

Topic report 8/2001

# Waste

## Annual topic update 2000

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# 1. Introduction

This report outlines the objectives and results of the European Topic Centre on Waste during 2000, the last year of the Topic Centre's three-year agreement period.

## 1.1. The European Environment Agency

The European Environment Agency (EEA) was established in 1990 by a Council regulation of the European Union. The regulation laid down a number of tasks for the Agency and foremost among these is the establishment, development and coordination of a network for collecting, processing and analysis of environmental data — EIONET (the European environmental information and observation network). Consequently the Agency can be seen as the centre of a network covering all member countries but also linking countries together and regularly delivering comprehensive environmental reports covering pressures, vulnerability and impacts on the environment. EEA aims to support sustainable development and to help achieve significant and measurable improvement in Europe's environment through the provision of timely, targeted, relevant and reliable information to policy-making agents and the public.

## 1.2. The European Topic Centre on Waste (ETC/W)

The European Topic Centre on Waste (ETC/W) was appointed by the Agency in June 1997 for a three-year period. It was established with the aim of acting as a centre of expertise for use by the Agency in support of its mission and, specifically, to undertake part of its multiannual work programme.

The Topic Centre is led by a joint venture between the Danish Environmental Protection Agency and the Environmental Protection Agency of the City of Copenhagen.

In February 2000, Birgit Munck-Kampmann took over as leader of ETC/W from Kim Michael Christiansen. The contact address of the topic centre is:

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ETC/W is a consortium of five European organisations, each with a representative on its Management Committee, which is chaired by the ETC leader. Each partner is accountable to the ETC leader for the satisfactory execution of the work programme.

The following organisations together with the Danish lead organisation constitute the topic centre on waste:

- ABAG-itm, Baden-Württemberg, Germany
- Umweltbundesamt — Federal Environment Agency, Austria
- Irish Environmental Protection Agency
- Junta de Residus, Catalonia, Spain

Additionally, representatives from the European Commission (the Environment DG and Eurostat) participate as observers. Partner details are listed in Annex 1.

### **1.3. National reference centres for waste**

In order for the ETC/W to execute its tasks, a close cooperation with all member countries of the Agency is required. This cooperation is being established and developed through EIONET, and in particular the national reference centres for waste.

The reference centres on waste are appointed and funded by member countries and are in charge of collaboration with their national focal points and ETC/W to cover various topics. National reference centres are the regular collectors and suppliers of environmental data and information. A full list of national reference centres for waste is given in Annex 2.

Further information on the Topic Centre's contact with European organisations can be found on its web site <http://www.etc-waste.int/>, from where it is also possible to obtain relevant data and information on various aspects of waste for Europe. Another source of information on the European level is the European Environment Agency's web site: <http://www.eea.eu.int>.

## 2. ETC/W work programme

The following table provides an overview of the ETC/W work programme. A more detailed description of the main work in 2000 follows in Section 3.

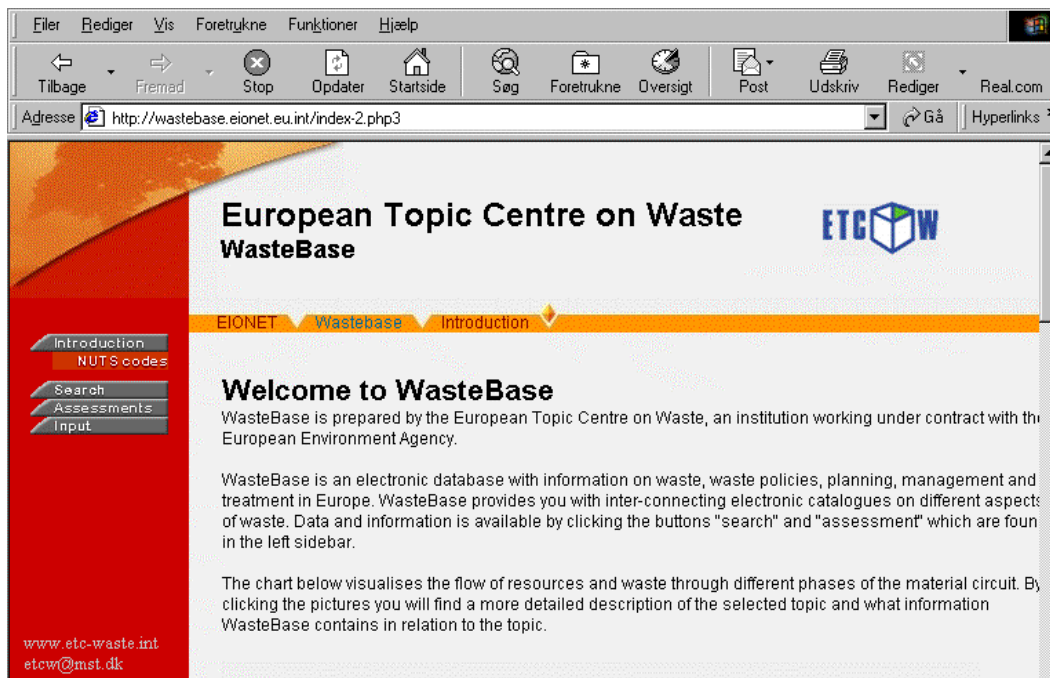
<b>2000 work plan — tasks and objectives</b>
<p><b>Data availability and comparability</b></p> <p><b>Objective:</b> to provide a harmonised set of data on all major waste flows in EEA member countries, giving precise definitions on issues addressed in order to secure reliable information on waste as a basic requirement for political decision-making.</p>
<p><b>Projection, scenarios and assessment</b></p> <p><b>Objective:</b> to develop a method in order to establish a basis for making projections of future waste arisings and to formulate scenarios depending on the economic development and technical changes.</p>
<p><b>Dangerous substances in waste</b></p> <p><b>Objectives:</b> to provide documentation on the dangerous substances contained in waste streams and how emissions to the environment can be minimised.</p>
<p><b>Database on hazardous waste management facilities</b></p> <p><b>Objectives:</b> to develop a database of recovery and safe disposal facilities in EEA member countries, containing data on type, location and capacity of these facilities, giving additional information about permits, environmental management and pollution control systems and allowing an assessment of transfrontier shipment of wastes.</p>
<p><b>Documenting waste management practices</b></p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• to provide a thorough documentation of waste management practices in all member countries;</li> <li>• to provide an overview of the administrative structures in all member countries in relation to obligations established by EU directives on waste;</li> <li>• to analyse the effectiveness and the transferability of the waste management plans/schemes and relate them to EU directives and the EU strategy on waste.</li> </ul>
<p><b>Documenting waste minimisation practices</b></p> <p><b>Objectives:</b></p> <ul style="list-style-type: none"> <li>• to provide information on instruments already existing at national and international centres on waste minimisation in order to support the development of waste prevention strategies;</li> <li>• to assess the effectiveness and the transferability of waste prevention schemes relative to EU directives and the EU strategy on waste.</li> </ul>
<p><b>Contribution to EEA reporting</b></p> <p><b>Objective:</b> to contribute to assessment reports, analysing relevant environmental themes at European level in relation to the main sources and driving forces, making use of data and information available from Eurostat, OECD, Basel Convention databases and other information and knowledge available within the ETC/W.</p> <p>As part of the overall objective, the ETC/W supports the EEA in the development of environmental signals and considers the most appropriate indicators for inclusion in the periodic reporting of the state and progress of key waste management related issues.</p>

