



ACR+

# Waste prevention in regional waste management plans

Comparative study of  
7 regional and  
subregional authorities  
in Europe

Technical Report

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Author : Caroline Saintmard, Project manager, ACR+

Editorial Committee :

Jean-Pierre Hannequart, *Managing Director IBGE and President of ACR+*, Francis Radermaker (*ACR+*), Caroline Saintmard (*ACR+*), Elena Bagaria i Ribó (*Centre Català del Reciclatge Agència de Residus de Catalunya*), Pilar Chiva I Rodriguez (*Centre Català del Reciclatge Agència de Residus de Catalunya*), Angela Ranea (*Junta de Andalucía*), Esperanza Caro (*Junta de Andalucía*), Susana Lopes (*LIPOR -Serviço Intermunicipalizado de Gestão de Resíduos do Grande Porto*), Arnaud Lange (*Mairie de Paris – Direction de la Propreté*), Martine Gillet (*Office Wallon des Déchets*), Campbell Williams (*Hampshire County Council*).

Editor responsible :

Jean-Pierre Hannequart - ACR+  
Gulledelle, 100 B-1200 Brussels  
<http://www.acrplus.org>

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## 1. Executive Summary

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Local and regional authorities are key actors of waste management, in particular concerning waste planning. They have indeed to provide for the availability of waste management infrastructure on their territory, to finance and to monitor them. They execute these various roles and responsibilities in close association with cities and municipalities; public authorities are also close to citizens, representing their general interest locally scale, and are generally in charge of the collection and treatment of municipal waste.

If it cannot be contested that waste management plans to be developed according to article 7 of Directive 75/442/CE must include waste prevention measures, orientations about this has been quite vague and the effective application of this prescription variable.

The European Commission proposal for a new Waste Framework Directive on waste<sup>1</sup> clarifies some existing prescriptions, while introducing the obligation to draw up waste prevention programmes at the *geographical levels most appropriate for their effective application*.

Even before these latest developments, ACR+ undertook the realisation of a synthesis report analysing the main prescriptions relating to prevention which one can find in regional waste management plans, with the objective to bring some elements of answer to the following questions :

- which waste flows should be prioritarily subjected to prevention measures ?
- which instruments/ types of actions are available at the local scale (legal, economical or voluntary)?
- which audience to target ?
- which partnerships to develop ?
- how to assess results ?

7 regional authorities members of ACR+ agreed to join this initiative during 2005 :

- the Andalusia region (E)
- the Brussels-Capital Region (B)
- the Catalunya Region (E)
- Hampshire County Council (RU)
- LIPOR (Greater Porto Region) (P)
- The city of Paris (F)
- The Walloon Region (B).

Besides a range of observations and of recommendations relating to the afore-mentioned questions, this report concludes that :

- Prevention must have an increasingly important place in waste management plans, as in more strategic or political documents, whether drawn up at local, regional or national level.
- A prevention policy can only be effectively implemented where there is complementarity between different levels of power; it is therefore important for prevention plans to present a clear view of the role expected of the upper and lower levels of authority.
- The development of effective prevention tools requires thorough understanding of waste streams generated at local level and of their qualitative, quantitative and symbolic importance.
- In general, the same types of waste streams and actions are targeted in the different regions under review. They have simply reached different stages of advancement. So there is indeed room for harmonisation at European level.

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<sup>1</sup> Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions of 21<sup>st</sup> December 2005, COM (2005) 667 final

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### **Annexes - Individual presentations and in-depth comments about our 7 partners' waste management plans**

### 3. Introduction

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Prevention has become an essential concept of waste management : it is both a fundamental technical factor of waste management at the local scale, and a notion which should question European citizens regarding shortages of natural resources in the middle or long term.

On the one side indeed, waste arisings are growing calling for the development of new treatment infrastructures, having of course technical but also financial and social impacts for local and regional authorities.

On the other side, we benefit in Europe from education and living standards which could help us to understand that it is possible to live better while using – wasting !- less resources and sharing them more equitably with the world population... and future generations.

Waste management planning is a means to ensure that waste management registers itself and contributes to the sustainable development of one national, regional or local territory. This is also an obligation of European law – which in addition requests to include waste prevention measures in every waste management plan. By the way, it may seem difficult to plan the creation and implementation of waste collection and treatment infrastructures if waste volumes and their origins – as well as the possibilities to avoid or reduce them have not been identified beforehand.

## 4. General considerations: sources and notions of waste planning and waste prevention today in Europe

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### 4.1. Waste management planning

Waste management planning could be considered a cornerstone of any national, regional or local policy on waste management. Indeed, the establishment of a plan allows the taking stock of the existing situation, to define the objectives that need to be met in the future, to formulate appropriate strategies and identify the necessary means of implementation.

#### 4.1.1. The principle of waste management planning: Waste Framework Directive 75/442/EEC (as amended by Directive 91/156/EEC)

The Framework Directive on waste 75/442/EEC of 15 July 1975 introduced an obligation for all EU Member states to set up waste management plans covering their whole territory. Directive 91/156 took up this obligation. Its wording makes it explicitly applicable to all waste management operations, from prevention to the setting up of an integrated and adequate network of disposal installations (new Article 7.1 ab initio).<sup>2</sup> This appears as a key measure to promote the waste management hierarchy established by Article 3.

##### 4.1.1.1. Purpose of setting waste management plans and strategic dimension

The background document “*Preparing a Waste Management Plan – a methodological guidance note*” edited by the European Topic Centre on Waste and Material Flows in 2003, evokes several aims toward which waste management plans contribute towards, notably :

- to implement and achieve policies and targets set up in the field of waste management at the national and European level
- to ensure that the capacity and the nature of the collection and treatment systems are in line with the waste to be managed on a territory
- to identify and control the technologies allowing to eliminate or minimise waste
- to allow for stating the financial requirements for collection schemes and treatment infrastructure.

##### 4.1.1.2. Elaboration modalities

**Article 7** of the Directive states that the obligation of setting up one or more waste management plans falls to the “**competent authority or authorities**”, referred to in **Article 6** as responsible for the implementation of the Framework directive on waste. Member states may indeed decide to cover their territory by means of one national plan or with several regional or even sub-regional plans.

These plans are required to be drawn up **as soon as possible**. The **possibility of collaboration between Member States or with the Commission** is mentioned by Article 7 § 2.

Directive 2001/42/EC of the European Parliament and Council of 27 June 2001 on the assessment of the effects of certain plans and programmes on the environment, establishes that certain plans and programmes, in particular waste management plans, must undergo an environmental impact assessment.

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<sup>2</sup> European Waste Law, Jean-Pierre Hannequart, Kluwer International 1998, p. 110

#### 4.1.1.3. Content of waste management plans

According to the document “*Preparing a Waste Management Plan – a methodological guidance note*” a plan can be considered to have 3 key elements<sup>3</sup> :

- the background (policies and regulations to the implementation of which the plan contributes)
- the status part, diagnosing the state of the situation
- the planning part, setting objectives to be achieved, action lines and dedicated budget.

It appears that the central element of the planning part is the determination of **objectives**, e.g. for priority waste streams or waste treatment. Another central element is to evaluate how these objectives may be met most effectively. The **instruments** that can be used to achieve these objectives can be:

- Legal/regulatory
- economic
- technical
- educational

Article 7 § 1 distinguishes mandatory and optional information.

Mandatory elements cover :

- the type, quantity and origin of waste to be recovered or disposed of
- general technical requirements
- any special arrangements for particular wastes
- suitable disposal sites or installations.

Optional elements may, for example, cover :

- the natural or legal persons empowered to carry out the management of waste
- the estimated costs of the recovery and disposal operations
- appropriate measures to encourage rationalisation of the collection, sorting and treatment of waste.

Complementary provisions pertaining the content of waste management plans are also laid down with regard to Hazardous waste in Article 6 of Directive 91/689/EEC and Packaging and Packaging Waste in Article 14 of Directive 94/62/EC :

- Directive 94/62/EC on Packaging Waste requires the insertion in the waste management plans required pursuant to Article 7 of Directive 75/442 EEC, a specific chapter on the management of packaging and packaging waste, including measures pursuant to prevention and reuse.
- Directive 91/689/EEC on Hazardous Waste requires the creation of specific plans for the management of hazardous waste, separately or in the framework of the general waste management plan referred to in Article 7 of Directive 75/442/EEC.

#### 4.1.1.4. Binding or inspirational character of a waste management plan

The notion of plan is not defined at the European level. Neither has been clarified the binding character (whether simply indicative or legally binding) of waste management plans<sup>4</sup>.

The European Court of Justice requested that waste management plans constitute *an organised and coordinated system for the disposal and treatment of waste*<sup>5</sup>.

Council Directive of 18 March 1991 (91/157/EEC), art. 6, introduces the notion of “programmes” for the management of batteries and accumulators containing certain dangerous substances.

<sup>3</sup> “Preparing a Waste Management Plan – a methodological guidance note”, European Topic Centre on Waste and Material Flows, 2003, p. 7

<sup>4</sup> European Waste Law, Jean-Pierre Hannequart, Kluwer International 1998, p. 111

<sup>5</sup> Kramer, Ludwig, Casebook on EU Environmental Law, August 2002, p. 366 referring to Court of Justice, Case C-387/97, *Commission v. Hellenic Republic* [2000] ECR I-5047, para. 76.

The differences between “plans” and “programmes” are not clear neither in terms of objectives, procedures, content and legal force<sup>6</sup>, but on the whole it could be considered that programmes are rather to be considered as instruments aiming at achieving a policy objective within a certain time period, while plans are more management instruments without a real schedule, but whose content must be communicated to the Commission.

#### 4.1.1.5. *Outcomes of the implementation of waste management plans in Europe*

In accordance with article 16, Member States shall send the Commission every 3 years a report on the measures taken to implement this Directive. And the Commission shall publish a consolidated report every 3 years as well.

These reports on the implementation of the EU waste legislation are available at the following address : <http://www.ec.europa.eu/environment/waste/reporting/index.htm>

The first report on the implementation of Directive 75/442 was published in 1997 only, covering the period 1989-1994<sup>7</sup>. One of the main findings was *an enormous variety of waste management plans as regards, for example, authors (local authorities, regions, districts or national governments), content, territorial coverage and waste covered. The Commission noted (...) [The instrument of management plans] which is of capital importance in any waste management policy, has only very recently been deployed by the Member States, and only in piecemeal fashion.*<sup>8</sup>

For the period covering 1995 to 2000, the following observations can be reminded<sup>9</sup> :

- in the field of planning :

*Waste management plans are a key element in the Community's waste management policy as, without appropriate planning, Member States are not in a position to be able to account for and deal with the waste that arises in their territories. In addition to directive 75/442/EEC, Article 6 of Directive 91/689/EEC on hazardous waste and Article 14 of Directive 94/62/EC on packaging and packaging waste require also waste management plans for those wastes.*

*During 1997-2000 the Commission took legal action against several Member States which failed to ensure that waste plans were in place. By the end of that period the majority of Member States had drawn up plans. Problems persist with France, UK and Italy.*

*With an aim to improve waste management planning in the Member States the Commission has arranged for the preparation of guidelines addressed to national or regional competent authorities. Their publication is expected in the first quarter of 2003.*

- as regards prevention :

*From the information provided by Member States, it remains unclear whether and how much waste has been prevented within the European Union over the 1998-2000 period. According to data supplied on waste generation, it appears that household waste per capita has increased as compared to the previous period while hazardous waste is stabilised.*

This means less than satisfactory outcomes at the level of the European Community.

