



Chambre régionale des comptes  
de Languedoc-Roussillon

# Evaluation of the management of household waste

## Audit guide and key indicators

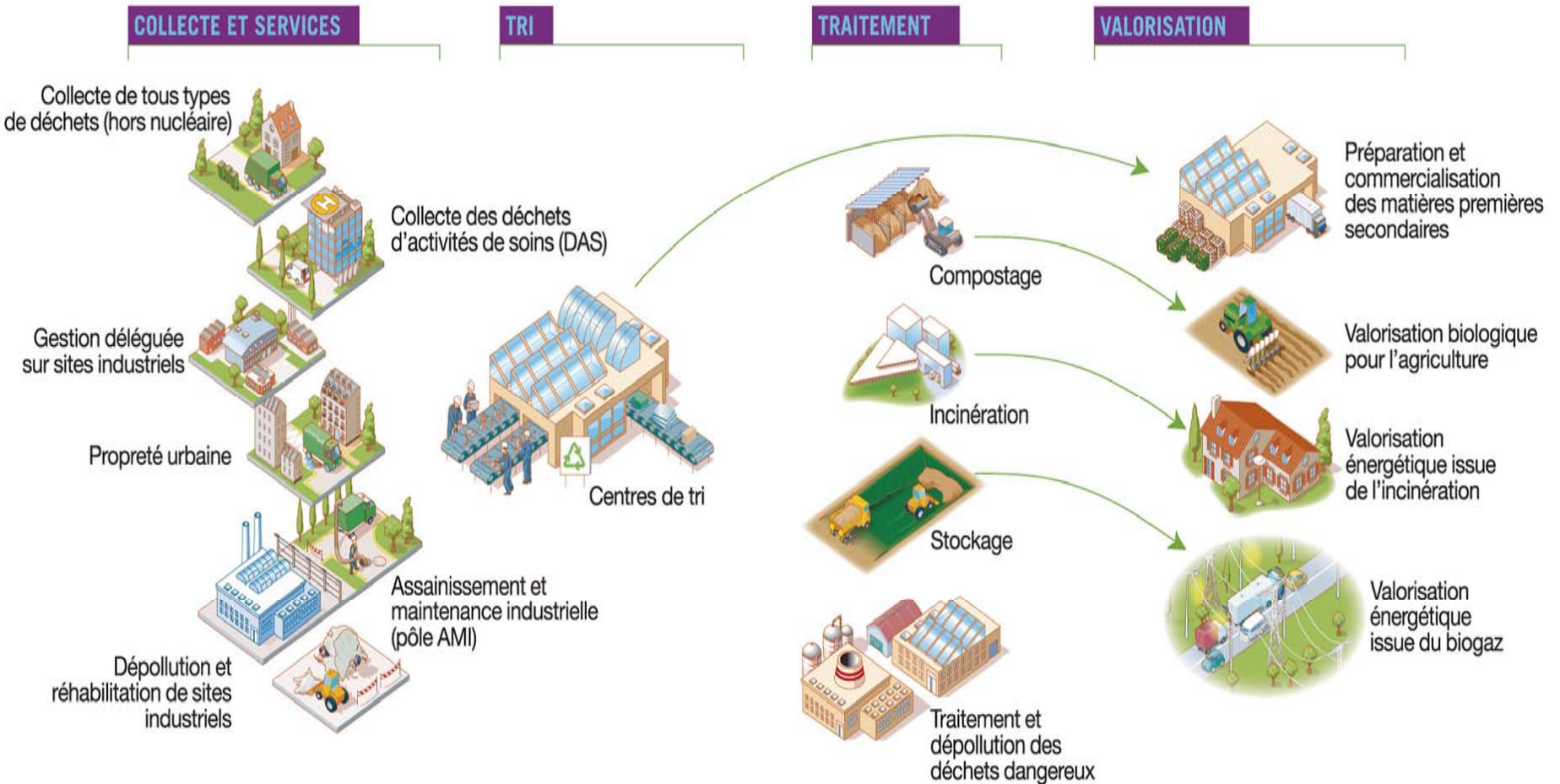
Nicolas BRUNNER (France)

***"Courtesy translation provided by the organisation"***

# → A number of reminders



## → Activities associated with managing household waste (€11,600 million in 2006 in France)



### **Slide 3 presentation**

COLLECTION AND SERVICES

SELECTION

TREATMENT

UTILISATION

Collection of all types of waste (except nuclear)