## 3. Progress during 2000

### 3.1. WasteBase

WasteBase is an electronic database with information on waste, waste policies, planning, management and treatment of waste in Europe.

During 2000, WasteBase was developed as an Internet application, and data and information from the ETC/W was uploaded. By the end of the year WasteBase was sent to EIONET partners for comments and proposals. In the beginning of 2001 WasteBase was made accessible to key users and the public from both the ETC/W and EEA web sites.



WasteBase consists of different interconnected electronic catalogues and databases containing information/data collected through the ETC work plan.

1. The catalogue of **waste management plans** gives an overview of plans notified to the Commission at local, regional and international level. For each plan, key information such as competent authority responsible for carrying out the plan, waste fractions and period of validity is available. Furthermore, structured detailed abstracts of selected plans are included. The notified waste management plans already received by the Commission cover only long-term strategies and only for a few EU Member States.
2. The catalogue on **waste management strategies and instruments** describes waste management practices in the Member States and more specifically which instrument, legislative as well as economic, the Member States have decided to introduce to secure that the objectives of the strategies can be fulfilled.

3. The catalogue on **cleaner technology strategies and instruments** describes preventive approaches adopted by various Member States. The catalogue will also contain characteristics of some cleaner technology/waste minimisation schemes.
4. The catalogue on **waste minimisation and cleaner technology institutions/centres** provides information on institutions/centres that, on the basis of a continuously evolving work, can provide a free or very low-cost information service on the issue of waste management and cleaner technology. It is possible to get information from the catalogue for identification of the centres, and for a more detailed characterisation of the activities performed by the centres.
5. The database on **waste management facilities** provides information on recovery and safe disposal facilities in the EEA member countries (EU-15 and Norway, Iceland and Liechtenstein). It is possible to search for information on type, location and capacity for a single facility. At present the data is limited to hazardous waste management facilities.
6. The last part of the database contains information on **generation and treatment of waste**. The objective is to provide information on quantities of municipal waste, hazardous waste, etc, as well as on some specific issues such as treatment prices for landfilling and incineration.

WasteBase will be continually updated and expanded with new data, new information and assessment of the waste management situation in Europe.

### 3.2. Harmonised datasets

Preparation of efficient Community waste legislation and subsequent monitoring and enforcement of adopted legislation requires a thorough knowledge of the developments concerning waste generation and waste treatment in all Member States. However, due to inconsistent data, legislative initiatives as well as monitoring and enforcement of existing legislation are deemed to be less efficient than expected. The Commission as well as the Council has on several occasions acknowledged this situation.

In relation to the development of future waste statistics, it is expected that the proposal for a regulation on waste statistics will secure basic needs for a reliable system of data collection for waste, based on common terminology, definitions and classifications. The Council Working Group on Economic Questions (statistics) has, since spring 1999, negotiated and made several amendments to the Commission's original proposal from January 1999. The Council working group has reached consensus on the proposal for a regulation on waste statistics and the new proposal from the Commission will take its starting point in this consensus. The proposal is expected to pass through Council and Parliament during 2001. However, it is not expected to be operational before 2005, which is the anticipated deadline for first reporting (on data for 2003).

ETC/W contributed to the harmonisation of waste data by producing relevant reports on municipal/household wastes (topic report No 3/2000) and hazardous wastes (finalised in 2000, to be published in 2001).



In 2000 ETC/W closely examined data on construction and demolition waste, residues from coal-fired power stations, waste oils, sewage sludge and organic (biodegradable) waste. Construction and demolition waste as well as residues from coal-fired power stations represents a large part of the total waste generation and have a high potential for recycling. Organic waste, on the other hand, is interesting because a large part of it, following the recently adopted landfill directive, can no longer be landfilled. Finally, waste oils and sewage sludge were also analysed in detail (technical report: review of selected waste streams, to be published in 2001).

### ***3.2.1. Conclusions on harmonised datasets of hazardous waste***

Data for nearly all EEA member countries has been obtained (except from Liechtenstein and the UK) but the available data still needs further improvement in order to be comparable across EEA countries.

The Commission has amended the hazardous waste lists (HWL) and more waste types are today classified as hazardous. Further amendments of the list are foreseen. However, the percentage of hazardous waste that can be related to the HWL still varies remarkably between countries. Before the amendment, the amount of hazardous waste that could be related to the HWL was between 28 and 100 % for examined countries and regions. After the amendment, this amount has increased to between 39 and 100 %. As a consequence, the average across countries has increased from 68 to 80 %.

Different types of hazardous waste dominate the total hazardous waste composition in the examined countries and regions. In general, the industrial structure is important as a factor in explaining the difference between hazardous waste quantities in the different countries and regions. Significant differences exist between the respective manufacturing industries, energy production sectors and waste incineration activities. According to the NACE-codes, less than 30 % of the hazardous waste production in some countries is related to manufacturing industries, while other countries have more than 80 % of their waste coming from these sources. More detailed data is required in order to facilitate further analysis of differences between member countries.

It has proven difficult to relate hazardous waste classified according to national or regional substance orientated classifications to the HWL and the European waste catalogue. Only countries already registering hazardous waste according to the HWL have given information for this survey at the most detailed level. The reason for this difficulty is that the required information for reclassification is difficult to obtain afterwards. The implementation of the HWL will certainly improve the availability of comparable data at a more detailed level.