Consequently, the Environment Committee of the European Parliament took the initiative in 2003 of reviewing together with the European Environment Agency (EEA) the quality of waste management plans and the potential relationships existing between the quality of the plans and waste generation and management trends. On this basis, it proposed a resolution to the Parliament, voted in November 2003 and urging Member States to draw up or improve waste management plans by providing first and foremost measures to encourage the prevention or reduction of waste production.

<sup>6</sup> L. Kramer, Casebook on EU Environmental Law, August 2002, pp. 360 - 366

<sup>7</sup> COM (97) 23 of February 27, 1997, referred by Ludwig Kramer, *European Environmental Law International*, Library of Environmental Law & Policy, Ashgate 2003, p. 245.

<sup>8</sup> Kramer, *Ibidem*, referring to the same COM (97) 23 of February 27, 1997.

<sup>9</sup> COM(1999)752 final et COM(2003)250

## 4.2. Waste prevention

Article 7 of Directive 75/442/EEC refers clearly to article 3, which lays down the EU strategy for waste management, and gives waste prevention the highest priority, followed by recycling and other types of recovery.

### 4.2.1. Concept

Article 3 Paragraph 1 of Directive 75/442/EEC of 15 July 1975 on waste (amended by Directive 91/56/EC) provides a double meaning of waste prevention :

- the complete avoidance of waste production and of its harmfulness and so the very first stage of waste management hierarchy;
- or the reduction of waste production and of its harmfulness [notably thanks to clean products and technologies].

There are other Directives on specific waste flows set clearly waste prevention "at source"<sup>10</sup>.

Directive 94/62/EC on packaging and packaging waste (as amended) confirmed the priority of prevention, defining it more specifically as : *the reduction of the quantity and of the harmfulness for the environment of:*

- *materials and substances contained in packaging and packaging waste,*
- *packaging and packaging waste at production process level and at the marketing, distribution, utilization and elimination stages, in particular by developing 'clean` products and technology*<sup>11</sup>.

The latter definition precisely addresses several stages in the product-waste life cycle, where prevention can be addressed :

- conception / design (eco-design)
- manufacturing (eco-labelling)
- distribution : offer of ecologic products
- purchase/sale : helping consumers to identify products generating less waste, or environmental friendly products
- product use (ex : measurement or controlled use of consumables)
- elimination stage shall be considered here as avoiding waste to enter the collection and treatment process, thanks to home composting or to reuse for instance.

The potential scope of prevention is thus quite large, both on a sectoral as on a spatial basis, and the concept of "waste prevention" sometimes targets a variable geometry of areas of action needs to be clarified indeed.

<sup>10</sup> For instance: DIRECTIVE 2002/96/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 27 January 2003 on waste electrical and electronic equipment (WEEE) Article 3, c) or DIRECTIVE 2000/53/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 September 2000 on end-of life vehicles Article 2, 4)

<sup>11</sup> Art. 3, 4)

#### 4.2.1.1. *The first stage of a waste management hierarchy: elimination and reduction of waste at the source*

In the strict sense, waste prevention means non-production or total elimination. Generally, the reduction of waste occurs at a level close to the source. Here, waste prevention at the source integrates product policy at the level of both production processes and consumption.

More specifically, the following multi-level hierarchy emerges:

1. prevention at the source consisting in:
  - a. preventing/eliminating
  - b. reducing the amount of raw materials used in the production process
2. re-use of products
- [3. recycling of material
4. recovery to produce energy
5. disposal]

#### 4.2.1.2. *Quantitative and qualitative prevention*

In addition to the avoidance or reduction in quantity (weight, volume or number of units) of waste, an effort can also be made to reduce the toxicity level or more generally the hazardous nature of waste. Qualitative waste prevention is a natural complement to quantitative prevention.

#### 4.2.1.3. *Re-use*

Re-use – in the sense of re-using a product for its intended purpose – is often placed in the second level of the waste management hierarchy. It differs from prevention in the strict sense to the extent that it does not eliminate the manufacture of a product but gives it a second life or even multiple lives. It should be made clear, however, that re-use can have truly "preventive" effects since it reduces the use of raw materials in the manufacture of new finished goods.

#### 4.2.1.4. *Prevention of waste to be collected*

From an operational standpoint, it is interesting to consider that the scope of prevention encompasses everything that reduces waste to be collected under the responsibility of the public authorities. Home composting of household waste, for example, can come under prevention policies.

#### 4.2.1.5. *What prevention is not:*

##### Avoidance of waste disposal

Some use the term "waste prevention" for all actions reducing waste disposal through landfill. This area of action – known as "waste minimisation" – is particularly far-reaching. It is important to avoid terminological confusion that could destroy the relevance of an approach to waste management based on a hierarchy.

##### Prevention of negative environmental impacts

The European Commission has used this terminology in drawing up its waste thematic strategies. And one cannot help but think that, like the term "waste minimisation", the expression insidiously extends the scope of waste prevention: indeed, while negative environmental impacts need to be reduced, this should first be done at the source, because the best waste is waste that does not exist.

## 4.2.2. Implementation

Prevention of course needs a legislative and regulatory framework which sets clear objectives and structures and ensures its implementation.

But on the one side, waste prevention supposes a change of behaviour which cannot be imposed from one day to another : stakeholders shall be given the possibility to change their behaviours and oppositions which necessarily will appear to be met on the ground, via an important communication work upstream as well as in accompaniment of the measures taken.

It is important when the public authorities wish to promote "prevention" to begin by defining the behaviour expected of the target public, so as to determine whether measures will aim to:

- encourage a certain type of behaviour
- or penalise undesirable behaviour.

On the other side, the change of behaviour shall be confirmed via economical instruments : the application of the polluter-pays principle to households and to enterprises through fees proportional to the quantities of waste produced could be one of these measures.

## 4.2.3. Why promoting prevention at the local and regional scales ?

Municipalities and regions are not only key actors of waste management. Of course, they are in charge of collection, sorting, recycling, treatment, planning, authorisations and monitoring of waste facilities as well as the financing of waste management. But also, as the closest public actors to citizens, they might also have a significant role to play in raising awareness about the consequences of our occidental lifestyles essentially based on material consumption.

The Commission Communication "Towards a thematic strategy on the prevention and recycling of waste" noted in June 2003 the existence of national design and production policies in favour of prevention, as well as voluntary actions at the local level<sup>12</sup>, but the absence of comprehensive strategies.

Consequence of this assessment ? In any case it is obvious that the recent proposal for a new Framework Directive on waste management<sup>13</sup> provides that "prevention programmes" shall be *drawn up at the geographical level most appropriate for their effective application* (Art. 29. 1 (2)).

Certain comparative studies suggest, moreover, that it is at the level of small and medium-sized towns that preventive actions will lead to the best results in terms of overall tonnage<sup>14</sup>.

<sup>12</sup> Bruno Genty, "Comment développer en France des politiques locales de prévention des déchets ?", DESS Espace et Milieux, September 2003

<sup>13</sup> Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions of 21<sup>st</sup> December 2005, COM (2005) 667 final

<sup>14</sup> Bruno Genty, "Comment développer en France des politiques locales de prévention des déchets ?", DESS Espace et Milieux, Septembre 2003

### 4.3. Proposal for a Directive of the European Parliament and the Council on waste (presented by the Commission on 21 December 2005)<sup>15</sup>

The Thematic Strategy on the Prevention and the Recycling of waste<sup>16</sup> has identified three main reasons for undertaking a revision of the Waste Framework Directive<sup>17</sup> :

- the need for clarifying a certain number of definitions concerning principally the definition of waste and the distinction between recovery and disposal
- the need to introduce an environmental objective (e. g. to reduce the environmental impacts from waste generation and management, taking into account the whole life-cycle and to move towards a more standards based approach
- the need to simplify the existing legal framework.

#### 4.3.1. Clarification of the content of waste management plans

The proposal redrafts the article on waste management plans, in order to make their content clearer and to give a life-cycle approach to the exercise (art. 26).

Art. 26, 2° now clearly refers to measures to be taken for the prevention and the reuse of waste.

Account has also to be taken of the waste planning requirement laid down in Art. 14 of Directive 94/62/EC on Packaging and Packaging waste as well as of the strategy for the reduction of biodegradable waste going to landfill, referred to in Art. 5 of Directive 1999/31/EC on the landfill of waste – including significant awareness raising campaigns and the use of economic instruments.

#### 4.3.2. Programming waste prevention

The proposal introduces specific provisions on waste prevention (art. 29 to 31), requiring Member States to draw up waste prevention programmes.

These provisions can be integrated in waste management plans but not necessarily. They shall be elaborated at the most appropriate geographical level (art. 29, 1°, 2§), and are expected to *increase the focus of policy makers at EU, national and sub-national levels on prevention thereby triggering an increase in waste prevention policies. They allow for the necessary flexibility in developing national and local solutions to capture the benefits of waste prevention (...)*<sup>18</sup>.

In their programmes, Member States shall set waste prevention **objectives** and assess opportunities of taking **measures** as set out in an Annex IV of the Directive (art. 30, 1°).

They shall also determine specific qualitative and quantitative targets and **indicators** for any measure adopted, in order to monitor and assess their progress (art. 30, 2°).

The setting of objectives and the assessment of measures is aimed to help breaking the link between economic growth and the environmental impacts associated with the generation of waste.

Public participation in both waste management plans and waste prevention programmes has to be ensured (art. 27).

<sup>15</sup> Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions of 21<sup>st</sup> December 2005, COM (2005) 667 final

<sup>16</sup> Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions of 21<sup>st</sup> December 2005, COM (2005) 666 final

<sup>17</sup> COM (2005) 667 final

<sup>18</sup> Explanatory memorandum, p. 6.

#### 4.3.2.1. *A brief comment*

The proposal for a new Waste Framework directive does not contain any definition of prevention anymore. And if the prevention or reduction of waste production and its harmfulness remains the first stage of a 2-level hierarchy (second one being recovery encompassing reuse, recycling, recovery etc.), and it states that *objectives and measures* (of waste prevention programmes) *shall be designed (only) to break the link between economic growth and the environmental impacts associated with the generation of waste* (art. 30, 1°). But should a sustainable waste management policy not have also as fundamental objective to prevent or reduce their generation ?

## 5. In-depth analysis of prevention elements in the « plans » of the 7 regional and subregional authorities under review

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Seven regional and sub-regional authorities (and ACR+ members) have agreed to look together at the way prevention is promoted in their waste management plan, and to discuss the topic in the scope of two working groups, held in Brussels on 3<sup>rd</sup> June and 8<sup>th</sup> November 2005.

The main objectives and interests of this initiative were :

- to reflect on the concept of prevention and how (difficult) it can be promoted in regional waste management plans
- to ensure a transfer of knowledge and expertise from experienced and more advanced regions to those who can learn from their successful or less positive experiences.

The reflection was articulated around 9 basic questions, which were asked to each participating region:

1. At which level is the plan elaborated? In which context is it implemented?
2. What are the place and definition of prevention within the plan?
3. Which are first targeted waste flows?
4. Which objectives are set?
5. Which tools are used: economic, legal, voluntary?
6. Which are the target audiences?
7. Which partnerships have been set up for implementing the plan?
8. Have monitoring and assessment methods (basis data and indicators) been developed?
9. Insight in the budget dedicated to waste prevention actions?

