical and industry-specific knowledge
- be able to develop compromises (not just the lowest common denominator)
- be able to preside over discussions and negotiations from a neutral position (not be too influenced by self-interest)
- be able to represent the panel

The chairman will automatically put a lot of energy and time into a product panel. The chairman should support and cooperate with the secretary in drawing up draft action plans, project descriptions and the like. So it is only fair for the operating budget to allocate remuneration to the chairman in an amount that reflects his or her workload.

Selecting a suitable chairman on the basis of the many criteria is difficult, and it can be particularly hard to find a person with technical and industry-specific knowledge as well as a neutral background. Hence, the person performing all secretarial duties should be neutral. This ensures that the preparation of meeting minutes, draft action plans and the like is trustworthy. Furthermore, the secretary should play an active role during meetings and discussions when the mediation of a neutral person may be needed. As with the textiles panel, the secretary could be a consultant.

5.3.5 Action plan

Product panels should use their actions plans as a management tool. Since product panels meet only every two or three months, a fixed reference point is needed to maintain focus.

The content requirements for an action plan should be strict to provide product panels with a good management tool. It is recommended that a two-year/three-year action plan be drawn up, containing clear objectives that lay down how and when to establish a market for cleaner products. The action plan must set milestones for the fulfilment of these objectives. The chairman, the secretary and the Danish EPA should be responsible for ensuring that the objectives of the action plan are as clear and operational as possible.

An action plan must be supplemented with an activity plan that is updated on a regular basis. Finally, a strategy should be laid down for disseminating knowledge (see the following section).

5.3.6 Knowledge dissemination

Product panels should be under an obligation to act as a link between environmental authorities and the market. Product panels have not been introduced to serve a minor group of key market players, but to benefit an entire market. As a result, knowledge dissemination is an important element of the panels' activities, and an independent strategy should be laid down for this area.

Product panels should use an institutionalised form of knowledge dissemination. At best, other product panels will follow the example of the textiles panel and establish knowledge centres to handle some of the panels' knowledge dissemination work. Knowledge centres will not necessarily be

needed in all product areas, so they represent an initiative to be taken by the individual product panel or the individual market player. Knowledge centres or regional competence centres capable of fulfilling this role already exist.¹⁰ Instead, the Danish EPA should consider supporting the product panels in using the great opportunities inherent in the Internet for disseminating knowledge.

5.3.7 Organisation

It should generally be up to a product panel to organise its own meeting activities as it sees fit. Offhand, it seems a good idea for product panels to start, at some point during the process, decentralising the technical and detailed discussions of well-defined issues/projects to set up work groups. This would allow panel members to join the work groups in which they have a particular interest and to which they have particular resources to contribute. New members could regularly join these work groups, which would serve to involve more market players in a product panel's work.

5.3.8 Funding

Experience from the three product panels in the areas of electronics, textiles and goods transport shows that the operating budget is crucial to the activities of a product panel. It seems unlikely that a product panel can exist and operate with the sole support of the Danish EPA.

The Danish EPA has a very high "rate of return" on the small amount of funds invested in product panels. A group of market players put in a good many hours of work in a product panel. It is recommended that the operating budget be adjusted to include funds for remunerating both the chairman and the secretary. Furthermore, the operating budget should allocate funds for Internet-based information initiatives.

Remunerating individual or all panel members for hours spent on panel activities, etc., is considered unnecessary. No evidence seems to support the fact that remuneration will improve a panel's results. A lack of resources is not one of the primary barriers to a product panel's work.

¹⁰ Danish Ministry of Economic and Business Affairs: "Regional Erhvervspolitisk Redegørelse .reg21", 2001.

5.3.9 Summary of recommendations

Table 5.1 summarises recommendations for adjusting the product panel concept:

| Table 5.1: Recommendations for product panel concept adjustments |
|---|
| General recommendations |
| <ul style="list-style-type: none"> • The Danish EPA should continue using product panels as a tool in the Product-Oriented Environmental Initiative. • The concept should be streamlined to reduce doubts about objectives and framework requirements. |
| Functions |
| <ul style="list-style-type: none"> • Efforts should be made to maintain the overall objective of promoting the development and sale of cleaner products and testing instruments in the Product-Oriented Environmental Initiative. • It should be emphasised that special importance must be attached to implementation. • Product panels are the link between environmental authorities and markets (focus on knowledge dissemination). • Product panels should not be used for consultation regarding the introduction of new legislation. |
| Composition |
| <ul style="list-style-type: none"> • The product life cycle principle should be maintained as a fundamental criterion for the composition of a product panel. • A product area analysis should be performed before any strategic selection of panel members is made. • Focus on front-runner companies and other key market players. • Focus on panel members' power of decision. |
| Role of the Danish EPA |
| <ul style="list-style-type: none"> • Only one Danish EPA representative should sit on each product panel. • The Danish EPA should act as a link and a technical guarantor in each panel. |
| Chairman and secretary |
| <ul style="list-style-type: none"> • Performing the chairmanship and secretarial duties should be two separate functions. • The chairman should be remunerated for his or her tasks and duties. • The secretary should have a neutral background. |
| Action plan |
| <ul style="list-style-type: none"> • An action plan must contain clear objectives to identify how and when to develop a market for cleaner products. • An action plan should be supplemented with an activity plan and a strategy for disseminating knowledge. |
| Knowledge dissemination |
| <ul style="list-style-type: none"> • The product panels should use an institutionalised form of knowledge dissemination (knowledge centre, website, etc.). • The Danish EPA should support the product panels' use of the Internet for disseminating knowledge. |
| Organisation |
| <ul style="list-style-type: none"> • The product panels should consider organising work groups for technical and detailed discussions of well-defined issues/projects. |
| Funding |
| <ul style="list-style-type: none"> • The operating budget should be adjusted to include remuneration to the chairman and financial support for Internet use. • Remunerating panel members for their work seems unnecessary. |

5.3.10 Product panels and the EU's Integrated Product Policy (IPP)

The European Commission is about to introduce a new environmental-policy concept, Integrated Product Policy (IPP), which largely resembles the Product-Oriented Environmental Initiative. The Commission has released a green paper on IPP, suggesting initiatives in three areas:

- The environmental impacts of products should be reflected in prices to a higher degree than is currently the case.
- Consumers should be encouraged to buy cleaner products.
- Producers should be encouraged to manufacture cleaner products.

The green paper lists a number of instruments under each target area, singling out product panels – on the basis of Danish experience – as one solution to integrating and involving market players in IPP.¹¹

The Danish textiles panel has submitted its comments on the green paper to the European Commission, presenting experience gained from the Danish product panel concept. The textiles panel also includes its recommendations for establishing product panels at European levels. Among other things, the panel stresses that it is important that environmental authorities support product panels; that product panels number players who are both dedicated and legally competent to transact business; that attention be focused on knowledge dissemination; and that product panels be able to draw on the services of a secretariat.

Undoubtedly, the EU can benefit from Denmark's experience in introducing product panels as an environmental tool. At European levels, many problems will resemble those faced by the Danish product panels. Involving front-runner companies and other key market players capable of influencing a market for cleaner products on a large (geographical) scale and with great effect will probably be more crucial to the product panels' dynamics at European levels than in Denmark. At the same time, it is becoming even more important to ensure efficient dissemination of knowledge, spreading to the entire European market.

The Danish product panels can submit an application for representation in European cooperation forums if product panels are set up in the same product areas as in Denmark. Formalised cooperation at European levels could strengthen the Danish product panels' work simply because environmental legislation is increasingly being defined in EU forums and product life cycles are in many cases international. Finally, the European eco-label, the EU flower, is an important factor in environmental initiatives, and the criteria for using this eco-label are negotiated and defined at European levels.

If the Danish product panels fail to achieve representation in new European product panels, international contacts will still need to be cultivated so that Denmark can become an integral part of networks and knowledge dissemination. The electronics panel has been especially active in establishing international contacts in this regard.

¹¹ European Commission: "Green Paper on Integrated Product Policy", 2001.

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- Textiles panel: “Opinion of the Danish textiles panel on the European Commission Green Paper on Integrated Product Policy”, 2001
- Textiles panel: “Evaluering af panelets første år” (Evaluation of the panel’s first year), 2000
- Textiles panel: “Evaluering af panelets andet år” (Evaluation of the panel’s second year), 2001
- Textiles panel: “Koordinering af udvikling af miljøvenligt produktsortiment” (Coordination of the development of an environment-friendly product range), 2001
- Textiles panel: “Handlingsplan” (Action plan), 1999

Appendix A: Total list of persons interviewed

Personal interviews:

- Gert Hansen, Danish EPA
- Arne Remmen, Environmental Council for Cleaner Products
- Tage Dræbye, DRÆBYE Rådgivning og Projektledelse
- Robert Heidemann, Danish EPA
- Søren Boas, Post Denmark
- Torben Holm, Danish Freight Forwarders Association
- Christian Hjorth, General Workers' Union in Denmark (Environmental Issues)
- Jesper Thestrup, In-Jet ApS
- Jørgen Jacobsen, Danish EPA
- Jesper Olesen, Bang & Olufsen
- Leif Christensen, Trade Organisation for Consumer Electronics
- Rikke Dreyer, National Procurement Denmark
- Peter W. Christensen, SPM Grøn Elektronik
- Leif Nørgaard, Novotex
- Erik Møller, Södahl Design
- Anette Pedersen, Valour og Tinge
- Aage K. Feddersen, Federation of Danish Textile and Clothing
- Kenneth Wulff, FDB (Co-Operative Retail and Wholesale Society of Denmark)
- Heidi Søsted, Danish Consumer Council
- Thorkild Kjær, Danish Asthma and Allergy Association

E-mail survey:

- Carl O. Thørner, Confederation of Danish Industries
- Knud Blohm, Danfoss
- Leif Christiansen, IKA – Association of Public Purchasers in Denmark
- Tonny Christensen, Danish EPA
- Ulla Lieberkind, Danish Ministry of Economic and Business Affairs
- Anita Hansen, Carli Gry International A/S
- Anne Mette Zachariassen, TEKO-center Danmark

Appendix B: List of electronics panel members

- Helen Amundsen, Danish Consumer Council
- Lone Andersen, Bang & Olufsen a/s
- Knud Blohm, Danfoss
- Leif Christensen, Trade Organisation for Consumer Electronics
- Peter W. Christensen, SPM Grøn Elektronik
- Tonny Christensen, Danish EPA
- Leif Christiansen, IKA – Association of Public Purchasers in Denmark
- Rikke Dreyer, National Procurement Denmark
- Jan Hohberg, Elektromiljø A/S
- Henrik Hvidegaard, Danish Radio and Television Retailers' Organisation
- Jørgen Jakobsen, Danish EPA (Industry Division)
- Anders Mehlsen, TDC (Environmental Management)
- Jette Baade, Danish IT Industry Association
- Ulla Lieberkind, Ministry of Economic and Business Affairs
- Michael Minter, Danish Society for the Conservation of Nature
- Jesper Thestrup, In-Jet ApS
- Carl Thørner, ITEK
- Svend Vinter-Knudsen, Danish Energy Agency

Appendix C: List of textiles panel members

- Torben Andersen, Kansas Wenaas A/S
- Aage K Feddersen, Federation of Danish Textile and Clothing
- Kenneth Wulff/Hanne Damsted Vilsbøll, FDB (Co-Operative Retail and Wholesale Society of Denmark)
- Jens Birkeholm, Danish Textile Retailers Association
- Ole Schmidt, Association of Danish Textile and Clothing Importers and Exporters
- Mary-Ann Hansen, Danish School of Art and Design
- Erik Møller, Södahl Design a/s
- Anita Hansen, Carly Gry International A/S
- Peter Holvad/Charlotte Ærthøj Lind, Dansk Supermarked
- Morten Vaabengaard, Magasin
- Heidi Søsted, Danish Consumer Council
- Anne Mette Zachariassen, TEKO-center Danmark
- Otto Klaschka, De forenede Dampvaskerier
- Tine Due Hansen, Danish Society for the Conservation of Nature
- Erling Albrechtsen, Danish Consumer Information Centre
- Annette Petersen, Valør og Tinge
- Thorkild Kjær, Danish Asthma and Allergy Association
- Annette Christiansen, Danish EPA (Industry Division)
- Ulla Ringbæk, Danish EPA (Industry Division)

Appendix D: List of goods transport panel members

- Torben Holm, Danish Freight Forwarders Association
- Michael Svane, Danish Transport and Logistics Association
- Palle Egebjerg, Danish Shippers' Council
- Mogens Bech, Danish Maritime Authority
- Bent Holm Jørgensen/Poul Bruun, International Transport Danmark
- Søren Boas, Post Denmark
- Christian Hjort, General Workers' Union in Denmark (Environmental Issues)
- Ulla Madsen, Danish Road Safety and Transport Agency
- Flemming Secher, Danish EPA (17th office)
- Robert Heidemann, Danish EPA (17th office)
- Pia Berring, Danish EPA (17th office)
- Tage Dræbye, DRÆBYE Rådgivning og Projektledelse

