

SPPI on waste collection, waste treatment and disposal in France

26th Voorburg Group
Newport, Wales

Denis Gac



Sept 22nd 2011

SPPI on waste collection, waste treatment and disposal in France



Definition of the sector

E Section- WATER SUPPLY; SEWERAGE, WASTE MANAGEMENT AND REMEDIATION SERVICES

- 36 Natural water; water treatment and supply services
- 37 Sewerage services: sewage sludge
- 38 Waste collection, treatment and disposal services; materials recovery services
 - ⇒ 38.1 Waste; waste collection services
 - ⇒ 38.2 Waste treatment and disposal services
 - ⇒ 38.3 Materials recovery services; secondary raw materials
- 39 Remediation services and other waste management services

Size of the industry (France)

38.1: waste collection

salaries	turnover		nb salaries		nb companies	
0-9	327	7%	1390	3%	536	72%
10-19	160	4%	971	2%	65	9%
20-249	1063	24%	9245	23%	111	15%
250 et+	2959	66%	28893	71%	35	5%
total	4508	100%	40500	100%	747	100%
<i>source :ESANE 2009</i>						

38.2: waste treatment

salaries	turnover		nb salaries		nb companies	
0-9	439	7%	1050	4%	437	66%
10-19	288	5%	1185	4%	67	10%
20-249	2628	42%	9843	34%	138	21%
250 et+	2962	47%	16584	58%	21	3%
total	6318	100%	28663	100%	664	100%
<i>source :ESANE 2009</i>						

definitions

A waste is « *any residue of a production process, processing operation, or utilization process; any substance, material, product, or, more generally, any movable good that has been discarded or that its possessor intends to discard* »