Here below follows a detailed comparative analysis of the regional situations under review.

Individual presentations and in-depth comments about our 7 partners' waste management plans as well as synthetic tables can be found as annexes to the present document.

## 5.1. At which level is the plan elaborated? In which context is it implemented?

### An extended concept of “Regional Authority”

Political and institutional structures vary among countries. “Region” is not a common institutional concept for all EU countries.

	Autonomous community of Andalusia (E)	Brussels Capital Region (B)	Autonomous community of Catalonia (E)	Hampshire county (UK)	LIPOR (P)	Paris P.D.E.D.M.A. (F)	Walloon Region (B)
<b>Inhabitants</b>	7.606.848	999.899	6.704.146	1.251.000	971.931	2.125.246	3.368.250
<b>Territory (km2)</b>	87.795 km2	161,4 km2	31.895,3 km2		648 km2	105,4 km 2	16.844 km2
<b>Power level</b>	regional	regional	regional	Sub-regional	Sub-regional	Sub-regional	regional
<b>Administrative subdivisions</b>	8 provinces	19 communes	4 provinces 41 districts (« comarcas ») 946 municipalities	13 districts	8 municipalities	= Département de Paris	262 communes

Some of the partners in ACR+ study are effective regions, like the Communauté Autonome de Catalogne, Communauté Autonome d’Andalousie, Région de Bruxelles-Capitale, Région Wallonne. Some other are big conurbations (Paris), subregional authorities (Hampshire County Council), or associations of municipalities (LIPOR).

This may be considered a weakness as regards the possibility to outline systematic comments. However, all of these entities have the common characteristic to be an intermediate authority level with competencies in waste management planning, and the exercise of comparing their situations shows that there are planning elements existing at different “decentralised” levels, for different types of entities.

### Support documents which vary in nature

Even if this is desirable with the view to implement an organised and coordinated system, strategic elements related to waste management in a defined area are not always “systematised” in a waste management plan. These elements might have to be sought in various kinds of documents, at various authority levels (eg : national, regional and local waste management plans, programmes, policy statements, position documents, strategies, work programmes/ activity reports of waste management organisations, etc.).

The study has reviewed various documents. 5 out of the 7 regions provided a document that could be considered as a waste management plan.

	Autonomous community of Andalusia (E)	Brussels Capital Region (B)	Autonomous community of Catalonia (E)	Hampshire county (UK)	LIPOR (P)	Paris P.D.E.D.M.A. (F)	Walloon Region (B)
<b>Waste management plan</b>	yes	yes	yes	(MWDF)	-	yes	yes
<b>Strategic document</b>	-	-	-	yes	yes	yes	yes

Characteristics of these plans may vary.

	Autonomous community of Andalusia (E)	Brussels Capital Region (B)	Autonomous community of Catalonia (E)	Hampshire county (UK)	LIPOR (P)	Paris P.D.E.D.M.A. (F)	Walloon Region (B)
<b>Mandatory elements (to a certain extent)</b>		Certain parts not related to prevention	Municipalities self-commitment	No	no	No	Mediate source of law
<b>Existence of previous plans</b>	no	1993 – 1997 1998 - 2002	1995 - 2000	INTEGRA (1993)	no	no	1991 - 1995
<b>Time and length of application</b>	1999 – 2008 (10 years)	2003 – 2007 (5 years)	2001 – 2006 (5 years) <sup>19</sup>	> 2003 objectives : 2020	2000-2014	> 2001 10 years	1998 – 2010 being reviewed currently
<b>Public enquiry</b>	yes	yes	yes	yes	no	Yes but not for revision if the general economy is not modified	yes

### Prevention plans: binding in nature or simply strategic?

A plan lacks the binding character of a law. However, it may sometimes contain mandatory elements. Mandatory elements apply more frequently to identified public authorities.

In many cases, regional authorities are using fiscal incentives to force LRAs to comply to the objectives or the prescriptions of the plan. This is the case in the **Walloon Region (B)**, where municipalities can get subsidies for prevention actions only if they comply with the prescriptions of the plan.

### Partnerships with authorities from upper and lower levels as well as with other actors are essential

Never are all waste management competencies are in the hands of a single authority. Whatever the authority responsible for waste management planning, it will always have to deal with public authorities from lower and upper levels. An effective planning process must take into consideration the sharing of responsibilities and competencies among the various authority levels, and must envisage the partnerships to be developed with other organisations at different levels, in order to ensure the operational implementation of the plan. This could usefully lead to the creation of a map of competencies of the various actors involved within the “waste-products-resources” process.

<sup>19</sup> In Catalonia (E), the regional plan has been designed with 2 implementation phases :  
2001 – 2003 : phase of impulse for selective collection & infrastructure  
2004 – 2006 : phase for the consolidation of the objectives.

### 5.1.1. What are the place and definition of prevention within these plans ?

#### The concept of prevention

The concept of prevention is differently expressed in the documents under review. It might also be implemented in different ways and might not cover the same realities.

Comparison reveals a use of various terms, highlighting the **need for making the concept evolve towards a common definition** of prevention with a view of EU-25 harmonisation.

	Autonomous community of Andalusia (E)	Brussels Capital Region (B)	Autonomous community of Catalonia (E)	Hampshire county (UK)	LIPOR (P)	Paris (F)	Walloon Region (B)
<b>Basic term(s)</b>	reduction prevention reuse	Dematerialisation Reuse	Prevention Reduction Minimisation Reuse	Waste minimisation <b>Sustainable material resource use</b> Resource efficiency Wastage reduction Reduction of waste	Sustainable consumption 0 Waste Prevention Reduction Reuse	Prevention (quantitative and qualitative) Reduction at source	Waste prevention (quantitative and qualitative)
<b>Waste management hierarchy</b>	Yes	Yes	Yes	Yes	Yes	P.D.E.D.M.A. : No National strategy : yes	yes
<b>Definition</b>					Cf Definitions of the National Strategy (PERSU)	P.D.E.D.M.A. : No National strategy : yes	
<b>Room dedicated</b>		3 chapters (> 1/3 of the document)	One chapter (>1/10 of the document)			No reference within the P.D.E.D.M.A.	2 x 10 pages out of 500

#### Prevention elements are so not always “systematised” within one single chapter or even within in one document (i.e. waste management plan).

Still with the view to implement an efficient waste management system, it might seem desirable to refer to waste prevention planning aspects in one specific chapter of the waste management plan – even if detailed explanations could be found in more specific chapters. These can be addressed – depending on the structure of the plan – by flows, target audiences, or implementation tools...

#### Qualitative prevention can also be promoted

Qualitative prevention concerns reducing the toxic or hazardous nature of waste. It can be promoted for instance through discouraging the purchase of products with a shorter lifespan or which use batteries ... Or through measures which reduce the impact of the product on its environment during the use phase (ex: its energy consumption).

<b>Concepts and definitions of terms related to prevention</b>	
<b>Autonomous community of Andalusia (E)</b>	<p><b>Minimisation:</b> actions tending to reduce or to suppress waste production or that make possible to recycle or the reuse waste, according to economic and technical feasibility.</p> <p><b>Prevention :</b> Set of measures aimed at <b>avoiding or reducing</b> waste generation, or the amount of hazardous substances it contains.</p> <p><b>Reuse:</b> The application of a product used, for the same purpose for which it was originally designed.</p>
<b>Brussels Capital Region (B)</b>	<p><b>Prevention :</b> is not only to reduce the weight of waste. It is also a question of shopping behaviour, of efficient use, of production and lifestyles.</p> <p><b>Dematerialisation :</b> prevention at source, monitoring of production methods, of consumption and of efficient use as well as resource management in “closed loop” are gathered under the term of “dematerialisation policy”.</p> <p><b>Reuse :</b> is considered as one form of dematerialisation, favouring environmental, social and economic objectives. It allows to extend the life of products and so to reduce waste production at source.</p>
<b>Autonomous community of Catalonia (E)</b>	<p>General objectives of the plan are :</p> <ul style="list-style-type: none"> <li>- to encourage the reduction of the quantity and the hazardousness of the waste</li> <li>- to change consumers habits, orientating them towards “minimisation”</li> </ul> <p>(It seems that “minimisation” has the meaning of prevention at source.)</p>
<b>Hampshire County (UK)</b>	<p>The concept of prevention is expressed by “Minimising the consumption of finite resources”. The <b>first aim</b> of Hampshire strategy is to <b>try and avoid</b> use of materials through better product design and more efficient manufacturing process<sup>20</sup>. (...) The <b>next best option</b> is use materials which have the lowest environmental impact all throughout their lifecycle.</p>
<b>LIPOR (PT)</b>	<p>Reference to prevention as the basis of waste management hierarchy but no definition of prevention as such (cf national waste management plan PERSU)</p>
<b>Paris (F)</b>	<p>Departmental Plan : obligation to consider prevention –though no implementation measures are defined</p> <p>Prevention Plan of the Syctom : the motivation of prevention is waste minimisation. References to the <u>consumption of natural resources and to the evolution of our production and consumption patterns</u></p> <p>National Strategy clearly focuses on improving the production and consumption behaviours. In addition, it defines :</p> <ul style="list-style-type: none"> <li>- <b>prevention</b> = all the actions allowing to reduce the waste flows to be managed by the public authority</li> <li>- <b>qualitative prevention</b> = reduction of the hazardousness of waste produced</li> <li>- <b>quantitative prevention</b> = reduction of the weight and the volume of waste produced</li> <li>- <b>reduction at source</b> = actions lead by businesses before the product being consumed</li> </ul>
<b>Walloon Region (B)</b>	<p><b>Quantitative and qualitative prevention</b> are envisaged as a priority, thanks to measures targeting producers (eco-conception), consumers (eco-consumption), households and industry (management tools allowing for reducing waste generation).</p>

## 5.2. Which are priority targeted products / waste flows regarding prevention ?

Table here below presents the main waste flows identified as subjected to waste prevention measures.

It shows that packaging, paper and cards are the more common addressed municipal waste flows.

<sup>20</sup> p. 8

WASTE FLOW	PRODUCT FLOW	Autonomous community of Andalusia (E)	Brussels Capital Region (B)	Autonomous community of Catalonia (E)	Hampshire county (UK)	LIPOR (P)	Paris (F)				Walloon Region (B)
							PDEDMA	Nat. Strat.	SYCTOM	Paris	
<b>Biodegradable</b>			x	x		x		x			x
	Food wastage		x								
<b>Packaging</b>		x		x		x			x	x	
	Water in bottle		x					x	x	x	
	Sales in bulk							x			
	Plastic shopping bags		x					x	x	x	
	Beverage packaging		x								
<b>Paper/card</b>						x				x	
	Unaddressed mail and add		x	x				x	x	x	
	Newspapers / magazines (free)						x		x		
	Office paper		x				x	x	x		
<b>WEEE</b>										x	
<b>Textiles</b>										x	
<b>Bulky</b>			x								x
<b>Nappies</b>			x								
<b>Others</b>	Reusable products			x					x	x	x
	Eco-labelled products			x							x
	Recycled products			x							
<b>Hazardous</b>				x							x
	Healthcare								x		
	Batteries									x	
	Ink cartridges										

## 5.3. Which objectives are set?

### 5.3.1. Interest to set objectives

Quantified targets have their role to play both in:

- displaying political will to go forward.
- contributing to demonstrate the efficiency of prevention measures, thanks to a follow-up via harmonised statistics and in-depth studies allowing one to understand “how” and “why” waste arisings continue or not to grow.

