

Danish exports of environmental products and consulting services within the waste sector in 1999



Danish Environmental Protection Agency

Danish Ministry of Environment and Energy

Miljønyt (Environment News)

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- No. 38: Borgernes miljørettigheder
- No. 39: Miljø og arbejdsmiljø
- No. 40: Dansk miljøeksport af produkter og rådgivningsydelser til vandsektoren 1998
- No. 41: Danish Environmental Exports of Products and Consulting Services Within the Water Sector 1999
- No. 42: Udformning af skriftlig miljøkommunikation
- No. 43: Tilrettelæggelse af miljødialog
- No. 44: Miljødialog gennem pressen
- No. 45: Miljødialog med kollegaer
- No. 46: Miljødialog med kunder
- No. 47: Katalog over midler til miljødialog
- No. 48: Miljødialog med leverandører
- No. 49: Badevandskort 2000
- No. 50: Vejen til bedre miljø ved produktion af tekstiler
- No. 51: Kriterier for prioritering af trafikstøjbekæmpelse
- No. 52: Håndbog til kommunerne om eksport af elektronisk affald
- No. 53: Håndbog i produktorienteret miljøarbejde
- No. 54: Alternatives to Methyl Bromide; Integrated Pest Management in Danish flour mills
- No. 55: Alternatives to Methyl Bromide; IMP in three typical danish flour mills
- No. 56: Håndbog om trykimprægneret træ og mulige alternativer
- No. 57: Evaluering af miljøtrafikuge 2000
- No. 58: Håndbog i miljøvurdering af produkter
- No. 59: Miljøledelse - katalog over 66 projekter
- No. 60: Dansk miljøeksport af produkter og rådgivningsydelser inden for affaldssektoren i 1999
- No. 61: Danish exports of environmental products and consulting services within the waste sector in 1999

Danish exports of environmental products and consulting services within the waste sector in 1999

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Table of contents

FOREWORD

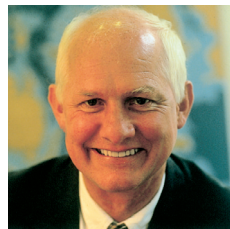
1. INTRODUCTION	6
2. SUMMARY	7
3. DANISH ENVIRONMENTAL WASTE MANAGEMENT POLICY	8
4. DANISH ENVIRONMENTAL EXPORTS TO THE WASTE SECTOR	12
4.1 PRODUCTS	12
4.2 CONSULTING SERVICES	15
5. DENMARK'S STRONG Foothold IN WASTE MANAGEMENT ..	20
APPENDIX 1. QUESTIONNAIRE STUDY	22
APPENDIX 2. EXPORTERS OF PRODUCTS TO THE WASTE SECTOR	26
APPENDIX 3. EXPORTERS OF CONSULTING SERVICES TO THE WASTE SECTOR	32

Foreword

By Svend Auken, Minister for Environment and Energy

Denmark has always been a pioneer in environmentally optimal solutions in waste management and waste treatment. As early as 30 years ago, Denmark established a unique system for collecting and treating hazardous waste.

As the first country in the world, Denmark discontinued the practice of depositing organic waste and waste suitable for incineration. Energy is generated from waste through incineration and bio-gasification. Incineration absorbs virtually all energy present in waste. Twenty per cent of the energy is used for combined production of heat and power, and this percentage is likely to increase to 25 per cent in 2004. Denmark finds it very important that waste management and waste treatment procedures are as environmentally friendly as possible, while ensuring a minimum loss of energy and resources. Waste management must also have no adverse effect on our health and safety at work.



The next few years will see Denmark commit itself to waste prevention. Economic growth does not necessarily have to lead to a rise in waste production. Individual waste fractions must be treated so that they have the lowest possible impact on the environment, while we exploit the energy and resource potential in waste. Denmark's new strategy on waste – a programme known as *Waste 21* – will set the agenda for future waste control and waste management in Denmark. The *Waste 21* programme introduces a number of new initiatives to improve waste management and enhance efficiency.

Due to waste management and waste treatment requirements, Denmark has developed systems, plants and knowhow, which all provide a platform for exports. In 1999, Danish exports of knowhow and products to the waste sector amounted to about DKK 0.5bn.

Danish waste policy boosts exports and protects the environment, while keeping waste disposal costs at a minimum in Denmark. Therefore, Denmark must unquestionably continue its current approach in waste management to the benefit of both the environment and exports.

Introduction

This study provides an overview of the volumes, geographical breakdown and nature of the Danish products and consulting services exported to the waste sector.

One aim of the study was to define the waste sector for the purpose of locating the companies that make up the Danish waste sector. In this context, the *waste sector* comprises companies supplying expertise and products to the primary waste sector, that is, companies involved in waste treatment and waste disposal as well as responsible authorities.