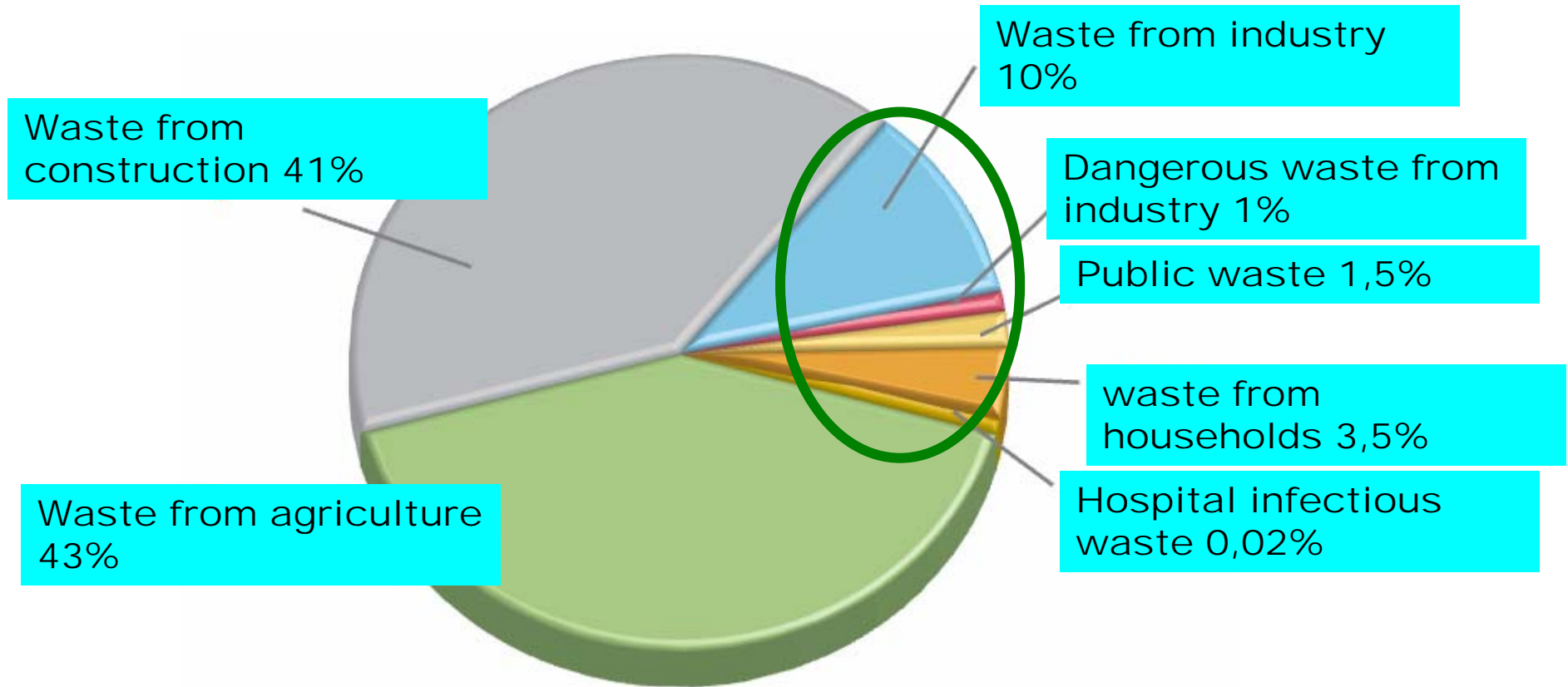
France :framework law 15 july 1975

« *any substance or object [...] which the holder discards or intends or is required to discard* »