Target figures reflect a certain ambition and create a constraint that will prompt actors into movement. They should set an ambitious yet credible level in terms of:

- timescale
- means mobilised.

This pre-supposes an in-depth knowledge of the sources of different waste streams, in order to define the baseline in comparison of which prevention actions will be monitored and measured.

Objectives may be :

- general or specific to certain waste streams
- quantitative, qualitative (aiming at changing behaviours) or educational (aiming at raising awareness).

### 5.3.2. General objectives identified for each region

	Prevention	Minimisation
<b>Autonomous community of Andalusia</b>	Stabilisation of waste generation, so that zero growth is reached	-
<b>Brussels Capital Region</b>	Absolute decoupling between waste generation per inhabitant per year and economic growth (PIB) = avoiding the generation of 1000 t of waste	-
<b>Autonomous community of Catalonia</b>	<ul style="list-style-type: none"> <li>▪ To encourage the reduction of the quantity and the hazardousness of the waste</li> <li>▪ To change consumer habits, orientating them towards <i>minimisation</i> (= <i>prevention</i>)</li> </ul>	-
<b>Hampshire County</b>	Overall year on year waste growth reduced to 1% by 2010 and 0,5% by 2020 Breaking the link between natural resource consumption and economic growth.	-
<b>LIPOR</b>	Stabilisation and reduction of municipal waste growth	-
<b>Paris</b>	National waste prevention strategy (2004) : stabilisation of waste production in France by 2008	National waste strategy (2005) : residual municipal waste to be reduced at 290 kg/inhab./year (2005), 250 kg/inhab./year (2010), 200 kg/inhab./year (2015)
	Ville de Paris : modifying behaviours and leading by example	SYCTOM : <ul style="list-style-type: none"> <li>▪ - 300.000 t /year in 5 years of municipal residual waste, notably thanks to prevention (- 0,5%/ year = - 65.000 t /year in 5 years)</li> <li>▪ objective of modifying the behaviours of all the actors (inhabitants, administration and enterprises)</li> </ul>
<b>Walloon Region</b>	-	-

**Formulating objectives in terms of decoupling or breaking the link between waste generation and economic growth** at local or regional level assumes the availability of indicators, in particular on purchasing power (average per capita earnings, turnover of businesses, etc.), so as to be able to distinguish the effects of preventive measures from the consequences of an economic recession in particular on streams such as packaging waste, WEEE and bulky waste.

One could imagine as a **minimal objective** of any waste prevention strategy the stagnation of per capita waste production.

It might be justified to **modulate the (quantitative) objectives over time**.

For example, in the short term (5 years), the idea would be for the local authorities to control the evolution of waste production (by slowing the rate of increase of per capita waste production<sup>21</sup> or by breaking the link between the production of municipal waste and economic growth on their territory). In the medium term (10 years), the objective could be to halt any further increase in per capita waste production.

For the long term (15 – 20 years), the target could be to achieve an annual reduction in per capita waste production.

### 5.3.3. Specific objectives identified for each region

	Prevention	Minimisation
<b>Autonomous community of Andalusia</b>	Reduction by 30 of June of the 2001 of a minimum of 10% by weight of the total quantity of packaging waste. Reuse is to be favoured according to the Packaging law 11/97 through deposit and return systems.	
<b>Brussels Capital Region</b>	<p><b>Quantitative objectives</b></p> <p>Achieve the decoupling of <b>packaging waste</b> generation (both household and non-household) from economic growth (PIB)</p> <p>Achieve the decoupling of <b>paper waste</b> generation (both household and non-household) from economic growth (PIB)</p> <ul style="list-style-type: none"> <li>- 3.600 tons <b>unwanted advertising and mails</b> (= 21 % households applying the sticker on their letter box)</li> <li>- 3.300 tons free disposable <b>shopping bags</b></li> <li>- 1.400 tons <b>food wastage</b> (= - 10%)</li> <li>- 10% of <b>biodegradable waste</b> to be treated in comparison with 2002</li> <li>- 2000 T paper waste (among which – 1000 T at households)</li> <li>+ 10% reuse of <b>bulky waste</b> (in comparison with 2002)</li> </ul> <p>10% reuse</p> <ul style="list-style-type: none"> <li>- 10% <b>paper waste</b> in all schools</li> <li>- 30% <b>drink packaging</b> waste in primary schools</li> <li>- 10 to 30% <b>paper consumption</b> per office worker in each office</li> <li>- 10 % <b>unsorted waste in offices</b><sup>22</sup></li> <li>- 10 to 30% <b>toner and ink cartridge consumption</b> per office worker in each office</li> <li>- 5% <b>energy consumption linked to paper printing</b></li> </ul>	<p>Achieve an effective reduction of “<b>unsorted</b>” <b>household waste</b> (kg/inhab./year)</p> <p>Generalisation of the objective of the Federal Plan for Sustainable Development (reduction of unsorted waste by 30 kg/ employee)</p>

<sup>21</sup> e.g. the strategy developed by Hampshire.

<sup>22</sup> = real objective or reduction ?

	<p><b>Qualitative objectives</b></p> <p>60% households buy green schools products 10% households practising home composting</p> <p><b>Educational objectives</b></p> <p>To double the % of households being able to recognise ecological products (it means 80% households) To make raise from 6% to 30% the proportion of people which think about renting before buying To make + 50% population think about "second-hand" goods in the textile or furniture sector</p>	
<p><b>Autonomous community of Catalonia</b></p>	<ul style="list-style-type: none"> <li>▪ Programme 1995-2000 planned to decrease the growth rate of packaging waste by 6.2% for the period 1995-1997, and by a similar percentage for 1998-2000.</li> <li>▪ Law 11/1997 on packaging and packaging waste: 10% reduction in total weight of packaging generated</li> <li>▪ To prevent the use of materials with a harmful effect on the environment and the health of people. (<i>businesses, administration</i>)</li> <li>▪ To minimise the use of packaging and packages, the fraction of waste that is undergoing the most significant increase in volume. The aim is to fulfil the objectives for reduction called for by the legislation on packaging waste. (<i>businesses, administration, consumers</i>)</li> <li>▪ To promote the reuse of materials and products. (<i>businesses, administration, consumers, schoolchildren</i>)</li> <li>▪ To involve all sectors in the awareness of and the need for <i>minimisation and prevention</i> (<i>businesses, administration, consumers, schoolchildren</i>)</li> <li>▪ To incorporate into everyday life, habits that encourage <i>minimisation and reduction</i> (<i>consumers, schoolchildren</i>)</li> <li>▪ To extend this fact to the packaging industry, encouraging closer dialogue (<i>businesses</i>)</li> </ul>	<ul style="list-style-type: none"> <li>▪ To promote the minimisation of waste that is difficult or impossible to reuse, as it is impossible to reintroduce it into production cycles (<i>businesses, administration, consumers</i>)</li> <li>▪ To involve all sectors in the awareness of and the need for <i>minimisation and prevention</i> (<i>businesses, administration, consumers, schoolchildren</i>)</li> <li>▪ To incorporate into everyday life, habits that encourage <i>minimisation and reduction</i> (<i>consumers, schoolchildren</i>)</li> </ul>
<p><b>Hampshire county</b></p>	<p>The vision is underpinned by <b>four aims that reflect the principles of resource productivity and the waste hierarchy</b>:</p> <ul style="list-style-type: none"> <li>- To extract primary resources only where it can be shown that the need cannot be met in a more sustainable way</li> <li>- To change minds and behaviours to use all resources efficiently and minimise wastage at all stages of production and consumption</li> </ul> <p><b>"engaging the process chain"</b></p> <p>Achieving the vision is to be done by addressing all the stages of the design, production and consumption of goods and services.</p>	<ul style="list-style-type: none"> <li>- Where waste is produced, to maximise opportunities for business and the community to reuse, recycle and compost such wastes to produce sustainable products</li> <li>- To recover value from, and dispose of, unavoidable waste (that mixed waste left over after reuse, recycling and composting) using sustainable means, as far as possible avoiding the landfilling of biodegradable or recyclable waste</li> </ul>
	<p><b>Stage</b></p>	<p><b>Objective</b></p>
	<p>1. Design</p>	<p>Stimulate the design of new products, processes and technologies that increase material resource efficiency, and decrease the environmental impact, AND social inequalities</p>
	<p>2. Business practice</p>	<p>Help local business community to improve business practices and processes to maximise resource efficiency and minimise waste</p>
	<p>3. Retail</p>	<p>Ensure that retailers provide products and services locally that have been designed to maximise material resource efficiency and reduce waste</p>
	<p>4. Procurement</p>	<p>Influence Hampshire's major private and public organisations to ensure the procurement of products and services which maximise resource efficiency and reduce waste</p>
	<p>5. Consumption</p>	<p>Change the consumption patterns of Hampshire's community to ensure that products are not only sustainably sourced, but efficiently used.</p>

<b>Paris</b>	National waste strategy (2005) : - 65 kg/inhab./year biodegradable waste thanks to home composting							
<b>Walloon Region</b>	- 50% industrial waste as from 2010 in comparison with an evolution without taking any kind of action							
		1995	2000		2005		2010	
		kg/hab/an	taux	kg/hab/an	taux	kg/hab/an	taux	kg/hab/an
	Residual waste	367	7 %	340	19 %	317	31 %	292
	Bulky waste	159	6 %	166	17, 5 %	160	29 %	153
<b>Household waste</b>	<b>526</b>	<b>6 %</b>	<b>506</b>	<b>18 %</b>	<b>477</b>	<b>29 %</b>	<b>445</b>	

Some comments can be made here :

- even general objectives vary substantially in their wording
- there seem to be little coordination between them
- references to potential monitoring or measurement indicators are very few or even non-existent
- most of the time, no deadlines are expressed – perhaps with the view to refer implicitly to the deadline of the plan itself.

## 5.4. Which tools are used : economic, legal, voluntary ?

The following are some of the basic tools of a local prevention policy.

### 5.4.1. “Organisational logic”

This essentially concerns the creation of administrative units with a view to preparing, implementing and coordinating a municipal waste prevention policy.

The organisational logic also includes a waste collection system that makes it possible to increase citizens' awareness of their own waste production (and its impact), and to create conditions favourable to a change of attitude. This can proceed from:

- the creation of new facilities or services
- regulatory provisions, agreements or technical provisions aimed at optimising the waste collection system in terms of frequency, modes, size of containers, collection of specific streams and so on.

### 5.4.2. Regulatory (legal) instruments

Regulatory instruments help in different ways to define goals and a structure for action. They are also generally considered the most effective for promoting the elimination or the reduction of waste at the source at a qualitative level.