### ***3.2.2. Conclusions on specific waste streams***

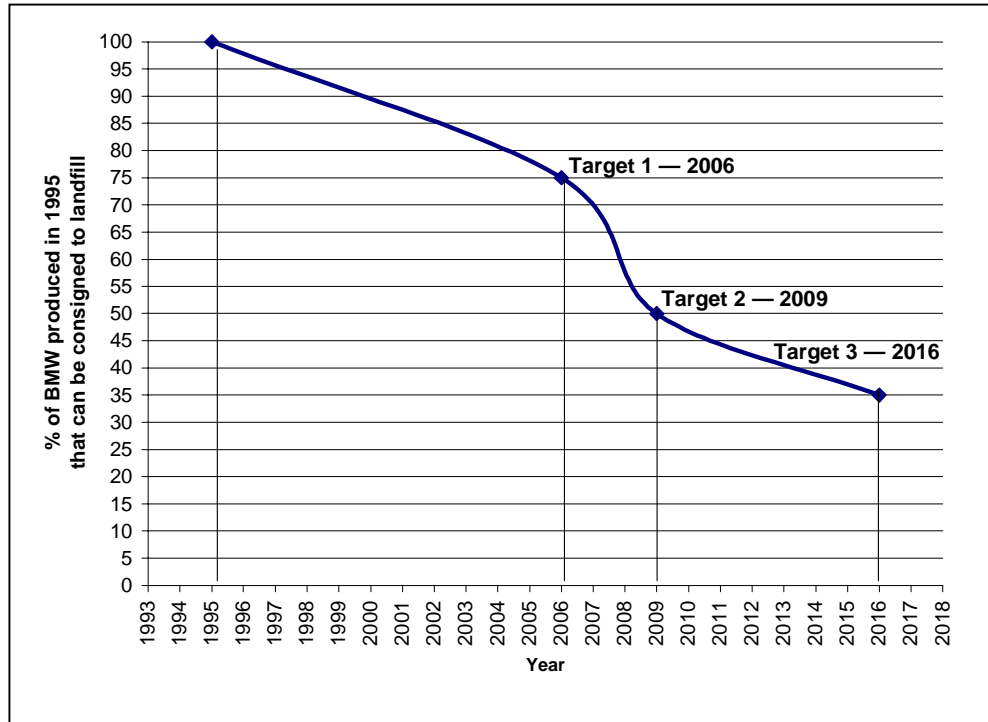
Data on the five waste streams — sewage sludge, construction/demolition waste, waste oils, waste from coal-fired power plants, biodegradable (organic) municipal waste — is available to some extent from the member countries. However, there are large variations in the data quality and years of origin.

Collection of data on specific waste streams is useful and should be continued. However, a greater emphasis should be put on the generation of harmonised and comparable datasets, thereby increasing focus on the creation of relevant information. This implies more detailed evaluations of the data quality, the waste definitions and the specific conditions in the countries.

### 3.3. Strategies and instruments for biodegradable waste

Council Directive 1999/3/EC on the landfill of waste (the landfill directive) places targets on Member States to reduce the quantities of biodegradable municipal waste (BMW) going to landfill (see Figure 1). To help countries in the implementation of this directive, ETC/W has prepared a topic report on strategies and instruments for diverting BMW away from landfill.

**Figure 1: Landfill directive targets**



**Note:** Countries that landfilled more than 80 % of their municipal waste in 1995 can extend the deadlines shown in the above diagram (by 4 years).

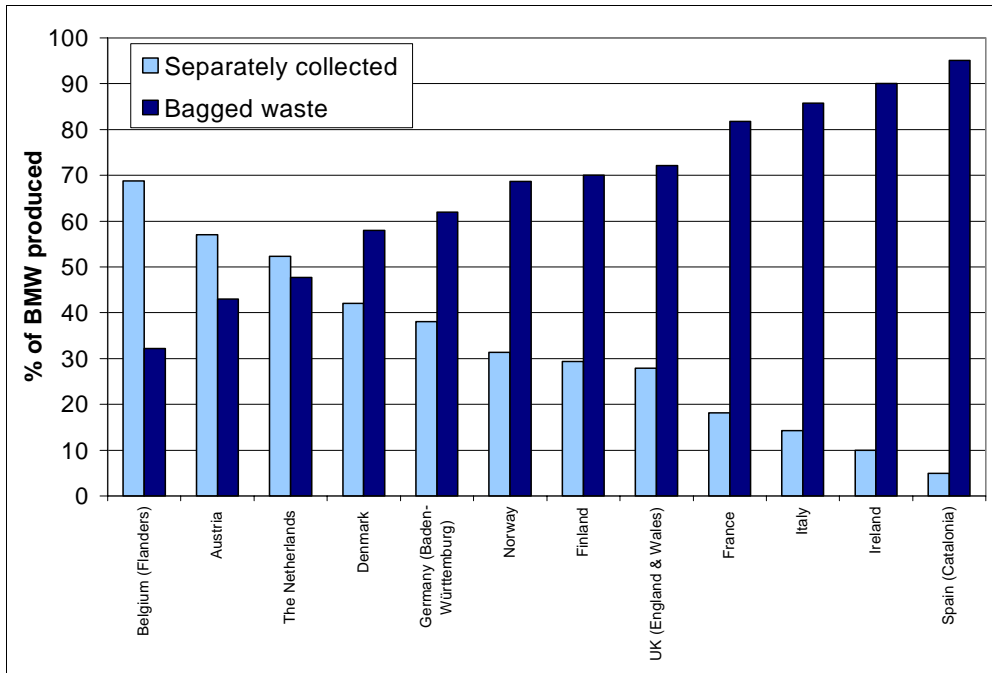
The report provides Europe-wide information on the current status of biodegradable municipal waste management and the various options available to reduce amounts going to landfill. Overall, about 66 % of recorded BMW was reported to be landfilled in 1995 in Europe with total reported production in the region of 107 million tonnes. Average BMW production per capita throughout the countries surveyed was 300 kg/annum.