EU: Directive 2006/12/CE



France : 868 millions tons of waste in 2009*



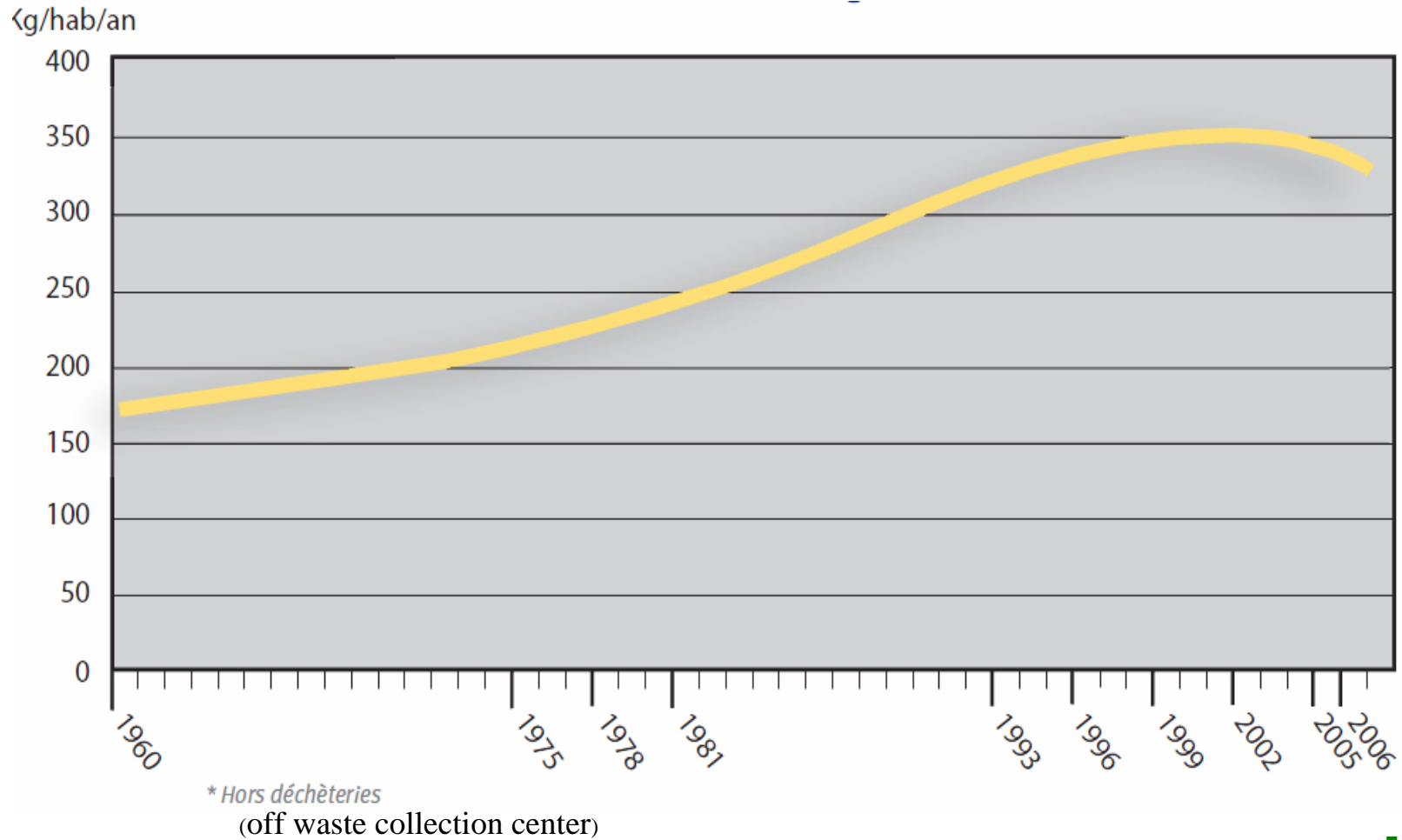
EU: 3 billions tons of waste every year

We all produce waste: on average, each of the 500 million people living in the EU throws away 0.5 tonne of household rubbish every year