One can cite for example:

- municipal ordinances banning the disposal of used batteries in the trash bin
- penalties for non-performance of certain acts or for banned behaviour through fines or higher tariffs

### 5.4.3. Financial instruments

One can cite for instance :

- fees and taxes for the removal of household waste which tend to the application of the Polluter-pays or the Producer responsibility principles, for instance through the introduction of a system of proportional and/or differentiated tariffs – if possible:
  - o with a fixed share and a variable share (for a balanced budget),
  - o where sorted waste is nonetheless not totally "free",
  - o and where perverse effects are limited by the possibility of choosing alternative solutions (e.g. assistance with home composting, information on how to satisfy a need in different ways and/or on the availability of products that do not generate waste, etc.)
- subsidies or rewards for exemplary behaviour

- or deposit systems...

Some legal and economic tools not targeting prevention (like landfill taxes) might in any case have indirect preventive effects.

#### 5.4.4. Social instruments

By “Social instruments”, we mean instruments promoting participation, information and training.

For example:

- **public authorities leading behaviour by their own actions**, at the level of (among others):
  - o public procurement of goods and services
  - o the behaviour of staff of public administrations.
- a **participatory approach** that is adopted by operators and the target public
- the creation of a local dynamic through **relay-persons** involved with the different groups to be mobilised
- **adequate communication**, i.e.:
  - o containing a message adapted and comprehensible to the target public (enabling the public to understand the challenges and the possibility of becoming individually involved)
  - o information that gives new prestige to the territory and its inhabitants
  - o using the most appropriate medium in terms of the target public.

The 2 ranges of tables here below list the potential prevention actions which have been identified in the 7 regions under review.

#### 1. General actions addressing all the waste flows

##### Legislative / regulatory instruments

Types	Flows	Targeted audiences	Partnerships
Ecological advertising	All	Producers	-
Bans on some types of advertisings		Producers/consumers	-
Adaptation of procurement rules		Public authorities Public administrations	-

##### Organisational / Structural

Types	Flows	Targeted audiences	Partnerships
Creation of a consumption / waste prevention department	All	Regional or local administration	-
Education programmes and training on waste prevention, dematerialisation		Public officers Local decisioners Trade unions Teachers Elderly people	Ministry for education Universities
Eco-centres Demonstration sites		Citizens Pupils	-
Waste prevention forums		Administrations Businesses Citizens Public authorities	-
Public observatory of consumption patterns		-	-
Creation of a label for waste prevention		Businesses	-
Advisory services, Administrative and technical assistance, Eco-counsellors		Local authorities Businesses	-

**Economic / financial**

Types	Flows	Targeted audiences	Partnerships
Differentiated taxation system for advertising	All	-	-
Rewards of incentives for the development of actions in the field of prevention		Local authorities Businesses	-
Funding of pilots projects		Businesses Local authorities NGOs	-
Funding of R&D		Businesses	-
Funding of waste prevention campaigns		Local authorities	-
Funding of NGO networks (in the field of reuse or eco-consumption)		NGOs	-
PAYT and Polluter-Pays systems		Citizens - consumers	-

**Voluntary / Participative**

Types	Flows	Targeted audiences	Partnerships
Voluntary agreements	All	Businesses Industry sectors	-
Funding of R&D		Businesses	-
Deontology code on advertising		-	-
Promotion of eco-labels		-	-
Diffusion of best practices		Businesses	-
Charters on eco-consumption		Businesses	-

**Educative/ communication**

Types	Flows	Targeted audiences	Partnerships
Information tools : websites, magazines, newsletters, radio and TV programmes, exhibitions, fairs,...	All	-	-
Waste prevention campaigns		Citizens	Local authorities
Education programmes and training on waste prevention, dematerialisation + furniture of teaching tools		Public officers Local decisioners Trade unions Teachers Elderly people	Ministry for education Universities
Eco-counsellors		Local Authorities Businesses	-
Education to prevention programmes		Pupils	Ministry of Education Schools
Involvement / participation of the public to the decision process		-	-
Publications (ex : guides on public purchasing, leaflets on eco-consumption, guides on presents without waste, catalogues of recycled products...)		Local authorities / Admin. Businesses Citizens	-

## 2. Actions on specific waste flows

WASTE FLOW	PRODUCT FLOW	TOOLS					Target audience	Partnership
		Organisational	Legal	Economic	Educational / Voluntary	Information / communication		
Biodegradable		Development of a compost masters network Training Setting up of pedagogic sites		Funding of home composting bins	Promotion of home composting	Technical documents Diffusion of best practices	households	
	Food wastages			Funding of pilots			Households pupils	
Packaging			Mandatory prevention plans for packaging producers		Eco-design		Producers	
						Information on alternatives to over-packaging	Consumers pupils	distributors
	Plastic shopping bags	Working group	Ban	Subsidies to municipalities for the distribution of reusable bags	Promotion of reusable bags		consumers	Producers Distributors Small shops
	Water in bottle => tap water	Distribution of water fountains					Schools Organisers of fairs and public events	Water supply services Administrations Schools
	Beverage and food packaging	Distribution of reusable dishes			Encouraging reusable dishes		HORECA sector Schools Organisers of fairs and public events	
	Sales in bulk						Consumers	Distributors Small shops
Paper/card			Agreements with producers about recycled paper					
	Unaddressed mail and add		Take back duty Agreement with producers about unoccupied houses or letter boxes		STOP PUB stickers			
	Newspapers / magazines (free)							
	Office paper	ICT dematerialisation			ICT dematerialisation	Workers awareness-raising	Administration Public authorities Schools	
	Phone directories		Mandatory take-back duty		Sectoral agreement on eco-design and dematerialisation		Producers	
	Office stationery		Drafting of standard specifications		Information on paper and inks with a better eco-balance	Guide on office stationery purchasing	Professional and public purchasers	
Others	WEEE	Development of eco-labels Choice for ICT dematerialisation Expert group Development of reuse networks Extension of guarantee (quality assurance system)	Agreement with producers favouring reuse, recyclability, energy savings and environmental friendly processes and products	Financial or fiscal incentives to reuse networks Taxation system favouring repair	Encouragement of ICT dematerialisation Diffusion of information on reuse and repair	Encouragement of debates on the dematerialisation potential of ICT Awareness raising	Consumers Citizens	Producers Social economy enterprises
	Textiles							

WASTE FLOW	PRODUCT FLOW	TOOLS					Target audience	Partnership
		Organisational	Legal	Economic	Educational / Voluntary	Information / communication		
	Bulky	Development of reuse networks Extension of guarantee (quality assurance system)	Take back duty Reuse standards for inert waste	Financial or fiscal incentives to reuse networks Taxation system favouring repair	Diffusion of information on reuse and repair possibilities	Encouragement of selective dismantling Diffusion of information on reuse and repair possibilities	Citizens	Social economy enterprises
	Nappies	Development of reusable nappies services				R&D	Young mothers	National organisation for Childhood Care
	Reusable products	Green procurement Development of reuse networks Extension of guarantee (quality assurance system) Sectoral agreements		Financial or fiscal incentives to reuse networks Taxation system favouring repair	Diffusion of information on reuse and repair	Awareness raising	Public purchasers HORECA sector Consumers Pupils/ schools	Producers Social economy enterprises
	Eco-labelled products		Green procurement	Development and stimulation of markets		School campaigns Workers information Dedicated spaces in shops	Professional purchasers Consumers Pupils/ schools	Distributors
	Recycled products		Green procurement	Funding of R&D Development and stimulation of markets		School campaigns Workers information Catalogue of recycled products	Professional purchasers Consumers Pupils / schools	Producers Universities
	Other eco-products (refillable, with a long life span, low-energy products)		Green procurement	Development and stimulation of markets		School campaigns Workers information	Professional purchasers Consumers Pupils / schools	
Hazardous		Selective collection	Regulation of labelling prescriptions		Technical guidance	Help to the identification Awareness raising	Consumers citizens	distributors
	Healthcare							
	Batteries				Voluntary agreement with industry			
	Ink cartridges	Selective collection					Offices Administration	

The following table presents more theoretically and in terms of the different stages of the "resources-products-waste" cycle, a classification of prevention measures. It shows that the planning documents of the seven partners under review do not necessarily take all possible tools into consideration.

<b>Classification of prevention tools at the different stages of the "resources- products-waste" cycle</b>		
	<b>Possible</b>	<b>Identified in the study</b>
<b>Production</b>	Benchmarking of local producers <sup>23</sup>	Tender specifications Internal regulations of public administrations and bodies Support for and promotion of eco-design (financing of research) Dissemination of best practice to producers Data bank on eco-responsible suppliers <u>At national level:</u> Taxes on products Ban on use of certain materials
<b>Distribution</b>		Convince distributors to offer eco-responsible products
<b>Sale</b>		Information on sales outlets Identification of environmentally friendly products or those not generating waste, that are rechargeable, etc.
<b>Purchase</b>		Convince (through information) consumers to choose re-usable products or those with a long utilisation period (e.g.: rechargeable batteries) Convince (through information) consumers to examine their needs: <ul style="list-style-type: none"> <li>- new or second-hand product?</li> <li>- individual or shared ownership, or leasing?</li> <li>- purchase of a product or a service?</li> </ul>
<b>Use<sup>24</sup></b>	Increasing consumers' awareness of correct use of the product Increasing awareness of reasonable use of consumer goods Assistance putting a Product Service System into place	Dematerialisation in offices
<b>Re-use</b>		Deposit systems Information on possibilities of repairing a product Creation of structure for channelling used products with a view to repair and/or re-use
<b>Collection</b>	Associating collection service providers with prevention e.g.: making use of their knowledge of waste sources e.g.: remunerating them per tonne of waste avoided	Promotion of home composting Organisation of collection so as to encourage prevention (arrangements, frequency, containers, invoicing – pay-as-you-throw (PAYT), etc.) Collection of hazardous waste

<sup>23</sup> For instance the annual competition called "The annual Resource Saver" organised by YTV in the agglomeration of Helsinki, and which allow to the winner company to make the most of its image.

<sup>24</sup> Use determines the lifespan of a product

To achieve these objectives, actions should preferably be arranged in a **hierarchy** both temporally (priorities) and in terms of means allocated, after an analysis of:

- relevance (link with objectives)
- effectiveness (result)
- cost
- efficiency (cost/result)
- creation of a local or regional dynamic (that could be educational or socio-economic)
- etc.

This type/level of information does not enter into the scope of this study, but it appears that actions creating strong constraints could preferably be implemented over the long term (with appropriate information and education support measures), while those giving rise only to limited obligations could be mobilised more quickly.

## 5.5. Target audience?

5 main target audiences were identified for prevention actions :

- public administrations (leading by example)
- commerce and industry
- offices
- households
- schools.

An in-depth knowledge of the waste characteristics and of the local socio-economic network might suggest to take into consideration other audiences like young mothers, small retailers and food shops (which are both an audience and an information vector), disadvantaged people, patients...

## 5.6. Partnerships set up for implementing the plan ?

Over and above the target public, i.e. the public that will have to change its practices, there is a need to consider the actors whose collaboration can or must be sought in terms of:

- support
- action (operational actors on the ground)
- relays
- mediation
- examples
- interest.

### **Which stakeholders play a role in the planning waste management process at the regional scale ?**

- politicians
- administrative staff and planners
- contractors
- public organisations
- private actors
- the wider public.

Espace Environnement (B)<sup>25</sup> recommends the development of partnerships bringing together three types of actors:

- the public sector (municipalities, schools, public housing services, social workers, etc.)
- the private sector (shops and supermarkets, trade unions, health cooperatives, doctors, pharmacies, etc.)