Based on current performance, countries can be broadly grouped into three categories:

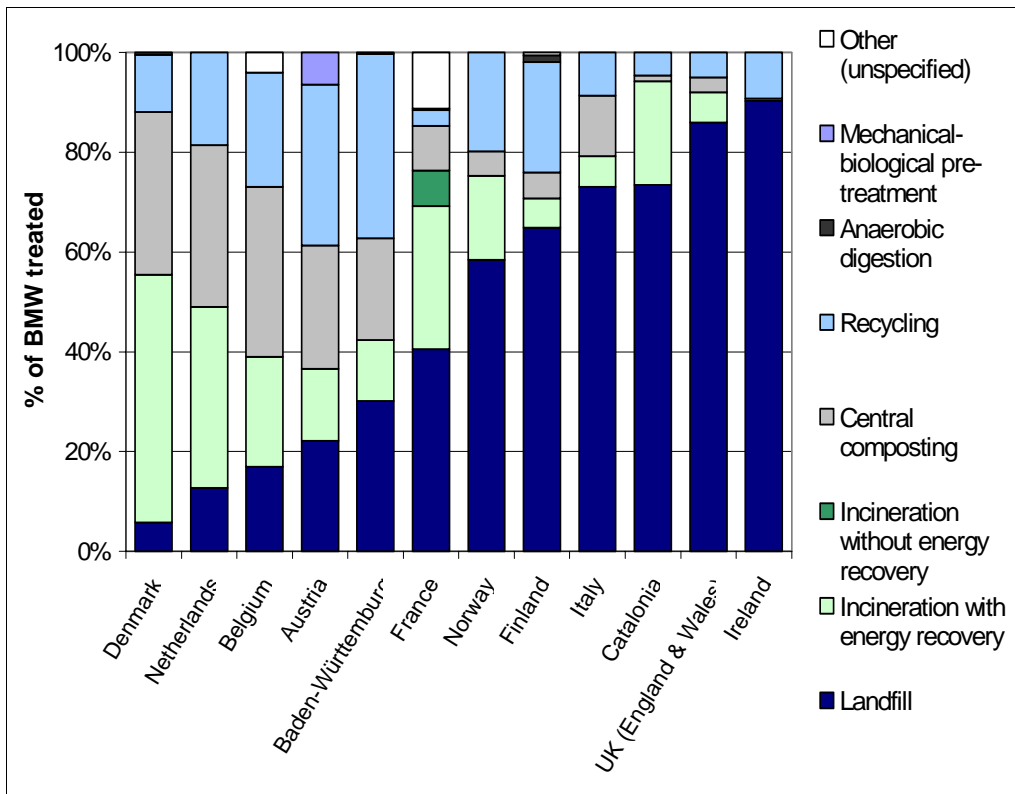
1. those that are currently landfilling less than 35 % of BMW produced (Denmark, Austria, the Netherlands and the Flemish regions of Belgium);
2. those that are currently landfilling between 35 % and 75 % of BMW produced (France, Finland, Norway, Germany and Italy) and
3. those that are currently landfilling in excess of 75 % of BMW produced (Spain, the United Kingdom, Ireland, Greece and Portugal).

As illustrated in Figures 2 and 3, BMW management practices vary significantly between countries.

**Figure 2: Collection practice in countries and regions surveyed**



**Figure 3: Management of BMW in countries and regions surveyed**



As can be seen in Figure 2, separate collection rates range from nearly 70 % of BMW produced in the Flemish region of Belgium to less than 10 % in Ireland and the Catalonian region of Spain. Generally, countries and regions with high levels of separate collection also have high levels of diversion of BMW away from landfill.

Some common strategic themes emerged during the study, which ETC/W considers to be of particular importance. These include the following.

- **The need for good quality and consistent information**  
A standard approach to tracking progress towards the landfill directive targets is needed. A standard approach to tracking BMW flow in individual countries would also be a useful tool for measuring progress towards the achievement of the targets.
- **Integrated approach to developing national strategies**  
The experience of countries and regions that have succeeded in diverting large quantities of BMW away from landfill strongly suggests that an integrated package of options is needed at national level to achieve high diversion rates. Countries with high rates of diversion of BMW away from landfill employ a combination of widespread separate collection, thermal treatment, centralised composting and material recycling.
- **Collection systems**  
The key to achieving both high landfill diversion rates and high re-use, recycling and composting rates (i.e. recovery other than energy recovery) appears to be the provision of widespread separate collection facilities, together with the availability of adequate capacity and markets for the materials recovered.
- **Treatment options**  
At present, there appears to be a relatively small number of proven treatment options available for BMW diverted away from landfill. The three principal alternatives in use at present are incineration with energy recovery, mainly of bagged waste; central composting, mainly of garden wastes; and material recycling, mainly for paper and cardboard wastes. The precise mix of treatment options chosen by a particular country or region will, to a large extent, be based on local or national conditions.
- **Availability of markets and other outlets for compost and other end products**  
When countries are drawing up their national strategies, it is vital that the question of markets and other outlets is addressed. While it is possible to put the infrastructure in place for separate collection and treatment of materials such as paper waste, garden waste and food waste, there is no guarantee that reliable and stable markets will be available for the materials produced. National planners need to be fully aware of the key importance of having adequate markets and outlets available when drawing up national strategies and plans for the diversion of BMW away from landfill.
- **Bans and restrictions on landfilling/disposal taxes**  
A key instrument available to individual countries is to impose bans or restrictions on the landfilling of specific waste streams or to tax disposal in order to make recovery a more economically viable option. Many countries have already introduced such restrictions and taxes and the particular design of these instruments very much depends on local and national social, economic and political conditions. Some countries and regions have adopted or are considering, outright bans on the landfilling of either the entire

biodegradable fraction of the municipal waste stream while others have introduced a taxation system which increases the cost of landfilling so as to make recovery options more economically viable. Perhaps the optimum approach is to have a combination of progressive restrictions on acceptance of specific waste streams at landfill together with a taxation system that increases the cost of landfilling to a point where it is no longer a financially attractive option. However, whatever approach a country chooses to take, it is essential that alternative routes be identified in advance for waste diverted away from landfill.

- **Monitoring national strategies for BMW**

The landfill directive sets out clear targets and a clear timeframe for reducing the absolute quantity of BMW being consigned to landfill. By basing the target on 1995 production figures, a clear roadmap is available for each country, provided that reliable data or, at least, agreed data, is available for BMW production in 1995, in accordance with the requirements of the directive. The net impact of future growth in BMW production, were this to happen, is that larger quantities of BMW will require treatment by routes other than landfill. It is therefore essential that, as part of its national strategy, each country sets up a monitoring and management system that will allow it to track BMW production and management on a continuous basis. Such a system would make the link between production of BMW, subsequent management and the final destination or use of materials, such as compost, produced through its management. Monitoring needs to be conducted on a continuous basis so that instruments and strategies in use to divert BMW away from landfill are regularly audited and checked for their relative effectiveness and remedial action taken where particular strategies and instruments are not working.