Delegated management on industrial sites

Urban property

Decontamination and rehabilitation of industrial sites

Collection of medical waste

Sanitation and industrial maintenance (centre of excellence)

Sorting centres

Composting

Incineration

Stockpiling

Treatment and decontamination of hazardous waste

Preparation and sale of primary and secondary raw materials

Organic matter for agriculture

Energy produced by incineration

Energy supplied by biogas

## → Definition of household and similar waste

MUNICIPAL WASTE managed by local authorities <i>(594 kg/inhabitant)</i>			
LOCAL AUTHORITY WASTE  Waste from public green spaces, refuse collection and sanitation (purification sludge – <i>art. L.2224-8 of the Local Authority Code</i> )	HOUSEHOLD AND SIMILAR WASTE		
	WASTE GENERATED BY SMALL COMPANIES (craftsmen and women, public services, small retailers) - Mixed waste (ordinary rubbish bins) - Selectively collected waste (packaging, bulky waste, plant matter, rubble, special waste) - Taken by companies to waste reception centre	HOUSEHOLD WASTE in the strict sense <i>[ 391 kg/inhabitant]</i>	
		- Mixed waste (ordinary rubbish bins)  - Selectively collected waste:  dry recyclable waste (packaging),  biodegradable waste  - Taken by households to waste reception centre	- Occasional waste:  bulky waste,  plant matter,  rubble,  special household waste

## → Collection (France 2007)

Household waste	MT (Millions of tonnes)	kg/inhabitant
Residual household refuse (RHR)	20.1	316
Glass	1.8	29
Dry materials	2.9	46
Plant and organic waste	1.1	18
Bulky items	1.0	15
Waste reception centres	10.8	170
<b>TOTAL</b>	<b>37 MT/yr</b>	<b>594 kg/yr/inhab.</b>

Household refuse (HR)

391 kg/inhab./yr



## Collection of residual household refuse in Europe

	Southern Europe Spain, Italy	Northern Europe (Germany, Austria, Belgium, Holland)	FRANCE
Collection method	Mainly S/RB	D-to-D  Mixed	D-to-D
Frequency	C1 if D-to-D	< C1	> C3 (C2 to C7)
Staff	1	1.5 (1 to 3)	3

Collection methods : D-to-D = Door-to-door / S / RB = Taken to waste disposal skips or recycling banks

Collection frequency : C1 = one collection a week

Staff : 1 driver + n dustmen/women

# Current survey (2008-2010)

## ■ Objectives:

To evaluate the local management of household waste by examining in particular the extent to which the environmental goals set by the EU and at a national level are taken into account.

## ■ Organisation:

- A steering committee of eight members
- Joint discussion forum of eight members.

## ■ Implementation:

- 19 accounting regulatory committees
- 110 audited bodies: 91 inter-municipal co-operation establishments, 7 departments, 7 municipalities, 1 agency, 2 mixed-economy companies.

## ■ Timetable:

- 2008: preparation / 2009: audits / 2010: summary of findings.



# Methodology of the survey

## ■ Guidance note

- It defines the preliminary questioning in five points.

## ■ 7 audit sheets

- These are reminders of the stakes and determine the essential points to be audited in the bodies concerned.

## ■ An indicative standard report

- This covers the main points to be covered when auditing each body in order to facilitate the national summary of conclusions.

## ■ 15 indicators to be completed

- The fact that these are standardised will allow a national benchmark to be established.

# Survey guidance note

■ This note defines five key issues:

## 1. Verify respect for EU and national priorities:

- Prevention, reduction in the amount and the harmfulness of waste produced
- Exploiting waste (recycling, re-use, energy)
- Information for the public on the impact on the environment and health.

## 2. Evaluate the content of departmental plans on waste disposal.

# Guidance note (continued)

3. Examine cost and financial control; optimisation of the perimeters and of the organisation.
4. Verify degree to which local resources are in keeping with targets set (prevention, reduction, public information).
5. Study the monitoring of results achieved by local authorities.