<sup>25</sup> A Belgian non-profit organisation that provides environmental consulting; its waste prevention service has provided support since 1997 for numerous prevention projects, in the Walloon Region and cross-border projects.

- associations (continuing education, women's movements, associations for the integration of immigrants, associations defending family rights, health, consumer rights, etc.)

Besides the political will, the competency for municipal waste management, and the financial and technical means, **public authorities** have a key role to play : indeed, they are the only actors who can defend the notion of “general interest” and they have the means that can allow a balance to be found in the inevitable power struggle likely to distort relations between private producers/distributors and NGOs/associations on prevention issues.

When prevention is promoted by the Regional Authority, this will have to ensure the collaboration of local authorities in order them to appropriate the project and feel involved.

Field work, involving diagnosis, communication, assessment of actions, etc. shall better be entrusted to **neutral and competent recognised operators**. Local associations used to the promotion of prevention can bring a methodology for communicating towards a range of various actors, and convey messages more efficiently (because of an absence of political color).

Retailers, distributors, gardeners... but also doctors, pharmacies, are not only key target audiences, but also key partners to convey messages towards their clients or patients.

The interest of creating partnerships a the local scale is clearly to share roles in order to favour complementarities and efficiency in conveying messages and reaching the citizens-consumers.

## 5.7. Monitoring and assessment method (basis data and indicators) ?

The setting up of objectives could be better linked to the choice of available (or potential) indicators.

<b>Autonomous community of Andalusia</b>	No specific information mentioned in the plan as such.
<b>Brussels Capital Region</b>	<ul style="list-style-type: none"> <li>- punctual analysis of the effects of awareness-campaigns</li> <li>- analysis of sales figures</li> <li>- opinion surveys</li> <li>- annual behaviours surveys</li> <li>- waste barometer indicators</li> </ul>
<b>Autonomous community of Catalonia</b>	No details on assessment measures within the plan itself. Revision of the plan in 2003 Annual waste management statistics
<b>Hampshire county</b>	No details found within the strategic documents, but a methodology for the monitoring of the household bin's content has been developed in the scope of the Integra Project.
<b>LIPOR</b>	No specific information provided.
<b>Paris</b>	<ul style="list-style-type: none"> <li>- 15 % plastic shopping bags over 2 years in France</li> <li>- SYCTOM : has observed a decrease of municipal waste arisings from 507 (2001) to 499 (2004) kg/inhab./year</li> </ul>
<b>Walloon Region</b>	Annual report on the assessment of the environment –including waste issues available on the website of the region.

Assessment of the implementation of preventive actions requires in particular :

- delimitation of a zone of study and/or reference households
- clear identification of the streams on which actions were taken: household or municipal waste (the latter includes waste from businesses and crafts enterprises).

To monitor and evaluate the results of actions implemented, there is a need for an initial state and monitoring indicators.

**The initial state** can consist in information such as:

- waste sources
- avoidance potential
- possibilities for action
- human, financial and material resources

**Monitoring indicators:**

A distinction can be made between *results* indicators and *means* indicators.

a) "results" indicators

- indicators measuring results (indicators of the break in the link between production of waste and earnings or economic activity, and in terms of demographic changes; indicators of eco-responsible consumption such as sales of ecological products, the evolution of repair service activities, etc.)
- awareness indicators (e.g. opinion polls, number of participants in an information meeting)
- participation indicators (e.g. number of users of a service, tonnes of batteries collected, etc.)
- satisfaction indicators

b) "means" indicators

- sustainable development indicators (to measure environmental, economic and social benefits)
- quantification and analysis of means implemented (e.g. number of publications, number of meetings, etc.) – see descriptions in Annexes for further details

The choice of the **time period** over which an action is carried out and at the end of which results are expected is an important factor. Indeed, there has to be sufficient time allowed to convince the target public, to enable it to change its behaviour and to create a sustainable local dynamic.

While the evaluation of results is often difficult and complex, it should at least **make it possible to identify the measures that are the most eco-efficient.**

### 5.7.1. Budget for implementing waste prevention actions ?

Budgets referred to in waste management plans not always indicates the amount of money specifically spent for prevention by the administration under review. When available, the most relevant information seemed to be the amount of money spent for waste prevention per inhabitant.

	Number of inhabitants	Waste management plan implementing budget	Prevention budget	% allocated to prevention	Amount per inhabitant per annum
Brussels-Capital Region (2003 – 2007)	1,000,000	€ 7,704,500	€ 5,940,000	77%	€ 1.5
Autonomous Community of Catalonia (2001 – 2006)	6,365,000	€ 500 M	€ 30,050,000	6.2%	€ 1
Walloon Region (1999-2010)	3,368,250		> € 1.8 M per year		> € 0.55

<b>Brussels-Capital Region (2003 – 2007)</b>					
Budget headings	Dematerialisation households and schools	Dematerialisation offices	Social economy	Home composting	TOTAL
Amounts	€ 2.5 M	€ 1.23 M	€ 1.67 M	€ 0.5 M	€ 5.9 M

<b>Autonomous Community of Catalonia (2001 – 2006)</b>				
Budget headings	Information, education and participation of citizens	Actions geared towards producers/distributors	Actions geared towards public administrations	TOTAL
Amounts	€ 18 M	€ 6 M	€ 6 M	€ 30 M

The present study has not identified how or in which proportions paying for prevention allows for effectively reducing waste management costs downstream.

## 6. Suggestions & recommendations for LRAs willing to develop waste prevention

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### 6.1. Observations and recommendations

#### 6.1.1. The relevance of planning waste prevention

The Framework Directive in its present form already obliges the Member States to take prevention into account in waste management plans (Art. 7 referring to Art. 3).

To date, however, neither the content nor the binding nature of waste management plans has been established at European level.

Waste prevention at source shall mean the prevention of the entire cycle of resources-products-waste. Its implementation implies the coordination of different levels of power and competences, as well as an extensive spatial field.

Elements of prevention are found at present – and quite logically – in a patchwork of documents of varied natures:

- waste management plans
- national, regional and local action programmes and policy guidance programmes.

This assessment does not favour a coordination and an integration of the management of the “Waste-Products-Resources” Cycle.

The proposal for the new Waste Directive takes account, and rightly so, of these aspects by providing for:

- the integration of prevention and re-use measures in waste management plans
- and the development of action programmes based specifically on prevention.

It is nevertheless regrettable that this new draft Directive, rather than confirming the scope of the concept of prevention and affirming it as a real objective, contains no definition at all, and refers only to a general objective of reduction of the environmental impact of waste generation.

#### 6.1.2. What is the most appropriate level of power for planning waste prevention?

In our view, this question does not call for a general answer. The idea is not so much to associate prevention with a particular level of authority, but rather to associate it with a territory that allows effective involvement of the different power levels and leaves room for varied means of action.

**The State** in principle has the competences to impose waste prevention at source and the technical and financial means to support, coordinate and promote it by

- steering waste management policy
- also and more importantly by influencing the supply of goods
- and creating a policy for sustainable use of resources.

**The regional level** is strategic in so far as:

- it is often the level at which a waste management plan is developed – an exercise which supposes study of the waste sources to be treated and the possibilities of acting on them through prevention at the source and waste minimisation in the broad sense (recycling and recovery);
- at this level, prevention is a response to constraints such as:
  - o the increase in amounts of municipal waste, symptomatic of excessive consumption of resources
  - o the increase in treatment costs
    - as a result of the increase in quantities to be treated as regards treatment capacities

- due to regulatory limits (e.g. Directive 1999/31/EC on the landfill of waste), discharge standards (e.g. the Incineration Directive) or recovery requirements for each type of waste stream (packaging, WEEE, batteries, etc;)
  - "NIMBY" ("not in my backyard") phenomena.
- it can allow for a relay of the difficulties and needs encountered by local authorities in the field to the national governments, while ensuring that the (financial) resources granted by the State are indeed allotted under the pre-determined conditions.
- it allows rapid dissemination of messages (through the press, among other means), which can also be adapted to the local authorities.

The coordination of prevention initiatives on a regional scale thus appears essential for:

- integrating them into other waste management options
- promoting and coordinating action programmes over a large geographical area.

The **local level** is of course the level of the living and consumption environment, but also of a certain identity.

It could be defined as the smallest common denominator of territorial uniformity, because it is the level:

- where waste is collected and treated
- where policies adapted to the realities on the ground can be decided
- where a participatory approach (feasible and open to evaluation and improvement) and communication based on proximity are possible.

Prevention opportunities at the **local level** partially overlap the advantages of prevention policies at regional level in terms of :

- reducing waste in general and residual waste in particular
- anticipating the evolution of regulations
- increasing the awareness of different actors to the environmental problems caused by waste locally but also globally, the use of resources and more sustainable consumption
- making users of waste management services more responsible
- improving the local environment
- creating a local dynamic around finding alternatives (such as repair or re-use services, etc.)
- potential savings in terms of procurement or the costs of waste for inhabitants
- developing citizens' civic and ecological responsibility through better information and better expression of their opinions
- etc.

These perspectives might also help bring about an evolution – overtime and at least partially – in the concerns if not the competences of the local waste management authorities relating to the resources-products-waste cycle.

### 6.1.3. How can the different levels of responsibility be integrated?

The sharing of responsibility for planning waste management varies from one Member State to the other. There are cases where local authorities appear to have more responsibilities in terms of waste management than regional authorities.

The regional level is strategic because:

- it permits optimal articulation of the local and national levels of power (in terms of level of action, coordination of geographical areas and information relays);
- it allows a more participatory approach than the national level;
- it allows economies of scale that cannot be achieved at the local level.

At regional level, the development of partnerships with the upper and lower levels of power is essential.

A key element for a region that wishes to plan and implement waste prevention will be to motivate the participation of the local authorities through:

- partnership agreements (measure identified in the Walloon Region, but also Flanders, the Netherlands)

- a policy of granting subsidies for prevention initiatives (measure identified in the Catalonia, Walloon Region, etc.)
- emulation and benchmarking (being implemented in the Walloon Region and identified in the Netherlands or in Helsinki for instance).

#### 6.1.4. What does the concept of prevention cover?

##### **A. Need for clarification of the concept**

The study reveals that the concept of prevention needs to be clarified and distinguished from the concept of waste minimisation (in the sense of reducing quantities of waste for disposal).

Different interpretations of the concept of prevention have indeed been identified, some of which integrate actions coming under recycling in the broad sense rather than prevention at the source.

To be effective, any Community programme promoting waste prevention should first clarify the areas of action concerned and in particular make a clear distinction between prevention and recycling.

We particularly have in mind the need to assign a precise status to the different operations of re-use, repair, home composting or neighbourhood composting and the selective collection of dangerous waste.

In terms of awareness and communication, the act of prevention is also an extension of the act of sorting, and the question arises of whether a connection with waste minimisation in the broad sense is interesting at this level.

##### **B. Reduction at the source**

A hierarchy can be identified within the concept of prevention to be recommended, such that it will focus as far as possible on the "upstream" stages, i.e. design, manufacture, distribution, sale and purchase

#### 6.1.5. What are the motivations of prevention?

Prevention is motivated by both:

- budgets (reducing the quantity of waste to be treated)
- and the need for sustainable development.