European society creates more and more rubbish

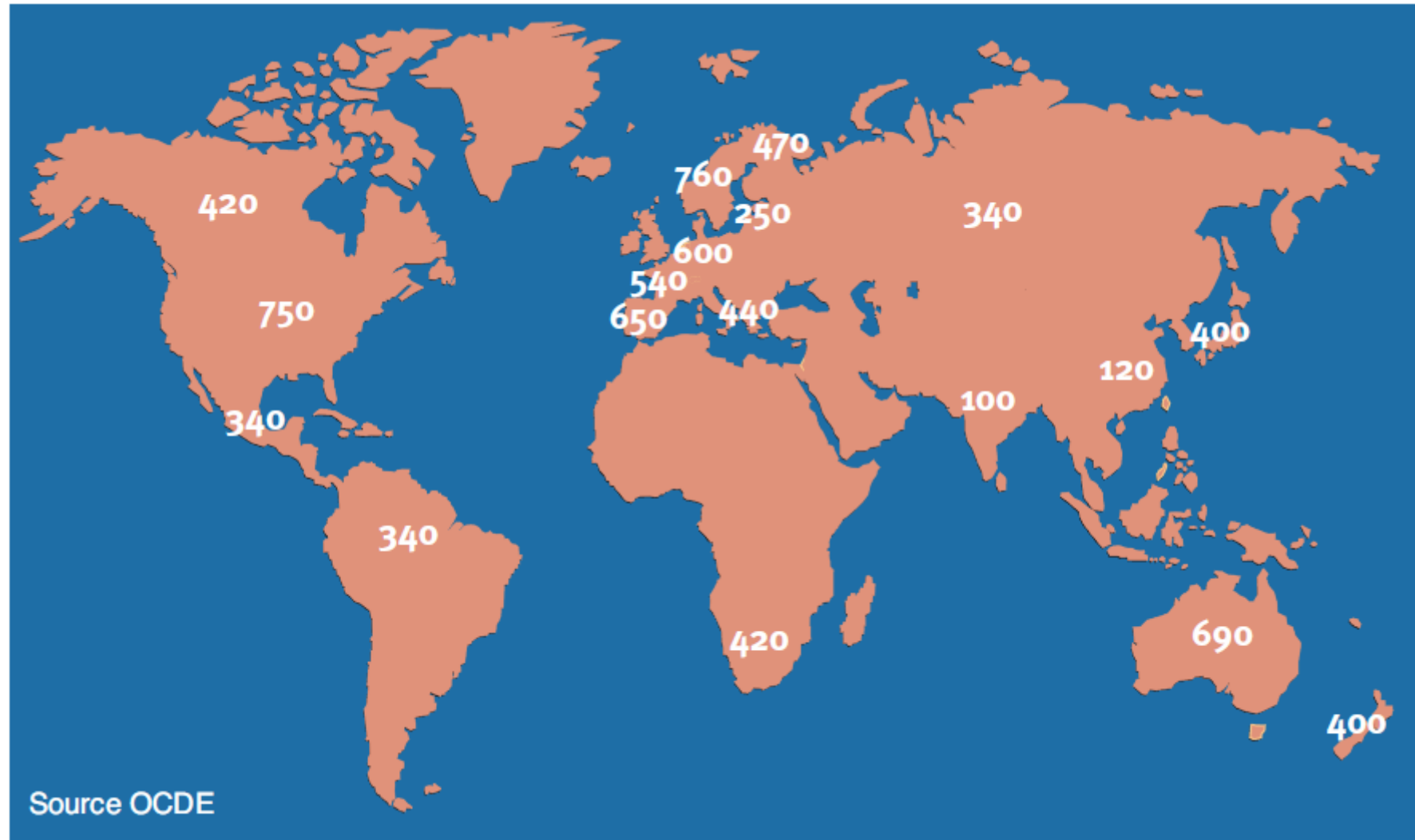
- More single-person households =>more waste/person
- Products have shorter lifespan
- Many more single-use and disposal products
- People own and use many more personal devices and update them more often