# 7 audit aid sheets

- Sheet 1: legal and regulatory powers and responsibilities
- Sheet 2: evaluation of local policies on household waste
- Sheet 3: organisation of collection and treatment
- Sheet 4: choice of equipment
- Sheet 5: management and use of facilities
- Sheet 6: financing by the user or taxpayer
- Sheet 7: cost of the service

# Standard audit report

1. Organisation of the service
2. Exercise of powers, discharge of duties
  1. Collection
  2. Treatment
3. The cost and financing of the service
  1. Operational costs
  2. Operational revenue
  3. Budget balancing and financial situation
4. Quality of the service
  1. Efficiency (collection and treatment)
  2. Effectiveness (collection and treatment)
5. Assessment and outlook

# 15 key indicators

## 1. Baseline indicator

Tonnes of household and similar waste collected per inhabitant per year (kg/inhabitant/year)



*(In France in 2007:  
594 kg/year/inhabitant)*

# 3 cost indicators

- 2- Total net cost (inc. taxes) of all the treatment services per tonne collected  
(€/tonne)
- 3- Total cost (inc. taxes) of collection per tonne collected (with or without the cost of operating waste reception centres)  
(€/tonne)
- 4- a) Overall cost (inc. taxes) of the total household and similar waste service per tonne collected  
(€/habitant)  
b) Overall cost (inc. taxes) of the service per inhabitant  
(€/tonne)



# 4 revenue indicators and financial balancing

5- Residents' involvement: annual ratio-produced tax or charge/population (€/inhabitant)

*In France in 2006 : household waste removal tax of €87.40/year, household waste removal charge of €75/year*

6. Percentage of tax or fees in total operating revenue (%)

7- Percentage of revenue from special fees (art. L.2333-77 and 78 of the Local Authority Code) in operating revenue (%)

8. Extent to which operating revenue covers operating expenditure (%)



# 3 efficiency indicators

9 -a) Collection: number of tonnes collected in comparison with number of collection agents (FTE: full-time equivalent)

(tonne/FTE)

9 -b) Collection: number of kilometres covered in comparison with the number of collection agents (FTE)

(km per FTE)

10-Treatment: overall final cost (inc. taxes) for treating a tonne of residual household refuse

(euros/tonne)

(specifying the method for treating residual household refuse:

I = Incineration; M = methanisation ; L = landfill; C = composting)

# 5 effectiveness indicators

<p>11- Selective collection (not including recyclable material taken by public to waste reception centres) as a percentage of baseline indicator</p>	<p>(%)</p>
<p>12- Performance of collection of household and similar waste by material and by inhabitant</p> <p>a) residual household refuse <i>316 kg/inhab./year (France 2007)</i></p> <p>b) glass (not. inc. WRCs ) <i>29 kg/inhab./year</i></p> <p>c) dry material (paper, cardboard, household packaging not inc. WRCs) <i>46 kg/inhab./year</i></p> <p>d) plant matter (not inc. WRCs) <i>18 kg/inhab./year</i></p> <p>e) bulky items (not inc. WRCs) <i>15 kg/inhab./year</i></p>	<p>(kg/inhab./year)</p>

# Effectiveness indicators (continued)

13- Overall rate of selected refuse	(%)
14 -a) Waste reception centres: volume of annual production by WRCs per inhabitant <i>170 kg/inhab/year (France 2007)</i>	(kg per inhabitant)
-b) WRCs : number of visits to WRCs per year per inhabitant <i>1.5 visits per year per inhabitant served</i>	(number per year per inhabitant)
15- Final percentage of household or similar waste utilised or recycled <i>(29% and 33.5%, in other words 62.5% in total)</i>	(%)

# Early findings



# The effects of environmental awareness

- A reduction in the volume of waste collected (selection, but recession also a factor); incinerators not operating at full capacity or at reduced tariffs (competition) or rising tariffs (operators).
- Two aversions: rubbish tips and incinerators. The NIMBY phenomenon affects every proposed incinerator, but also landfill sites and even waste reception centres.
- Hence the search for new ways of utilising waste (composting, etc.).
- Another logical consequence: rising costs.
- However, the rise in inter-municipal action has made improvements achievable by numerous municipalities at the level of both collection and treatment.
- Difficulty in France of the choice between charges (principle of the polluter pays) and tax (fiscal redistribution).
- Departmental planning staff have not adapted.

# Risks identified

- Risks concerning services: anomalies in tonnages billed; acceptance of waste from third parties, and environmental risks associated with disposal conditions.
- Risks concerning the legal framework: compliance with competition rules (perverse effects of the necessary synergy between construction and operation of a facility), and absence of oversight.
- Technical and financial risks: an innovative facility is not operating; a building permit has not been sought; a client municipality finds another service provider; a strike takes place, etc.

# Thank you for your attention