However, the study did not look at the interplay between Danish environmental assistance under the Environmental, Peace and Stability Framework (known as MIFRESTA) and exportation of Danish environmental equipment and knowhow to importing countries.

The study was based on a questionnaire study among waste management companies. The Danish Energy Agency previously applied the same method to the energy sector. Consequently, the environmental exports to the waste sector specified in this study overlap with the exports of energy products and energy consulting services listed by the Danish Energy Agency.

The questionnaire was sent to 51 companies. According to the respondents, 20 were exporters of products, while 9 were exporters of consulting services in 1999. This brings the total to 29 companies. Particulars about the companies are included in a catalogue of exporters (an appendix to this publication) as specified by the companies.

Summary

Danish exports of products and consulting services to the waste sector totalled almost DKK 0.5bn in 1999. Products accounted for nearly 90 per cent, while consulting services accounted for the rest.

Sixty-nine per cent of all products exported were for thermal waste treatment, 15 per cent were for accumulation, collection and transport of waste, while 12 per cent were for recycling use.

Products were mainly exported to the Asian markets (the Middle East, Asia and Japan accounted for 41 per cent) and our neighbouring countries (the Nordic region, the UK and Germany accounted for 40 per cent). The rest of Western Europe imported 16 per cent of these exports.

Five companies accounted for more than 80 per cent of all products exported.

Exports of consulting services were more evenly distributed over individual areas in the waste sector. Forty per cent concerned thermal waste treatment and slightly more than 25 per cent came within the category: “Other”, which includes environmental impact, by-product handling, services offered to authorities and the like.

The largest export markets for consulting services were Central and Eastern Europe (31 per cent), the Middle East, Japan and Asia (22 per cent), our neighbouring countries (the Nordic region, the UK and Germany accounted for 20 per cent) as well as the rest of Western Europe (13 per cent).

Like products, consulting services were exported by a handful of companies, as four exporters accounted for more than 80 per cent of all consulting services exported.



Danish environmental waste management policy

Each year Denmark produces almost 13 million tonnes of waste, including waste from energy generation, sewage treatment plants as well as building and construction activities. Put differently, each Dane produces seven kilos of waste each day of the year.

Danish environmental waste management policy is based on waste prevention as well as waste management and waste disposal. The Danish Environmental Protection Agency (EPA) is the authority responsible for waste management, while local authorities are responsible for the practical implementation of policies.



Local authorities are responsible for collecting, treating and disposing of hazardous and household waste. They must also provide the necessary facilities for treating and disposing of all waste, including incineration plants and landfill sites.

Waste management takes places according to detailed planning. All local authorities are required to map their waste volumes, draw up waste plans, prevent waste production and ensure maximum recycling of waste.

As regional planning authorities, counties are responsible for assigning land for incineration plants and landfill sites.

AIM

The overall aim of our waste management policy is to reduce waste volumes. Prevention is a top priority. Environmental management and cleaner technology allow us to reduce waste production, for example by taking waste treatment into account in product design and by using fewer products that have an adverse effect on the environment. This aspect of our product-oriented environmental policy aims at limiting the consumption of resources and reducing environmental impacts. However, our product policy is inadequate in some cases – for example

with respect to reducing industrial waste. The aim is also to recycle as much as possible. About 64 per cent of all waste is currently recycled.

Future waste management policy challenges

Waste 21 suggests a shift of focus to improve Danish waste treatment procedures environmentally. So far, Denmark has emphasised quantity waste management, waste minimisation and recycling. The focus will now also be on improving the quality of waste treatment procedures. It is considered vital to reduce the environmental impacts and optimise the use of resources, including the energy used in producing waste, the raw materials that make up the waste and the energy generated during incineration.

The quality of waste treatment procedures must be improved to allow us to minimise the dispersion of substances that have an adverse effect on the environment and to optimise the use of resources.

According to *Waste 21*, we must weigh technical, environmental and economic conditions when choosing waste treatment methods.

WASTE HIERARCHY

In the waste hierarchy, recycling is the optimal waste management method, followed by incineration (exploitation of energy) and depositing.

Recycling is the best solution, since it maximises the exploitation of waste resources.

Waste is incinerated if it cannot be recycled and if residues produced during incineration do not cause any environmental problems. Waste in Denmark is always incinerated for the purpose of exploiting energy and, increasingly, to allow combined production of heat and power.

Waste depositing is the least optimal solution because resources are not

exploited. This solution may also contaminate soil and groundwater. Waste suitable for incineration may no longer be deposited.

THE DANISH WASTE MANAGEMENT MODEL

In Denmark, EU and national regulations interact closely in the waste management area. EU regulations outline the general framework and principles, while national waste management legislation is adopted by the Folketing (the Danish parliament).

Unlike a number of countries, Denmark has chosen to handle household and industrial waste, including packaging and hazardous waste, in one waste system.