Household waste: 354 kg / inhabitant in France *



Household waste (kg /inhabitant/year)

(2005)



Source OCDE

Market characteristics

The market is regulated by the administration

■ Loi n°75-633 du July/ 15/ 1975 : framework law on waste

⇒ Principle "**polluter pays**" : the cost of disposing of waste must be borne by the holder of the waste, the previous holders or producers of the product that has generated the waste.

■ EU directive 2008/98/CE 19 novembre 2008

⇒ The European Union's approach to waste management is based on three principles:

⇒ **1 Waste prevention**

- Improving manufacturing methods
- Influencing consumers to demand greener products and less packaging

⇒ **2 Recycling and reuse**

- Definition of many specific « waste streams »
- Aim for some countries: recycle over 50% of packaging waste

⇒ **3 Improving final disposal and monitoring**

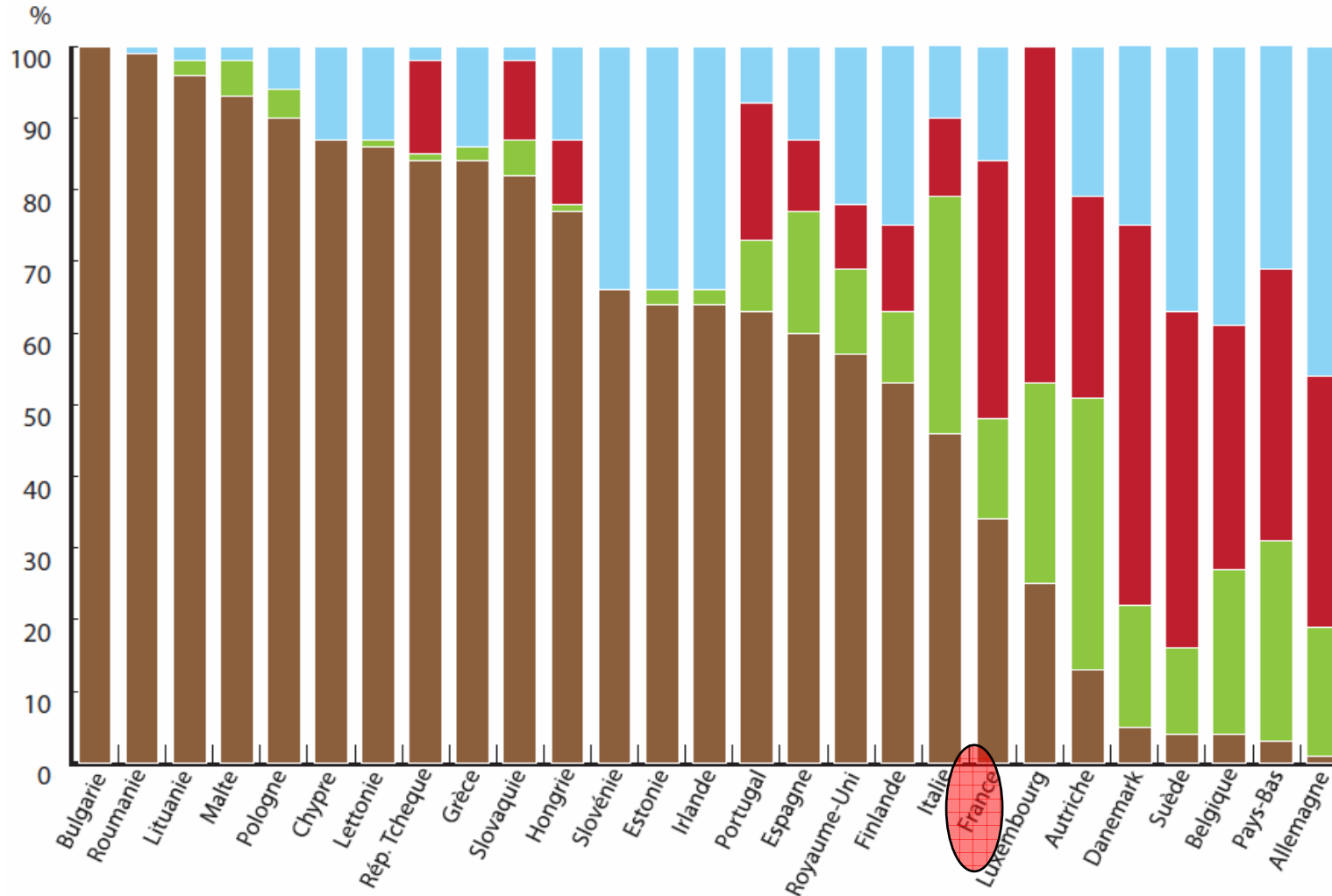
- waste that cannot be recycled or reused should be safely incinerated
- with landfill only used as a last resort

■ Directives implemented by each country

■ <http://ec.europa.eu/environment/waste/index.htm>
Newport, Wales

Municipal waste treatment in EU :