We would nonetheless note that there are not enough explicit ties within waste management plans to the fiscal effort made for prevention and the savings achieved.

Today, however, informing citizens and other private actors about non-sustainable ways of life has become a challenge for society.

The relevance of prevention measures goes beyond the purely local and environmental framework. Prevention measures have advantages that are hard to quantify and "monetize":

- economically: less dependence on imports of raw materials
- socially:
  - o creation of local employment and increased awareness of the population
  - o strengthening of dialogue and social ties
  - o diversification of consumption alternatives
  - o development of creativity and self-sufficiency; citizens reclaim the possibility to invent alternatives and to act on their daily existence

### 6.1.6. Which waste streams should be targeted as a priority?

The products on which efforts will have to focus should be identified on the basis of detailed knowledge of waste sources, preferably by geographical area, sector of activity and period of the year.

The two main streams that have been the focus of prevention initiatives to date are *packaging* and *biodegradable waste*. These are also major municipal waste streams in quantitative terms.

It seems that all the streams on which preventive actions are possible (i.e. those for which a change of behaviour would constitute important progress in waste prevention, whether quantitative or qualitative) have not yet been explored.

Another factor coming into play in decisions, in addition to knowledge of arisings, could be the concerns of local actors.

In this context it is possible to distinguish:

1) products that represent a large proportion of waste	<ul style="list-style-type: none"> <li>- organic waste</li> <li>- packaging</li> <li>- bulk refuse</li> <li>- WEEE</li> <li>- water bottles</li> <li>- free press and advertising press</li> <li>- etc.</li> </ul>
2) problematical products	<ul style="list-style-type: none"> <li>- batteries</li> <li>- cleaning products</li> <li>- small hazardous wastes</li> <li>- etc.</li> </ul>
3) exemplary or symbolic products at local level, such as:	<ul style="list-style-type: none"> <li>- plastic shopping bags (and especially in tourist areas, islands, etc.)</li> <li>- re-usable nappies</li> <li>- compact fluorescent light bulbs</li> <li>- electronic invoicing</li> <li>- dematerialised gifts</li> <li>- etc.</li> </ul>

In quantitative terms, it is important to keep in mind that municipal waste is not made up exclusively of household waste, but also often includes more than one third of waste generated by hotels, restaurants and cafés, markets, parks, craft activities, etc.). It would be illusory to claim that this waste stream could be reduced solely through actions targeting households.

Commercial and industrial waste also offers important latitude for preventive action. The Netherlands, for example, first developed prevention among enterprises – in the broad sense - (from 1996), and only four years later (2000) among citizens-consumers.

### 6.1.7. Which prevention objectives should be set? Are target figures useful?

The new draft Directive establishes that the Member States shall determine prevention objectives.

Prevention objectives may be **general or specific** to certain waste streams.

For general objectives in particular, it seems important from the standpoint of credibility and effectiveness to provide for:

- changing requirements over time
- their flexibility (re-evaluation) in time.

**Objectives set in absolute terms** of quantities of municipal waste are interesting as guide values for prevention and as a reference value for planning waste management infrastructure. Though they should be clearly coupled to relative objectives associating waste arising to their sources.

#### **What about indicators set in terms of the break in the link between quantities of waste and economic growth?**

The new thematic strategy and the proposal for a new Framework Directive intend to promote *objectives and measures designed to break the link between economic growth and the environmental impacts associated with the generation of waste.*

There can be concerns about which image is more accurate, a mountain of waste that is constantly growing or a relative evolution curve that is slowing, particularly because in the developed countries, an increase in the standard of living does not always lead to an increase in the volume of waste (only during a transitional period) and because dematerialisation is easier to promote in more affluent populations.

Objectives set in terms of **household waste alone** will allow greater visibility for actions on certain target publics or even on certain waste streams.

The limits of a weight-based **indicator** are that it does not account for volumes (essential factor for transport) or units produced (a key element for recycling).

It is also useful to set **objectives in qualitative terms**, assuming that they are measurable via quantified indicators (e.g. percentage of population having received an information, having understood the information and/or having modified their behaviours, number of training sessions or meetings organised, number of leaflets distributed, etc.)

### 6.1.8. How can attainment of targets be monitored?

The new proposal for a Directive also establishes that, for prevention programmes, the Member States shall determine *specific qualitative and quantitative targets and indicators for any measure or combination of measures adopted in order to monitor and assess the progress of individual measures.*

In general, there is no single method for assessing the effectiveness of preventive actions, but different methods specific to each initiative (measure or campaign) taken and which will require a certain type of indicator (quantitative or qualitative – see here after). It is nonetheless essential for the local authorities to assess the impact of prevention campaigns and to identify the most effective instruments. Comparative analyses (benchmarking) of experiences can therefore be relevant tools.

An assessment using data consolidated at national level can distort or mask important differences between urban and rural areas for example.

Basic indicators and references should consequently be developed at local level (via preliminary tests or pilot projects, for example).

## Measure what?

It is possible to make a distinction between means indicators and results indicators.

- a. Results indicators:
  - decrease in the production of waste
  - improvement of the quality of waste produced
  - avoided expenditures for waste management, e.g., transport, storage, processing, disposal costs;
  - in the field of changes in technology and product design : market share of waste preventing processes and products; number of 'design-for-environment' programmes;
  - in terms of education and behavioural changes of actors : e.g., rates of participation in on-site composting; reaction to door-to-door awareness raising campaigns, number of "visitors" to waste prevention Internet sites, sales figures for green products; extent of "greener procurement" of products and services by government entities; percentage of the population informed, number of training sessions or meetings organised, number of leaflets distributed, etc.
  - in terms of environmental impacts (effects on the quality of air, water, soil, etc.), as set out in the draft Directive, but there are concerns about the capacities of local and regional authorities to comprehend these effects in a life cycle perspective
- b. Means indicators:
  - waste prevention expenditure, e.g. funding for household compost bins;
  - the economic and fiscal instruments implemented (waste management fees, landfill taxes and disposal taxes, unit-based fees level, deposit-refund, advance-disposal fees, taxes on raw materials, subsidies;
  - regulatory measures and provisions relating to prevention: e.g. waste policy concepts, material or product bans, disposal bans
  - economic and communication instruments relating to waste prevention, e.g., newspaper and television ads; waste prevention indicators themselves

## Measure how?

Analysis methods can be:

- global (covering all waste or an entire population)
- specific to given waste streams or origins
- limited to population samples (a few families, a building, a neighbourhood) selected at random or in such a way as to target a certain public, etc.

These can include:

- analyses of the composition of waste
- opinion polls and analyses of behaviours
- surveys on penetration, reputation, etc.

The **limits of the monitoring of prevention measures at local level** are of several kinds:

- the availability of accurate quantitative data on waste production before and after implementation of the actions
- difficult access to industrial and commercial statistics (use of raw materials, sale of products, production of specific types of waste, etc.) relevant at the local level
- difficulties monitoring and assessing changes in behaviour or awareness over the long term
- the variable overall context, from which it is difficult to isolate a specific factor of change (synergy with other waste management initiatives).

### 6.1.9. What tools, what target publics and what partnerships?

The first question we have to ask ourselves with regard to the types of measures to be implemented is: What is the desired behaviour? Do we want to use the carrot or the stick, i.e. encourage the desired behaviour or penalise undesired behaviour?

Preventive action falls into four main categories:

- legislative/regulatory tools
- structural tools
- economic and fiscal tools
- educational and voluntary tools.

These tools will necessarily be implemented with respect to given:

- waste streams
- target publics

and with the collaboration of specific partners.

See in this connection the tables of pages 24 to 25, which describe a number of instruments used by the partners to this study, and the target publics or partnerships considered.

The plans under review do not take into consideration all **levels of action** (the stage of use/ re-use in particular could be further explored).

It seems important to be able to **act on supply and demand simultaneously**.

Sales outlets, where supply meets demand, offer possibilities for actions based on stocking/availability of products and on assistance identifying products that are the most environmentally friendly or that generate the least waste.

Prevention at the source necessarily concerns product policies (eco-design and eco-labelling). These policies are generally decided at European and national levels. Dialog among local and regional authorities and industry and distributors can be favoured also at these levels (e.g. inter-regional cooperation in Belgium).

It appears relevant to note here that while **waste collection and treatment system** in itself is not an active participant in prevention, it can contribute to the comprehensibility of the message and to the collection of information making it possible to take effective actions and to provide follow-up.

The plans under review also fail to take into consideration **all target publics**, the most important being: households, schools, offices and public administrations. It seems that for certain specific waste streams, more restricted target publics could be identified, for example, mothers for re-usable nappies, doctors or pharmacies for the promotion of the consumption of tap water etc.

## 6.2. Conclusions from the study

This ACR+ study highlights "regional" territories (in the sense of intermediaries between the national and local levels), where prevention policies are being implemented with some results. These can be regions (Autonomous Community of Catalonia, Autonomous Community of Andalusia, Brussels-Capital Region, Walloon Region), large urban areas (Paris, Dublin), provincial structures (Hampshire Country) or inter-municipal structures (Oporto).

The exercise brings the following points of conclusion :

- Prevention must have an increasingly important place in waste management plans, as in more strategic or political documents, whether drawn up at local, regional or national level.
- A prevention policy can only be effectively implemented where there is complementarity between different levels of power; it is therefore important for prevention plans to present a clear view of the role expected of the upper and lower tiers of authority.
- The development of effective prevention tools requires thorough understanding of waste streams generated at local level and of their qualitative, quantitative and symbolic importance.
- In general, the same types of waste streams and actions are targeted in the different regions under review. They have simply reached different stages of advancement. So there is indeed room for harmonisation at European level.

## 6.3. To go further : ACR+ proposal for an Annex IV bis to the proposal for a new Waste Framework Directive

The new proposal of a Waste Framework Directive of the European Parliament and of the Council on waste (COM(2005) 667 final) presented by the European Commission on 21st December 2005, includes specific provisions on waste prevention (articles 29 to 31), requiring notably Member States to establish waste prevention programmes<sup>26</sup>.

ACR+ supports the concept of prevention programmes to be drawn up at the geographical level most appropriate for their effective application. But ACR+ also believes that a prevention policy can only be effectively implemented where there is a complementarity between all the different power levels, including the European level.

**=> That is why ACR+ encourages the creation of a European programme promoting strongly dematerialisation and eco-consumption.**

ACR+ also supports the proposal of measures of Annex IV, addressing the different stages of the "resource – product – waste" lifecycle, but believes nonetheless that their implementation is more suited to national levels.

If measures are to be taken at the local and/or regional level, these shall be backed up by the European and national governments especially as regards the development and the funding of tools which can be easily and efficiently implemented at the local level.

**=> This is the reason why ACR+ proposes in the form of an Annex IV bis the following range of measures that could also support Local or Regional Authorities which will be asked to develop waste prevention programmes.**

<sup>26</sup> See here above pp. 12 - 13

## ACR+ PROPOSAL OF ANNEX IV BIS

### MEASURES WHICH CAN BE ENVISAGED BY LOCAL AND REGIONAL AUTHORITIES IN THEIR WASTE MANAGEMENT PLANS AND/OR WASTE PREVENTION PROGRAMMES

#### 1. Examples of measures addressing waste prevention in general, dematerialisation, eco-design, eco-consumption or reuse.