Sorting at source

The principle of sorting at source is one of the key elements of the Danish waste management model. Collection systems for some types of waste such as paper, cardboard and glass are based on sorting at source, and both people and companies use and support these systems.

Organisation

Unless the Danish Executive Order on Waste Management lays down specific requirements, local authorities are free to decide how to handle and dispose of waste. Some of the major local authorities have chosen to handle and treat waste themselves, while the vast majority of local authorities have formed joint waste management companies.

The main plant for hazardous waste disposal, Kommunekemi, as well as landfill sites and incineration plants are all owned or controlled by public authorities. Collection of household waste is handled by local authorities, but is often outsourced to private contractors. Typically, they also handle collection of industrial waste. Moreover, private contractors are actively engaged in handling and processing waste for recycling purposes.

Covering most local authority areas in Denmark, a network of receiving stations has been established for hazardous waste handling. A few local authorities handle hazardous waste themselves.

A range of instruments

The Danish waste management model combines conventional administrative instruments (acts, orders and circulars) and a variety of economic instruments in the form of taxes, duties, fees, subsidy schemes and agreements.

WASTE SECTORS AND WASTE FRACTIONS

Waste can be classified in several ways. One is to break down waste into waste-producing sectors. This gives the following breakdown of Danish waste production:

- Building and construction (24 per cent)
- Households (24 per cent)
- Trade, offices and institutions (8 per cent)
- Industry (21 per cent)
- Power stations, sewage treatment plants and incineration plants (23 per cent)



Waste from one specific sector is often characteristically distinct from that of other sectors. So, handling procedures and collection systems are typically adapted to each sector and its specific waste.

Another way is to break down waste into different types or fractions. Examples of such waste fractions are paper, cardboard, glass, packaging plastics, tires as well as electric and electronic products. The individual waste fractions have certain physical characteristics or qualities that make separate treatment favourable both economically and environmentally or in terms of resources. Several types of waste, which were previously incinerated or deposited, are now collected and treated individually.

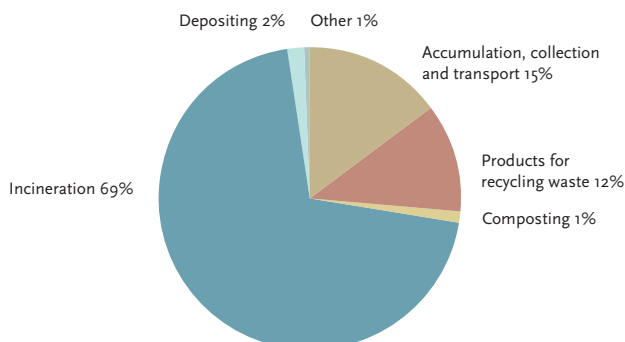
Danish environmental exports to the waste sector

4.1 PRODUCTS

In 1999, Danish exports of products to the waste sector totalled DKK 427m. Sixty-nine per cent of environmental exports were products for thermal waste treatment such as plants for incinerating mixed non-hazardous waste, very hazardous waste or clinical risk (hospital) waste. Products also included plants for sludge drying and sludge incineration as well as grating systems and furnace and boiler plants.

Fifteen per cent of products exported were for accumulation, collection and transport of waste such as stands and sacks, bins and containers, compactor containers, carts, transfer stations, collection trucks, etc.

PRODUCTS EXPORTED TO THE WASTE SECTOR IN 1999



Twelve per cent were products used for recycling waste such as plants and equipment for mixed waste shredding, organic household waste, garden and park waste as well as concrete and other building waste. These products also included equipment for other handling, pretreatment or processing of waste fractions.

The remaining 4 per cent of products exported to the waste sector were for composting, depositing, etc. None of the companies participating in this study exported products for soil decontamination.

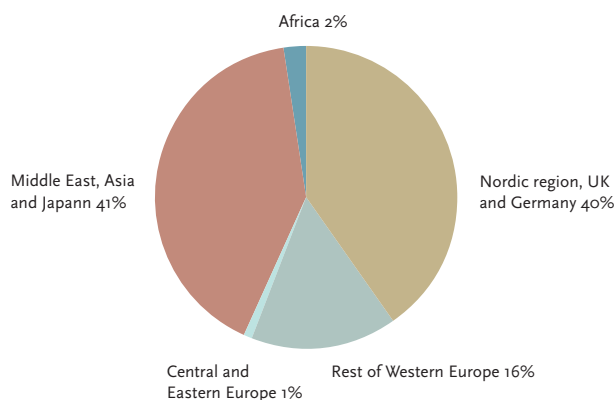
EXPORT MARKET BREAKDOWN

Above all, Danish exports of products to the waste sector were targeted at two main markets.

Forty-one per cent of products were exported to the Asian market (the Middle East, Asia and Japan).

Forty per cent were exported to our neighbouring countries (the Nordic region, the UK and Germany), while 16 per cent were sold to the rest of Western Europe.