### **3.4. Indicator work**

The work on waste indicators in 2000 focused on the development of a core set of indicators needed for the assessment of waste and waste management policy and the preparation of the waste chapter of the yearly indicator report *Environmental signals 2001*.

#### **3.4.1. Policy questions for development of a core set of indicators**

Indicators on waste need to address the two major impacts of waste generation and management: (1) waste is a lost resource and (2) waste can be transferred into the various media, e.g. leachate from landfills, dioxin emissions from incineration, greenhouse gas emissions, etc.

In order to take appropriate actions in waste management, the responsible authorities and the general public need information and assessments. Politicians and administrators as well as the public need answers to basic questions, such as:

- from where does waste originate?
- what are the quantities and what kind of waste?
- what is the environmental impact of waste treatment methods or non-treatment?
- what can be done? (strategies and plans)

To secure consistency with the development of indicators under the EEA work programme, the concept of DPSIR assessment framework (driving force, pressure, state, impact and response) was the starting point to prioritise the selection of indicators. EU waste management policy/strategy endorses specific needs for indicators to monitor the performance in relation to the waste hierarchy and the

directives concerning specific aspects of waste treatment and generation of waste. When discussing which indicators to develop in the long term, we are to some extent constrained by the present situation as regards availability of basic data as mentioned above.

To date the main data collection at European level (e.g. joint OECD/Eurostat questionnaire) has been based on the traditional waste handling or management concepts. Further information on loss of key materials and the environmental impacts of waste handling is also required.

The developed list of required indicators is linked to priority policy questions on waste and includes an indication of data availability, data quality, position in the DPSIR framework and the needed geographical disaggregation.

### 3.4.2. Environmental signals 2001

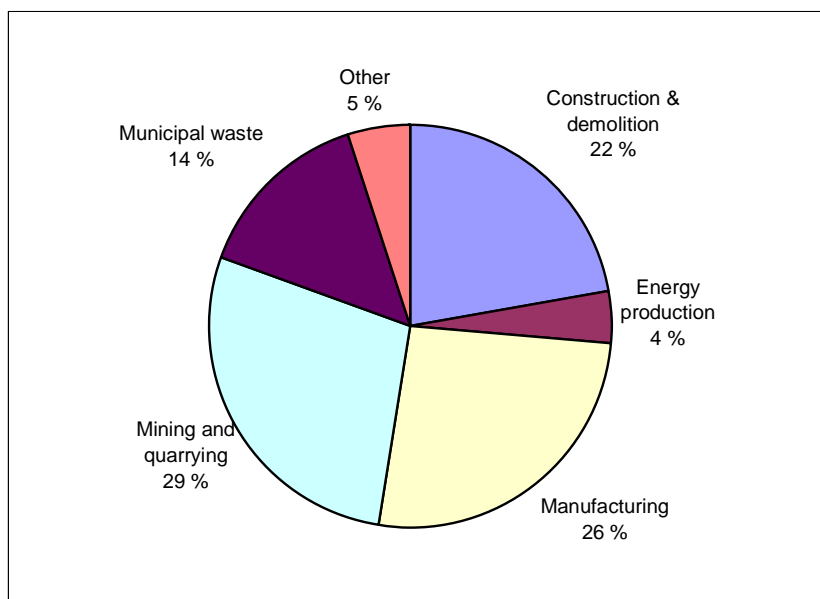
The aim of the chapter on waste in the report *Environmental signals 2001* is to produce an overview of the waste management situation within the framework of the DPSIR assessment framework for all EEA countries. However, basic data is not available for the many countries and mostly available for the smaller countries. Using available datasets could result in misleading conclusions for Europe as a whole. Since the purpose of the report is to present new tendencies in the environment, the waste chapter refers intensively to *Environmental signals 2000*. The new issues concentrate on the overall waste generation by sector, waste from daily household and commercial activities, treatment of biodegradable municipal waste (see Section 3.3 of this report) and tendencies for sewage sludge.

### 3.4.3. Key findings in Environmental signals 2001

#### Trends in total waste generation

Total generation of waste in the EU amounts to 1 300 million tonnes a year. Manufacturing, and mining and quarrying remain the main sector contributors. On the basis of the limited data, waste quantities from manufacturing seem to be constant or, in some cases, falling while those from all other sources are increasing.