1. Target settings for the reduction of household waste arisings  
(for instance a target of maximum 300kg/inhab./year for waste arising directly from households)

2. Organisational or regulatory measures

- creation of a specific department on dematerialisation/ eco-consumption/ waste prevention
- creation of a public observatory of consumption patterns
- creation of advisory services and eco-counselling
- adaptation of waste prevention criteria in public procurement tenders

3. Economical measures

- development of differentiated taxation systems ("Pay as you throw")
- funding of R&D programmes
- funding of pilots
- funding of networks of actors and/or of stakeholders (especially NGOs or social economy enterprises) active in the development of waste prevention initiatives
- rewards to actors performing well in the field of prevention

4. Voluntary and educational measures

- to promote Eco-design

- voluntary agreements with businesses and with the industry sector
- publication of guides
- diffusion of best practices towards industry sectors
- benchmarking
- competitions or shows

- to promote Eco-consumption

- Voluntary agreements with public, private and/or civil actors
- Development of educational programmes and training
- Communication campaigns on :
  - the promotion of services and immaterialised products
  - the purchase of eco-friendly products (eco-labelled, recycled, reusable...)
  - the proper use of products
  - repair possibilities
  - ...
- Dissemination of best practices towards public and private consumers
- Creation of demonstration sites or of exhibitions
- Setting up of forums, working groups gathering actors from the waste management chain

II. Other examples of measures for specific waste - and products flows :

Food and garden waste :	promotion and support of home composting, funding of pilots targeting food wastages...
Unaddressed mails :	voluntary agreements with the sector, dissuasive stickers, taxes,...
Over packaging :	Bans of non reusable shopping bags or promotion of reusable shopping bags, promotion of reusable packaging...
Paper/ card :	dematerialisation in schools and offices, dematerialisation of phone directories...
Textiles, EEE, bulky waste :	support to second-hand shops and social economy enterprises...
Products with a short lifespan :	information on alternative products, ...
Nappies :	encouragement of reusable nappies services
Small household hazardous waste :	promotion of environmental friendly products, ....

ACR+ also intends to closely follow the process of elaboration of a new Waste Framework directive, and of the Better Regulation process at the European level.

It has organised this way last 19 and 20 June 2006 a conference on these themes in Brussels, and subsequently developed a dedicated website with its partners :

<http://www.betterregwaste.org>

For any further information :

<http://www.acrplus.org>

## 7. Appendix I - Articles of the Waste Framework Directive<sup>27</sup> pertaining to prevention and waste management planning

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### Article 3

1. Member States shall take appropriate measures to encourage:

(a) firstly, the prevention or reduction of waste production and its harmfulness, in particular by:

- the development of clean technologies more sparing in their use of natural resources,
- the technical development and marketing of products designed so as to make no contribution or to make the smallest possible contribution, by the nature of their manufacture, use or final disposal, to increasing the amount or harmfulness of waste and pollution hazards,
- the development of appropriate techniques for the final disposal of dangerous substances contained in waste destined for recovery;

(b) secondly:

- (i) the recovery of waste by means of recycling, re-use or reclamation or any other process with a view to extracting secondary raw materials, or
- (ii) the use of waste as a source of energy.

2. Except where Council Directive 83/189/EEC of 28 March 1983 laying down a procedure for the provision of information in the field of technical standards and regulations (1) applies, Member States shall inform the Commission of any measures they intend to take to achieve the aims set out in paragraph 1. The Commission shall inform the other Member States and the committee referred to in Article 18 of such measures.

### Article 4

Member States shall take the necessary measures to ensure that waste recovered or disposed of without endangering human health and without using processes or methods which could harm the environment, and in particular:

- without risk to water, air, soil and plants and animals,
- without causing a nuisance through noise or odours,
- without adversely affecting the countryside or places of special interest.

Member States shall also take the necessary measures to prohibit the abandonment, dumping or uncontrolled disposal of waste.

### Article 6

Member States shall establish or designate the competent authority or authorities to be responsible for the implementation of this Directive.

### Article 7

1. In order to attain the objectives referred to in Articles 3, 4 and 5, the competent authority or authorities referred to in Article 6 shall be required to draw up as soon as possible one or more waste management plans.

Such plans shall relate in particular to:

- the type, quantity and origin of waste to be recovered or disposed of,
- general technical requirements,
- any special arrangements for particular wastes,
- suitable disposal sites or installations.

Such plans may, for example, cover:

- the natural or legal persons empowered to carry out the management of waste,
- the estimated costs of the recovery and disposal operations,
- appropriate measures to encourage rationalization of the collection, sorting and treatment of waste.

2. Member States shall collaborate as appropriate with the other Member States concerned and the Commission to draw up such plans.

They shall notify the Commission thereof.

3. Member States may take the measures necessary to prevent movements of waste which are not in accordance with their waste management plans. They shall inform the Commission and the Member States of any such measures.

### Article 16

1. Every three years, and for the first time on 1 April 1995, Member States shall send the Commission a report on the measures taken to implement this Directive. This report shall be based on a questionnaire, drawn up in accordance with the procedure referred to in Article 18, which the Commission shall send to the Member States six months before the above date.

2. On the basis of the reports referred to in paragraph 1, the Commission shall publish a consolidated report every three years, and for the first time on 1 April 1996.

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<sup>27</sup> COUNCIL DIRECTIVE of 15 July 1975 on waste (75/442/EEC) amended by Directive 91/156/EEC

## 8. Appendix II - Articles of the proposal for a new Waste Framework Directive<sup>28</sup> pertaining to prevention and waste management planning

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### CHAPTER IV WASTE MANAGEMENT

#### **SECTION I PLANS**

##### *Article 26 Waste management plans*

1. Member States shall ensure that their competent authorities establish, in accordance with Article 1, one or more waste management plans, which shall be revised at least every five years.  
Those plans shall, alone or in combination, cover the entire geographical territory of the Member State concerned.
2. The waste management plans provided for in paragraph 1 shall set out an analysis of the current waste management situation in the geographical entity concerned, as well as the measures to be taken for the prevention, re-use, recycling, recovery and safe disposal of waste.
3. The waste management plans shall contain at least the following:
  - (a) the type, quantity and origin of waste generated as well as waste likely to be treated from outside the national territory;
  - (b) general technical requirements, including collection schemes and treatment methods;
  - (c) any special arrangements for waste streams that pose specific policy, technical or waste management problems;
  - (d) an identification and assessment of existing disposal and major recovery installations as well as historical contaminated waste disposal sites and measures for their rehabilitation;
  - (e) sufficient information, in the form of criteria for site identification, to enable the competent authorities to decide whether to grant authorisation or not for future disposal or major recovery installations;
  - (f) the natural or legal persons empowered to carry out the management of waste;
  - (g) financial and organisational aspects related to the management of waste;
  - (h) an assessment of the usefulness and suitability of particular economic instruments in tackling various waste problems, taking into account the need to maintain the smooth functioning of the internal market.
4. Waste management plans shall be in accordance with the waste planning requirements laid down in Article 14 of Directive 94/62/EC and the strategy for the reduction of biodegradable waste going to landfills, referred to in Article 5 of Directive 1999/31/EC, including significant awareness raising campaigns and the use of economic instruments.
5. The Member States shall notify the Commission of all waste management plans adopted, or of any revisions to their waste management plans. At the same time, they shall provide the Commission with a general assessment of how the plans will contribute to the aims of this Directive. That assessment shall include the strategic environmental assessment of waste management plans provided for in Directive 2001/42/EC.

##### *Article 27 Cooperation between Member States*

Member States shall cooperate as appropriate with the other Member States concerned to draw up the waste management plans in accordance with Article 26.  
They shall ensure public participation in accordance with Directive 2003/35/EC and notably through placing the plans on a publicly available website.

##### *Article 28 Implementing measures*

The Commission shall, in accordance with the procedure referred to in Article 36(2), adopt the format for notification under Article 26(5).

#### **SECTION 2 WASTE PREVENTION PROGRAMMES**

##### *Article 29 Establishment*

1. Member States shall establish, in accordance with Article 1, waste prevention programmes no later than *[three years after the entry into force of this Directive]*. Such programmes shall either be integrated into the waste management plans provided for in Article 26, or shall function as separate programmes. They shall be drawn up at the geographical level most appropriate for their effective application.
2. Member States shall ensure that stakeholders and the general public have the opportunity to participate in the elaboration of the programmes, and have access to them once elaborated, in accordance with Directive 2003/35/EC.

##### *Article 30 Content*

1. In their programmes, Member States shall set waste prevention objectives and shall assess opportunities of taking measures as set out in Annex IV.  
Such objectives and measures shall be designed to break the link between economic growth and the environmental impacts associated with the generation of waste.

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<sup>28</sup> Communication from the Commission to the Council, the European Parliament, the European Economic and Social Committee and the Committee of the Regions of 21<sup>st</sup> December 2005, COM (2005) 667 final

2. Member States shall determine specific qualitative and quantitative targets and indicators for any measure or combination of measures adopted in order to monitor and assess the progress of individual measures.

*Article 31 Review*

Member States shall regularly evaluate the waste prevention programmes, and as a minimum before submitting their reports in accordance with Article 34(1).

## **ANNEX IV WASTE PREVENTION MEASURES**

*Measures that can affect the framework conditions related to the generation of waste*

2. The use of planning measures, or other economic instruments affecting the availability and price of primary resources.
3. The promotion of research and development into the area of achieving cleaner and less wasteful products and technologies and the dissemination and use of the results of such research and development.
4. The development of effective and meaningful indicators of the environmental pressures associated with the generation of waste at all levels, from product comparisons through action by local authorities to national measures.

*Measures that can affect the design and production phase*

5. The promotion of eco-design (the systematic integration of environmental aspects into product design with the aim to improve the environmental performance of the product throughout its whole life cycle).
6. The provision of information on waste prevention techniques with a view to facilitating the implementation of Best Available Techniques by industry.
7. Organise training of competent authorities as regards the insertion of waste prevention requirements in permits under this Directive and Directive 96/61/EC.
8. The inclusion of measures to prevent waste production at installations not falling under Directive 96/61/EC. Where appropriate, such measures could include waste prevention assessments or plans.
9. The use of awareness campaigns or the provision of financial, decision making or other support to businesses. Such measures are likely to be particularly effective where they are aimed at, and adapted to, small and medium sized enterprises and work through established business networks.
10. The use of voluntary agreements, consumer/producer panels or sectoral negotiations in order that the relevant businesses or industrial sectors set their own waste prevention plans or objectives or correct wasteful products or packaging.
11. The promotion of credible environmental management systems, including ISO 14001.

*Measures that can affect the consumption and use phase*

12. Economic instruments such as incentives for clean purchases or the institution of an obligatory payment by consumers for a given article or element of packaging that would otherwise be provided free of charge.
13. The use of awareness campaigns and information provision directed at the general public or a specific set of consumers.
14. The promotion of credible eco-labels.
15. Agreements with industry, such as the use of product panels such as those being carried out within the framework of Integrated Product Policies or with retailers on the availability of waste prevention information and products with a lower environmental impact.
16. In the context of public and corporate procurement, the integration of environmental and waste prevention criteria into calls for tenders and contracts, in line with the Handbook on environmental public procurement published by the Commission on 29 October 2004.
17. The promotion of the reuse and/or repair of appropriate discarded products, notably through the establishment or support of repair/reuse networks.