EXPORT MARKETS IN 1999



The remaining 3 per cent of products went to Central and Eastern Europe as well as Africa. Virtually no products were exported to the American and Australian continents.



INDIVIDUAL EXPORT MARKETS

Exports to the two large main markets break down differently.

Almost all exports to the Asian market (97 per cent) were products for thermal waste treatment.

Exports to our neighbouring countries consisted of a variety of types: products for incineration (51 per cent), products for accumulation, collection and transport of waste (32 per cent) and products for recycling waste (12 per cent).

Products exported to the rest of Western Europe in 1999 break down into products for incineration (43 per cent), products for recycling waste (42 per cent) and products for accumulation, collection and transport of waste (8 per cent).

EXPORTER BREAKDOWN

In 1999, five companies accounted for more than 80 per cent of all waste treatment products exported to the waste sector.

They were:

- Babcock & Wilcox Vølund AS (incineration plants)
- Bramidan A/S (waste compactors)
- ENVIKRAFT A/S (special incineration of clinical risk and hazardous waste)
- Niro Separation A/S (waste shredders)
- Trioplast Nyborg A/S (plastic sacks)

According to this study, the remaining 15 companies exporting products to the waste sector in 1999 accounted for less than 20 per cent of total exports.

PRODUCTS EXPORTED TO THE WASTE SECTOR IN 1999

1999 export sales [DKK '000]	Accumulation, collection and transport	Products for recycling waste	Composting	Incineration	Depositing	Soil cleaning	Other	Total	%
Nordic region, UK and Germany	55,678	21,051	1,110	88,006	5,135	-	800	171,780	40
Rest of Western Europe	5,543	28,022	3,900	28,549	591	-	-	66,605	16
Central and Eastern Europe	168	-	-	3,562	75	-	-	3,805	1
Middle East, Asia and Japan	1,732	-	-	168,920	2,026	-	1,558	174,236	41
Africa	-	400	-	10,000	-	-	-	10,400	2
Central and South America	-	-	-	-	-	-	-	-	-
USA, Canada and Australia	62	-	-	-	-	-	-	62	-
Total	63,183	49,473	5,010	299,037	7,827	-	2,358	426,888	
%	15	11.5	1	70	2	-	0.5		100

4.2 CONSULTING SERVICES

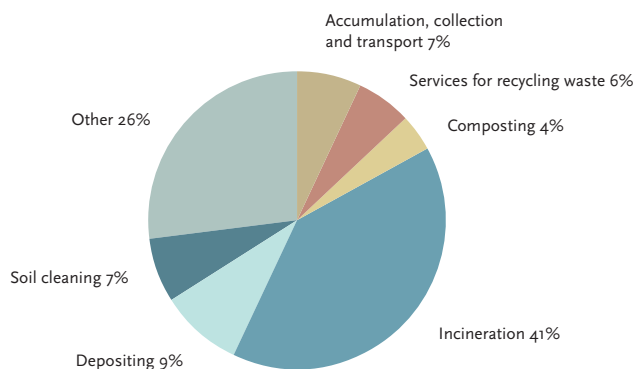
In 1999, Danish exports of consulting services to the waste sector totalled DKK 64m.

DIFFERENT TYPES OF CONSULTING SERVICES

Twenty-five per cent of consulting services were not related to individual waste treatment processes, but to the category “Other”, which covers services offered to authorities, by-product handling, environmental impact and the like.

Forty per cent of consulting services were related to thermal waste treatment.

CONSULTING SERVICES EXPORTED TO THE WASTE SECTOR IN 1999



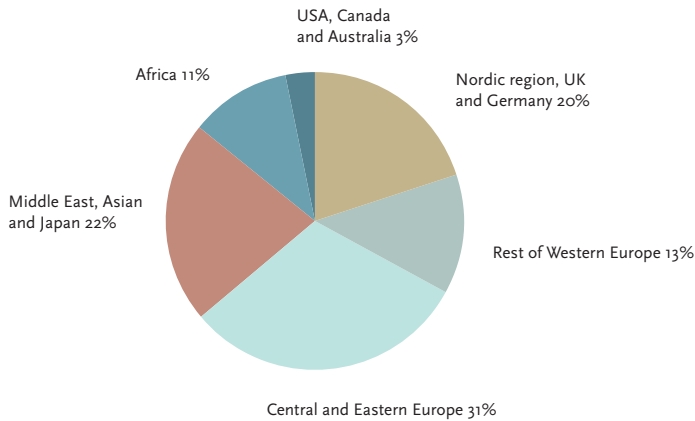
The remaining one-third of consulting services break down as follows:

- 9% Depositing
- 7% Accumulation, collection and transport
- 7% Soil cleaning
- 6% Services for recycling waste
- 4% Composting

EXPORT MARKET BREAKDOWN

In 1999, Central and Eastern Europe constituted the largest market for consulting services, accounting for 31 per cent of all consulting services exported. The Nordic region, the UK and Germany accounted for an additional 20 per cent and the rest of Western Europe for 13 per cent.