2007 Eurostat

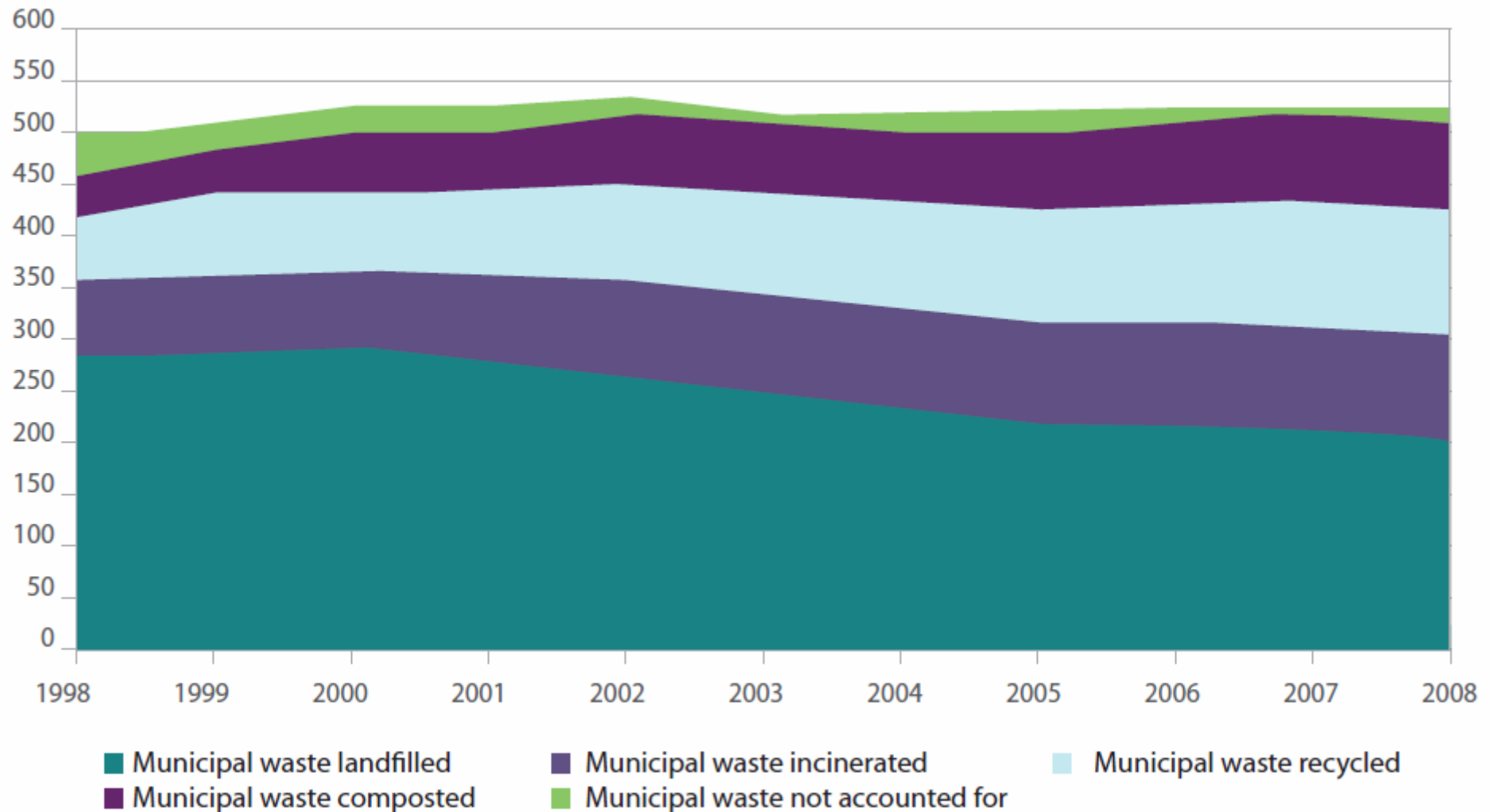


landfilled compost ed Incener ated Recycled

Municipal waste treatment in EU :

2007 Eurostat

Trends in municipal waste treatment in the EU



Source: Eurostat

Market characteristics

Managing our waste presents major challenges

- in term of **preservation of resources of raw materials** (paper, metal, glass, plastics, rubber...)
- as the impact on **environmental (co₂...)** and **health** management

Aims of policies (ex: France)