Figure 4: Total waste generation by sector — EEA countries 1992–97

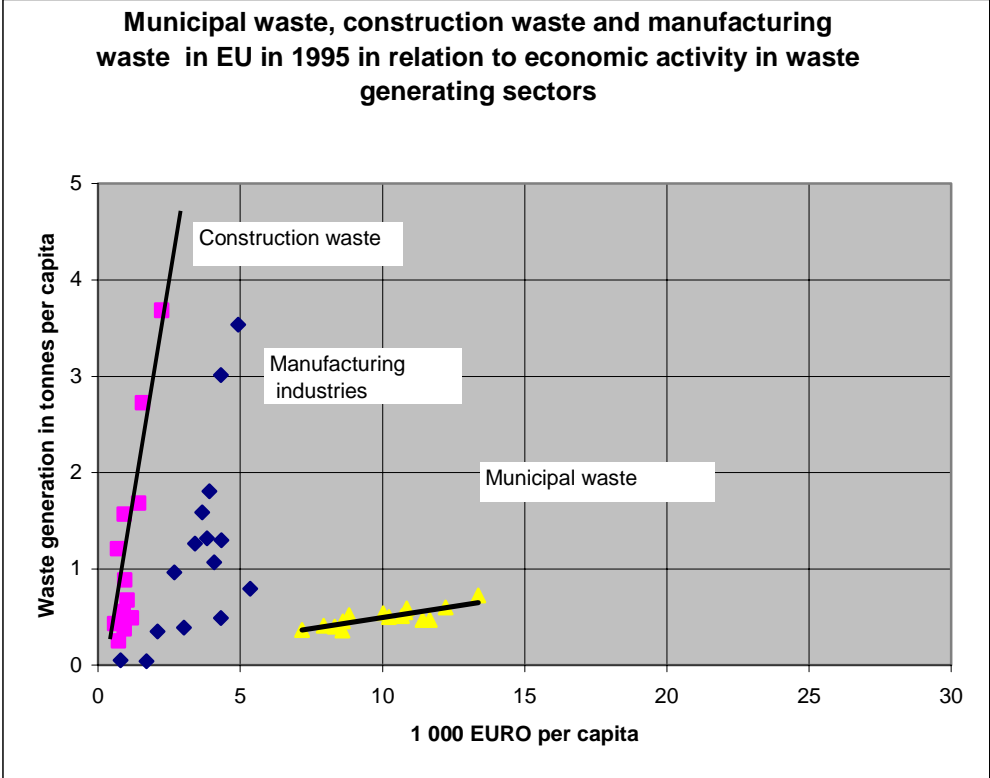


**Note:** Sewage sludge is included under other waste.

**Source:** Eurostat; EEA on specific waste streams.

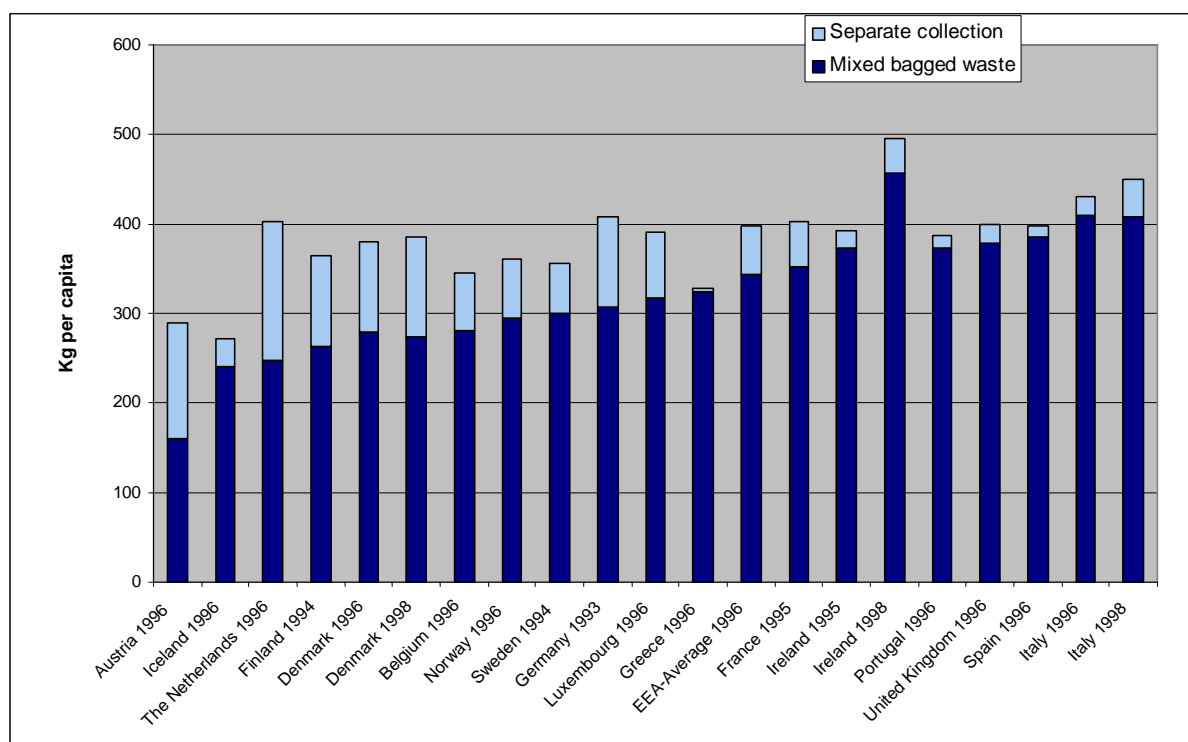
There appears to be a close link between economic activity and the generation of construction and demolition waste. For manufacturing waste the correlation is not statistically significant. There are large variations between Member States, with some making extensive use of ‘cleaner technologies’ (including internal recycling). Furthermore, major changes in industrial structure from traditional heavy goods to more advanced products might result in a reduction in waste generation per unit of production. It appears, however, that reductions in waste generation per unit of production in some countries through the use of cleaner technology are being overwhelmed by growth in the quantity of goods consumed.

**Figure 5: Is there still a correlation between economic growth and waste generation?**



## Waste from household/commercial activities

**Figure 6: Waste generation from daily household and commercial activities**



**Note:** The variations in waste generated from daily household and commercial activities between member countries are limited, except for Austria and Iceland, which have slightly lower generation rates. The increase in Ireland can be related to such themes as improved collection of waste and a more firm registration of waste or in changes in some of the household activities. Such as, the number of single households and the lifestyle change towards pre-prepared food and take-away restaurants.

Waste generation per capita from daily household and commercial activities (unlike 'municipal waste') is a well-defined category that can be compared across EEA countries. It includes bagged waste (mixed waste from households and other sources) and separately collected waste such as paper, glass and food/organic waste, but excludes bulky and garden wastes.

One of the targets set in the fifth environmental action programme was to stabilise the generation of municipal waste at the average EU level of 300 kg per capita by the year 2000. The 400 kg per capita of waste from daily household and commercial activities generated in 1996 constitutes only part of the total amount of municipal waste generated in that year. This fact together with the increasing trend in waste generation in countries for which data are available, suggests that the target is far from being reached.

There does not, however, appear to be any correlation between household expenditure and the generation of this category of waste, suggesting that increasing incomes will not necessarily lead to the generation of more waste of this type. The differences between countries are probably due to differences in lifestyles and consumption patterns. It is likely that increases in income will in most cases be used for long-term commodities and services, which may lead to more bulky wastes and wastes from construction and demolition.