EXPORT MARKETS IN 1999



The remaining 36 per cent of services were exported to:

- 22% The Middle East, Asian and Japan
- 11% Africa
- 3% The USA, Canada, Australia and other countries

No consulting services were exported to Central and South America.

INDIVIDUAL EXPORT MARKETS

Central and Eastern Europe accounted for DKK 2-4m in each of the seven categories of consulting services. However, services exported to our neighbouring countries (the Nordic region, the UK and Germany) comprised only services for thermal waste treatment. Services sold to the rest of Western Europe were mainly services in the category “*Other*”.



EXPORTER BREAKDOWN

In 1999, four companies accounted for more than 80 per cent of all waste treatment services exported to the waste sector:

- Chemcontrol A/S
- COWI A/S
- Hedeselskabet
- Rambøll

According to this study, the remaining five companies exporting consulting services to the waste sector in 1999 accounted for less than 20 per cent of total exports.

CONSULTING SERVICES EXPORTED TO THE WASTE SECTOR IN 1999

1999 export sales [DKK '000]	Accumulation, collection and transport		Services for recycling waste		Composting	Incineration	Depositing	Soil cleaning	Other	Total	%
Nordic region, UK and Germany	4	4	4	11 851	4	1 225	-	13,092	20		
Rest of Western Europe	196	196	196	100	466	-	7,282	8,436	13		
Central and Eastern Europe	2,123	2,842	1,842	3,400	3,842	2,731	3,200	19,980	31		
Middle East, Asia and Japan	1,560	228	328	8,594	1,128	192	2,002	14,032	22		
Africa	124	24	24	2,000	184	-	4,600	6,956	11		
Central and South America	-	-	-	300	-	-	-	300	1		
USA, Canada and Australia	379	379	379	-	414	63	-	1,614	2		
Total	4,386	3,673	2,773	26,245	6,038	4,211	17,084	64,410			
%	7	6	4	41	9	6.5	26.5	100			

Denmark's strong foothold in waste management

Denmark is a pioneer in waste management. Thirty years of experience in meeting ever-increasing waste treatment and waste disposal requirements have made Danish companies highly qualified in waste management. Moreover, for more than 15 years, local authorities in Denmark have been responsible for planning and providing adequate infrastructure for disposing of all types of waste, both household and industrial. In future, Denmark's waste management strategy will focus on even better use of the resources present in waste and on better waste quality, including waste minimisation.

Several key areas of Denmark's waste management strategy have served to inspire common EU regulations. Danish companies have thus gained a strong export foothold. Danish industry can capitalise on its experience and expertise particularly in Central and Eastern European countries, which must comply with EU legislation in order to obtain EU membership.

Waste management unites companies and public authorities, and this gives Danish consulting firms a leading edge. One advantage is that Danish consulting firms have a solid basis for providing knowhow, master planning and institutional setup both nationally, regionally and locally.

Danish consulting firms possess adequate building and construction knowhow as well as experience, not only in design and planning, but also in regard to requirement specifications for a wide selection of plant and site types. Denmark can boast suppliers in almost any product area, be it collection and transport equipment, different types of shredders and compactors, composting plant equipment, biogas plants, incineration plants or landfill membranes.

Incineration is an area in which Danish companies can supply virtually any equipment from grates and boilers to flue gas purification systems. The strong foothold in incineration plants is firmly rooted in Denmark's

deliberate choice to incinerate waste and exploit the energy obtainable in waste suitable for such incineration. Furthermore, a number of companies in Denmark are also able to supply both individual equipment and entire systems. A few Danish suppliers are even in a position to provide turnkey incineration plants capable of disposing of both hazardous and high-risk waste.



Finally, Denmark seems to have a strong position in biogas waste management. The reason is that Danish companies are leading-edge suppliers in this area, particularly because of their knowhow accumulated through the treatment of liquid manure and different industrial residue products from sectors such as the food industry.

APPENDIX 1

QUESTIONNAIRE STUDY

DEFINING THE WASTE SECTOR

Environmental issues are often presented under headlines such as air pollution, water contamination and waste. Sometimes, issues like noise, nature protection and soil contamination are also included. All these issues are commonly believed to relate to specific sectors.

However, in the case of the waste sector, things are quite the opposite. In its publications, the Danish EPA refers to waste treatment companies, that is, a sector defined on the basis of the raw materials processed. This is contrary to statistics describing society, as they define sectors and trades on the basis of the goods manufactured.

Definition depends strongly on this aspect, as 64 per cent of all waste produced in 1997 was recycled, 24 per cent incinerated, 12 per cent deposited, while 1 per cent underwent special treatment according to the Danish EPA. In general statistics that describe society, it makes no difference whether a company produces steel on the basis of waste metal or iron ore, uses waste paper for paper pulp manufacturing or residue products from power stations as filler material in its concrete production. What matters is the finished product sold by the company.