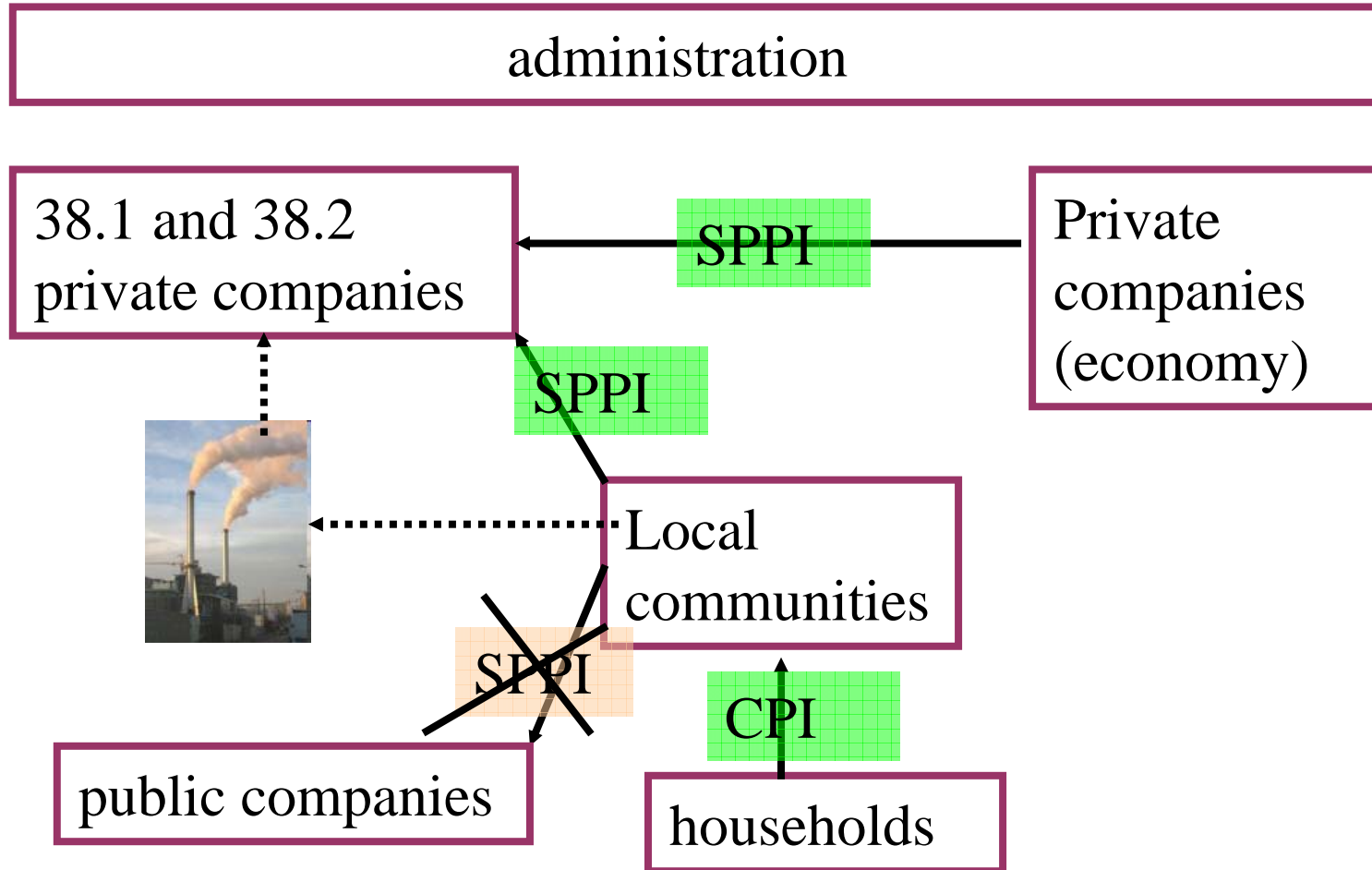
- reduce the production of households waste
- increase the recycling of waste
- reduce the amount of waste going on incineration or storage
- dispose of waste safely and in conditions that respect environment

Market characteristics

By regulating the activity of this sector on aspects of the protection of human health and maintaining a certain quality of the environment, the administration is a major agent that acts on:

- **the volume** (increase) of the collection service and waste treatment (eg by forcing economic agents to integrate new waste streams : tires, EEE...)
- (decrease) by encouraging households to make compost, or to reduce the use of packaging
- **the quality** of service (by imposing constraints on the methods of storage, disposal of certain waste)
- ...but has little or no impact on **prices** (except some taxes that impact the selling prices but not the base prices)