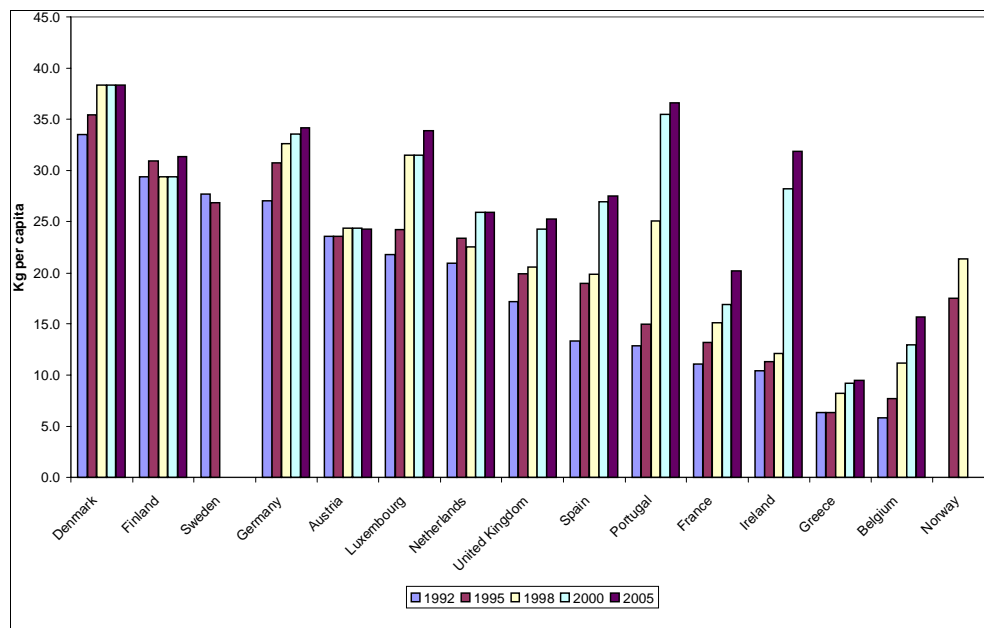


### Sewage sludge

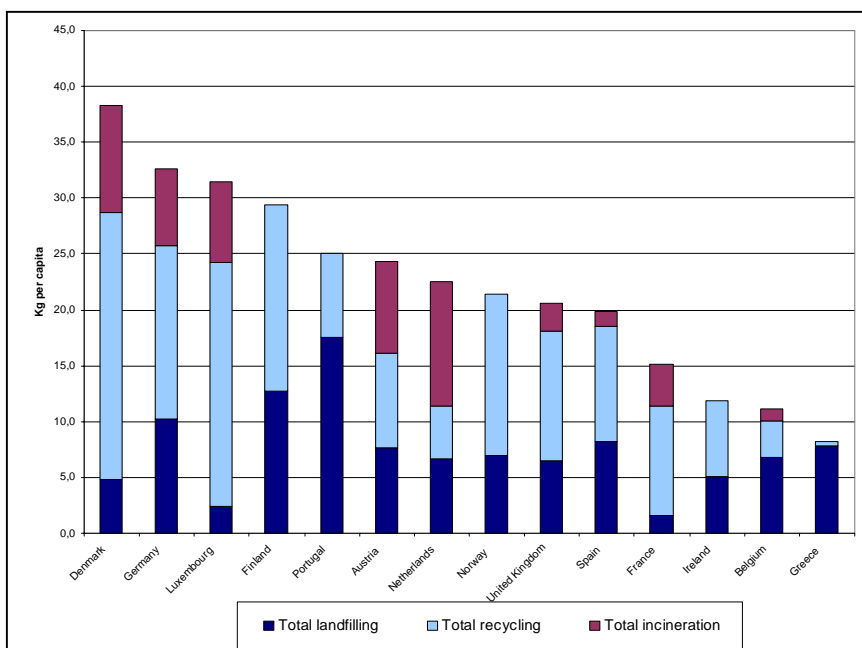
The total amount of sewage sludge produced in the EU increased from 5.2 million tonnes of dry matter in 1992 to 7.2 million tonnes in 1998. The large differences in the generation of sewage sludge (up to 30 kg per capita) between countries reflect differences in the extent of wastewater treatment.

The more stringent demands for water treatment in the Council Directive 91/171/EEC on urban wastewater treatment will result in many new treatment plants coming into operation by 2005 and the total amount of sewage sludge is expected to increase to at least 9.4 million tonnes of dry matter. The relative increases in some countries are foreseen to be much larger than the overall EU increase.

**Figure 7: Sludge from wastewater treatment, 1992–98 and forecast for 2000 and 2005**



**Figure 8: Treatment of sewage sludge: selected EEA member countries, 1998**



In 1998, 50 % of sewage sludge was used as fertiliser, mainly in agriculture or forestry, 25 % went to landfill, 18 % was incinerated and 7 % was discharged to surface waters or in unspecified ways.

### **3.5. EIONET**

#### *3.5.1. Third annual EIONET workshop on waste*

The third annual EIONET workshop on waste took place in Barcelona on 27 and 28 April 2000. Sixteen national reference centres, three national focal points and representatives of the Environment DG, Eurostat, the Topic Centre on Air Emissions and the Secretariat of the Basel Convention attended the workshop.

Focus was placed on three main items: the development of the ETC/W work since the second annual EIONET workshop in 1999; ETC/Waste of 'tomorrow' and a special session on the biodegradable waste stream.

The presentation of the work undertaken by ETC/W had special focus on work with the harmonised data on hazardous waste and progress of the work on waste from electrical and electronic equipment.

As the work of the first three-year period runs out in December 2000, there was a debate on the future work of a proposed ETC on waste and material flows. Both the European Environment Agency and the Topic Centre presented their ideas for the future work. A new working field for the Topic Centre will be material flows and resource management. It is also expected that the EEA, and hence the scope of the Topic Centre, will be expanded from the current 18 member countries to more than 30.

The presentations were followed by a special working group session. From this session the participants put forward proposals and ideas for what they considered priorities in a coming three-year period. These were as follows.

- A special session focused on biodegradable waste and the work in progress on the preparation of a topic report on biodegradable municipal waste (BMW). The report provides information on the current status of BMW management, the various options to reduce the amounts of BMW, strategic planning to meet the targets, and on how to set out a methodology and indicators for measuring progress towards the targets set out in the landfill directive. The Environment DG gave a presentation of the Commission proposals and initiatives on this specific waste stream.
- A site visit gave participants the opportunity to see a new composting plant, Planta de Compostage of Sant Cugat. The plant includes a recycling centre to which the inhabitants in the area can bring their special household wastes, such as waste oil, solvent batteries, etc.

#### *3.5.2. Contact with national reference centres (NRCs)*

During 2000, ETC/W staff visited representatives of the Greek Ministry of the Environment and the NRC concerning the activity 'Competent authorities and waste management strategies in Greece'. The meeting was set up with the aim to discuss how the Greek waste management plan will be implemented and moreover how the strategy for diverting biodegradable waste from landfill will be elaborated.