It is important to recognise that waste is any substance, material or product that a manufacturer regards as unwanted; that is, something that the manufacturer considers to have poor value and therefore wants to dispose of. But it may represent valuable raw or filler material to another manufacturer.



The core of the waste sector

The core of the waste sector consists of companies that handle or treat waste for the purpose of producing useful finished goods or reducing the effects that are harmful to nature. According to DB93 (Dansk Branchekode 1993 – an industrial classification of all economic activities in Denmark issued by Statistics Denmark), these companies chiefly operate in few specific sectors:

37.1000/37.2000 Recycling of metal/non-metal waste and scrap: This subsector is part of the manufacturing sector. Companies in this sector process new or used products for the purpose of changing them into raw materials. Products are characterised by the basic material being either sorted or unsorted goods unsuitable for direct application in any industrial process. Finished goods are treated for further processing and can thus be considered semi-manufactures. Mechanical or chemical processing is required for a product to be included in this sector classification. The notes to DB93 list a number of exemptions such as treatment of waste products from food, beverages and tobacco, yarn spinning on the basis of napped textiles, paper pulp production on the basis of waste paper, retreading, production of material from metal waste products as well as ship and car breaking.

51.5700 Wholesale trade in waste and scrap: This subsector is part of the wholesale trade sector. It includes collection, sorting, packing, trade and the like without any industrial processing. The notes specify that car breaking is comprised by this sector classification.

90.0020 Collection and disposal of refuse: This subsector is part of the private or public service sector. It includes collection and transport of waste, emptying publicly placed containers, rental of waste containers to households, road/street sweeping and flushing, snow and ice clearing, salting and gritting and the like.

90.0030 Refuse dumps and refuse disposal plants: This sector includes disposal of waste through incineration, depositing or other disposal such as crushing, dumping, burial or ploughing, treatment and destruction of toxic waste, including soil decontamination (one example is Kommunekemi).

SECONDARY WASTE TREATMENT

However, waste treatment increasingly occurs outside these sectors. This applies especially to the recycled part of all waste (64 per cent).

Manufacturing as well as building and construction companies treat waste during their day-to-day production simply because it is financially profitable or because it is a statutory requirement. Specific waste fractions such as iron and metal, paper and cardboard, food waste, concrete, asphalt, soil and rock are being recycled. Furthermore, 24 per cent of all waste incinerated or used for generating electricity and district heat, is classified as energy products (the energy sector).

SUPPLIERS OF CORE WASTE TREATMENT PRODUCTS AND SERVICES

Some of the equipment supplied to foreign waste treatment companies includes general components used for the construction and building of plants. The following specialised articles are used directly by the waste sector:

Balers	Refuse sacks/bins
Compactors	Food waste disposal units
Waste shredders	Collection trucks
Composters	Special lifts/hoists
Windrow turners	Lifting and draining systems
Special sorting plants	Shredding plants
Waste racks	Sludge treatment plants
On-site soil cleaning plants	Plants for incinerating hazardous waste
Waste oil tanks	Mobile equipment for crushing
Special containers for bottles and paper, for example	concrete, asphalt and rock

QUESTIONNAIRE STUDY

Questionnaire forms were sent to companies (on Confederation of Danish Industries (CDI) and Danish Council of Consultancy Architects and Engineers (DCCAE) business paper), while Analyseinstituttet VIBY made the statistical evaluation.

On the basis of previous experience in similar studies, the number of respondents was reduced to a small number of companies selected by the CDI, DCCAE, DAKOFA and consultant Ejvind Mortensen, who is well versed in this sector.

As shown in the following table, the effective sample consisted of 51 companies. In addition to receiving a written reminder, all companies that did not respond were reminded by telephone and sent another copy of the questionnaire, if needed. Companies that did not respond after the second reminder were registered as non-respondents. The response rate was 82 per cent. The response rate of product exporters was extremely high at 94 per cent, while that of exporters of consulting services was 61 per cent. Yet, all major companies providing consulting services responded, meaning that the response rate in this area had little impact on the results of the questionnaire study in practical terms.

NUMBER OF COMPANIES IN THE SAMPLE AND FINAL RESULTS

	Products	Consulting services	Total
Original number of respondents	35	18	53
Respondents unknown	2	0	2
Effective sample	33	18	51
Non-respondents	2	7	9
No exports in 1999	11	2	13
With exports in 1999	20	9	29
Response rate	94%	61%	82%

APPENDIX 2.

EXPORTERS OF PRODUCTS TO THE WASTE SECTOR

BABCOCK & WILCOX VØLUND AS	
<p>Falkevej 2 DK-6705 Esbjerg Ø</p> <p>Telephone: +45 7614 3400 Telefax: +45 7614 3600 Homepage: www.volund.dk</p>	<p>For more than 100 years, the company has been engaged in sales, design work, engineering, installation and services in respect of environmental, biomass and other energy/steam plants, including full-scale services for CHP plants and the supply of boilers to the paper industry.</p> <ul style="list-style-type: none"> • Waste-to-energy systems • Biomass energy systems • Fossil fuel systems • Fluidised bed systems • After-sales services
BRAMIDAN A/S	
<p>Industrivej 69 DK-6740 Bramming</p> <p>Telephone: +45 7517 3266 Telefax: +45 7517 3177 bramidan@bramidan.dk Homepage: www.bramidan.com</p>	<p>Bramidan A/S is one of the largest manufacturers of balers in the European market. Balers are used by retail and manufacturing industries to separate waste at source and to compact packaging waste.</p> <ul style="list-style-type: none"> • Balers • Waste compactors • Tipping systems • Materials handling
EURO-MILJØTEKNIK	
<p>Sverigesvej 20 DK-8660 Skanderborg</p> <p>Telephone: +45 8651 2116 Telefax: +45 8651 2119 E-mail: mail@euromt.dk Homepage: www.euromt.dk</p>	<p>EURO-Miljøteknik manufactures and markets systems for handling and treating waste. EURO-Miljøteknik's compaction systems for cardboard, plastics and metal can handle unprocessed products. Due to its compact design, the system can easily be placed close to production facilities.</p> <ul style="list-style-type: none"> • Waste systems designed for urban installation • Deposit systems for hazardous chemicals and oil products • Waste compaction systems • Waste containers (plastics or metal)

MASKINFABRIKKEN RUNI APS

<p>Industriparken 8 DK-6880 Tarm</p> <p>Telephone: +45 9737 1799 Telefax: +45 9737 3800 E-mail: runi@runi.dk Homepage: www.runi.dk</p>	<p>Worm compactors for polystyrene, cans, paper, plastic bottles, textiles, etc. These compactors can separate liquids from packaging. Drain reject. Hydraulic briquetting plant for compacting saw dust, lint, paper, straw, bark, etc. No binding agent.</p> <hr/> <ul style="list-style-type: none"> • Polystyrene compactor • Waste compactors • Dewatering compactors • Worm compactors • Hydraulic briquetting plant
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MICODAN A/S

<p>Industrimarken 4 DK-9530 Støvring</p> <p>Telephone: +45 9837 2700 Telefax: +45 9837 3885 E-mail: micodan@post.tele.dk Homepage: www.micodan.dk</p>	<p>Micodan A/S was established in 1965. It manufactures open and closed steel waste containers, compactors, transfer stations, chemical stations and other equipment for depositing recycled material and waste. Micodan is market leader in the Nordic countries.</p> <hr/> <ul style="list-style-type: none"> • Steel waste containers • Environmental containers • Waste compactors • Transfer stations • Hydraulic lifts
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RENO-CON

<p>Stæremosen 49 DK-3250 Gilleleje</p> <p>Telephone: +45 4835 4246 Telefax: +45 4830 3411 E-mail: hydrocon@post4.tele.dk Homepage: www.reno-con.dk</p>	<p>Reno-Con is a manufacturer and supplier of refuse-handling equipment such as standalone garbage chutes, "Redrop" garbage chute sorting systems, garbage chute separation equipment for containers and a full range of refuse lifts.</p> <hr/> <ul style="list-style-type: none"> • Refuse lifts • "Redrop" garbage chute sorting systems • Container lifts • Standalone garbage chutes • Garbage chute separation equipment
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TIM ENVIRONMENT PRODUCTS A/S

Fabriksvej 13
6980 Tim

Telephone: +45 9674 7500

Telefax: +45 9674 7510

E-mail: post@timenvipro.dk

Homepage: www.timenvipro.dk

Tim Environment Products A/S was founded in 1996 through acquisition of a range of environmental activities. The company develops and markets equipment for treating organic waste for recycling purposes.

- Equipment and machinery for waste handling
- Shredding and separation of waste
- Aeration of compost and soil in windrows
- Closed composting of household waste
- Consulting services in organic waste management

ACTA MASKINFABRIK A/S

Industrivej 9

DK-5260 Odense S

Telephone: +45 6617 6100

BATES KORSNÄS A/S

Stigsborgvej 36

DK-9400 Nørresundby

Telephone: +45 9632 3232

Homepage: www.korsnas-pacckaging.com

BIOSCAN A/S

Tagtækkervej 5

DK-5230 Odense

Telephone: +45 6615 7071

Homepage: www.bioscan.dk

BROVST BLIKVAREFABRIK OG VARMGALVANISERINGSANSTALT

Faldborggade 11-13
DK-9460 Brovst
Telephone: +45 9823 1233

DANSK ROTATIONS PLASTIC APS

Ny Vordingborgvej 53
DK-4771 Kallehave
Telephone: +45 5538 0102

ENVIKRAFT A/S

Topstykket 18
DK-3460 Birkerød
Telephone: +45 4582 6161
Homepage: www.envikraft.dk