For the formation of the new Topic Centre on Waste and Material Flows, the ETC/W had meetings with two of the Phare national focal points from Estonia and the Slovak Republic. It is expected that national reference centres from all the EU

accession countries will be appointed during 2001, when they become full members of the European Environment Agency.

### **3.6. Support to EU policy framing and implementation**

The ETC/W work programme is directed towards the main problems of the Community waste strategy, aiming at providing the Commission and Member States with the necessary improvements of the knowledge base required to implementing the strategy efficiently.

ETC/W aims at having a close working relationship with the Waste Unit of the Environment DG and Eurostat as well as the Secretariat of the Basel Convention. Thus, occasional meetings are arranged with these institutions, including regular participation in Commission working groups on behalf of EEA. In 2000, ETC/W took part in the meetings of the Waste Management Committee and the Technical Adaptation Committees (TAC) of the Environment DG. Furthermore, ETC/W contributed to the draft proposal for a waste statistics regulation.

In March 2000, ETC/W and the Waste Unit of the Environment DG jointly organised a workshop in Brussels, which was also attended by EEA, Eurostat, JRC and representatives from other DGs. The prime purpose of this workshop was to inform staff from the Environment DG, other DGs, Eurostat and the JRC on the work of the topic centre and to exchange ideas and formulate proposals for an intensified collaboration between the topic centre and the Commission.

#### ***3.6.1. Support to implementation of Community legislation***

ETC/W contributes to the implementation of Community regulations with transparent information on how waste management is practised across Member States, securing an exchange of information which could facilitate an appropriate implementation and enforcement of Community waste legislation, including the drawing-up of waste management plans.

#### **Electronic questionnaire**

ETC/W has developed an electronic questionnaire, which will facilitate the reporting obligations of the Member States in relation to Directive 91/692/EEC on standardised reporting. According to this reporting obligation, each Member State has to fill in questionnaires related to implementing various waste directives every three years. ETC/W has supported the Environment DG by processing the data from the Member States for the period 1995–97. For the next reporting period (1997–2000) it will be possible for the Member States to make the reporting on an Internet-based questionnaire.

#### **Topic report on biodegradable municipal waste**

The principal objective of the topic report (see Subsection 3.3) is to provide European-wide information on the current status of biodegradable waste management and the various options available to reduce amounts going to landfill. The report addresses the strategic planning requirements to meet the targets and should be seen as a general guidance tool for Member States to assist them with the challenge ahead. It also outlines a methodology and indicators for measuring progress towards the targets set out in the directive and it is focussing on the attainment of these targets. Therefore this report can be seen as 'reference document' for the Commission and national authorities for the implementation of the landfill directive.

### **Guidelines for elaboration on waste management plans**

On request from the Environment DG, ETC/W has developed a set of general guidelines on waste management planning, referred to as the Wasteguide. The Wasteguide is to be seen as a tool for competent authorities responsible for waste management planning. The objective is to stimulate the development of more coherent and uniform planning practices in the Member States and secure that the content of waste management plans will as a minimum deal with the specific demands in the waste framework directive and other relevant directives. This report will be made available to the Environment DG by the end of 2001.

#### ***3.6.2. Topic report on waste minimisation practices in Europe***

The objective of the topic report on waste minimisation practices in Europe is to provide inspiration for national, regional and local authorities preparing initiatives on waste minimisation to fulfil targets established by the national and/or the EU legislation.

The report is based on 10 primary case studies and 30 secondary cases representing some of the most important initiatives of technological, organisational and political/legislative measures taken in the EEA countries during the 1990s in order to promote and encourage waste minimisation. By studying these cases all countries should therefore be able to find inspiration to improve the existing situation.

The report has been submitted to EEA and will be published in 2001.

## 4. Main products/outputs forwarded by ETC/W in 2000

Type of report	Reference/status	Title
Topic reports	2/2000	Waste — Annual topic update 1999
	Submitted in September 2000	Comparability and non-comparability; classification and terminology of hazardous waste in EEA countries
	Submitted in December 2000	Case studies on waste minimisation practices in Europe
	Submitted in December 2000	Biodegradable waste management in Europe
	Submitted in December 2000	Waste — Annual topic update 2000
Technical report	Submitted in November 2000	Draft report on <b>specific waste streams</b> giving an overview of waste data on construction and demolition waste, sewage sludge, organic waste, waste oil and waste from coal-fired power stations. This includes data set on construction and demolition waste, sewage sludge, organic waste, waste oil and oil from coal-fired power plants.
Combined technical report	Submitted in February 2001	A report on the work on <b>waste from electrical and electronic equipment</b> . It is a collective of three technical reports written on the subject.
Combined technical report	Submitted in February 2001	A report on the work on waste management facilities.
Tool	Submitted in March 2001	A computer based model on waste from electrical and electronic equipment
Assessment reports	EEA Environmental signals 2000	Waste (Chapter 11)
	EEA Environmental signals 2001	Contribution to the report
	EEA Environmental signals 2001	Fact sheets for preparation of the report
Electronic catalogues etc.	Part of WasteBase (Internet-accessible in 2001)	<b>WasteBase</b> WasteBase includes electronic catalogues on: <ul style="list-style-type: none"> <li>• waste minimisation/clean technology institutions/centres</li> <li>• clean technology instruments and strategies</li> <li>• waste management plans</li> <li>• competent authorities</li> <li>• waste management strategies and instruments</li> <li>• waste facilities</li> <li>• selected waste quantities; focus on waste generation, recovery and disposal.</li> </ul>
	<a href="http://www.etc-waste.int/">http://www.etc-waste.int/</a>	ETC/W web site
Ad hoc support for EEA	Submitted in November 2000	EIONET status report
Work for the Environment DG	To be published in 2001	Wasteguide 2001
	To be published in 2001	Electronic questionnaire on reporting obligations in accordance with Directive 91/692/EEC

# Annex 1 List of consortium partners

## **Joint Venture Danish EPA/EPA of the City of Copenhagen**

European Topic Centre on Waste

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## **Junta de Residus, Catalonia, Spain**

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Junta de Residus

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*Jordi Macarro i Canal*

## Annex 2 List of national reference centres for waste

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Belgium (OVAM)	Lies Van Grimbergen	OVAM Kanunnik de Deckerstraat 22-26 B-2800 Mechelen	Tel. (32-15) 28 42 84 Fax (32-15) 20 45 18 E-mail: mvacoley@ovam.be
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