FLS MILJØ A/S

Ramsingvej 30
DK-2500 Valby
Telephone: +45 3618 1100
Homepage: www.flsmilj.dk

MIL-TEK A/S

Rejkjervej 2
DK-6990 Ulfborg
Telephone: +45 9675 8000
Homepage: www.miltek.dk

NIRO INDUSTRIES A/S

Vejlevej 5
DK-8700 Horsens
Telephone: +45 7626 6400
Homepage: www.niroindustries.dk

TRIOPLAST NYBORG A/S

Tåsingevej 1
DK-5800 Nyborg
Telephone: +45 6331 3000

MONARFLEX A/S

Marielundsvej 39-43
DK-2730 Herlev
Telephone: +45 4494 3555
Homepage: www.monarflex.dk

SCANITECH A/S HPE-SERVICE

Nordbakken 7
DK-5750 Ringe
Telephone: +45 6262 1840

SIMON MOOS MASKINFABRIK A/S

Nordbakken 7
DK-5750 Ringe
Telephone: +45 6262 1840
Homepage: www.simonmoos.dk

APPENDIX 3.

EXPORTERS OF CONSULTING SERVICES TO THE WASTE SECTOR

CHEMCONTROL A/S	
<p>Lindholmvej 3 DK-5800 Nyborg</p> <p>Telephone: +45 6331 1150 Telefax: +45 6531 7497 E-mail: mail@chemcontrol.com Homepage: www.chemcontrol.dk</p>	<p>Chemcontrol A/S is an international consulting firm and supplier in the field of hazardous waste management. Chemcontrol has provided services in more than 45 countries worldwide. Chemcontrol is a subsidiary of Kommunekemi A/S, the main treatment plant for hazardous waste in Denmark.</p> <ul style="list-style-type: none"> • Consulting services in hazardous waste management • Design of hazardous waste management plants • Operational assistance • Container-based incineration systems
COWI A/S	
<p>Parallelvej 15 DK-2800 Lyngby</p> <p>Telephone: +45 4597 2211 Telefax: +45 4597 2212 Homepage: www.cowi.dk</p>	<p>COWI A/S is a leading consulting firm independent of suppliers and contractors. COWI focuses on the added value that our consulting services give to our customers and society at large. COWI is a sound and healthy company based in Denmark.</p> <ul style="list-style-type: none"> • Solid waste management • Landfill sites • Waste treatment, disposal and recycling • Hazardous waste management • Incineration
DANWASTE CONSULT A/S	
<p>Kløvermarksvej 70 DK-2300 Copenhagen S</p> <p>Telephone: +45 3266 1866 Telefax: +45 3266 1881 E-mail: danwaste@inet.uni2.dk</p>	<p>Danwaste Consult A/S is a network organisation providing consulting services in solid waste management, promoting the Danish waste management model on the basis of the waste management system used by the City of Copenhagen.</p> <ul style="list-style-type: none"> • Waste management planning and regulation • Collection, recycling and treatment • Education and training • EMAS (environmental management systems) • TQM (total quality management)

KAMPSAX A/S

Stamholmen 112
DK-2650 Hvidovre

Telephone: +45 3639 0700

Telefax: +45 3677 2829

E-mail: kampsax@kampsax.dk

Homepage: www.kampsax.dk

KAMPSAX A/S is an international multi-disciplinary consulting firm. Services include studies and planning of highly complex engineering, environmental and management projects.

- Feasibility studies
- Waste-collection methods
- Waste handling and disposal
- Organisational development
- GIS applications

RAMBØLL

Teknikerbyen 31
DK-2830 Virum

Telephone: +45 4598 8300

Telefax: +45 4598 8520

E-mail: jh@ramboll

Homepage: www.ramboll.dk

RAMBØLL provides waste management consulting services in areas such as waste prevention and waste disposal. RAMBØLL is one of the world's leading consultants in waste-to-energy solutions.

- Waste planning and administration
- Waste minimisation
- Waste handling and disposal
- Waste-to-energy solutions and biological treatment
- Landfill deposits

CARL BRO INTERNATIONAL AS

Granskoven 8
DK-2600 Glostrup
Telephone: +45 4396 8011
Homepage: www.carlbro.dk

ECONET AS

Klampenborgvej 239, 4
DK-2800 Lyngby
Telephone: +45 4588 2096

HEDESELSKABET

Klostermarken 12
DK-8800 Viborg
Telephone: +45 7228 1000
Homepage: www.hedeselskabet.dk

LFG CONSULT

Houkjarshøjen 9
DK-8800 Viborg
Telephone: +45 8667 3210
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Danish Ministry of Environment and Energy

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