Market characteristics



Market characteristics

- The market is dominated by a few (2) big groups: Suez and Veolia,
 - ⇒ both 55% of the industry turnover
 - ⇒ both groups are polyvalent, active both in waste collection and in waste treatment, but also in water services and sewerage, through specialised affiliates, all over the country
- There is a big competition in waste collection activity
- But bigger profits in treatment (companies dixit) due to the lack of outlets

The questionnaire used by field-surveyors

CPA 2008	Prix hors TGAP	CA (ou %)
38	5 : Collecte des déchets non dangereux	
	51 Collecte des ménages et assimilés	
	511 Collecte traditionnelle	
	512 Collecte sélective	
	513 Gestion des déchetteries	
	52 Collecte des activités économiques	
	53 Gestion des installations de transfert	
	6 : Traitement et élimination des déchets non dangereux	
	61 Déchets des ménages et assimilés	
	611 Gestion des centres de tri d'OM et assimilés	
	612 Exploitation des centres de stockage classe 2	
	613 Incinération ordures ménagères	
	62 Déchets des activités économiques	
	621 Gestion des centres de tri	
	622 Exploitation des centres de stockage classe 2	
	623 Exploitation des centres de stockage de classe 3 (déchets inertes [déchets de la Construction])	
	7 : Collecte des déchets dangereux	
	71 Collecte de déchets Industriels dangereux	
	72 Gestion des centres de transit ou des installations de transit	
	73 Collecte des DASRI	
	8 : Traitement et élimination des déchets dangereux	
	81 Incinération spécialisée	
	82 Traitement physico-chimique	
	83 Gestion des centres de stockage de classe 1	
	84 Co-incinération en cimenteries	
	85 Traitement des DASRI (déchets d'activités de soins à risques infectieux)	
	86 Dépollution, réhabilitation des sites et sols pollués	
	9 : Récupération	
	91 Valorisation bio / méthanisation, compostage	
	92 Valorisation énergétique (Kwatt, eau chaude...)	
	93 Valorisation matière (ferraille, calcaire...)	
	10 : Nettoyement des rues	

Collect classification for the survey

38.11 non-hazardous waste collection

- Households waste collection
 - ⇒ Traditionnal, bulky waste
 - ⇒ Selective, sorted waste
 - ⇒ Waste collection center (volunteer contribution)
- waste collection from economic activities
- waste transfer facility management
- recyclable materials
 - ⇒ (paper, scrap iron, glass...)
- *(rem: street cleaning not here but 81.29)*

38.12 hazardous waste collection

- hazardous waste collection from industrial activity
- Transit center management
- Hospital, infectuous waste collection

Collect classification for the survey

38.21 non hazardous waste treatment

■ Household waste treatment

- ⇒ Households waste sort center management
- ⇒ Households waste storage center management / landfills #2
- ⇒ Households waste incinerators
 - Ashes and residues

■ Industrial non hazardous waste treatment

- ⇒ industrial (inert) waste storage center management / landfills #3

38.22 hazardous waste treatment

■ Specialised industrial incinerators

■ Hazardous industrial waste storage center management/ landfills #1

■ Co-incineration in cement factories

■ Hospital infectious waste treatment

■ Nuclear waste treatment and disposal (*storage*)

Sample design

cut off in the statistic register:

- 57 companies in the survey
- they give us quotations every quarter

- ⇒ 33 companies concerned by waste collection 1.9 bill €
- ⇒ 47 companies concerned by waste treatment 2.5 bill €

- *We have noted that most companies engaged in non-hazardous collection are also engaged in non-hazardous treatment. It is the same for hazardous waste.*

Main pricing method for waste collection

Waste collection:

■ Household waste

- ⇒ Unit price / kg must be handled with care !!
 - Price depends on many characteristics as
 - the area (urban, rural)
 - the rythm of collection (2 times a week, more...)
 - the type of container
 - the type of waste (bulky, selective)
- ⇒ Contract prices (between companies and communities) are a solution if all parameters are well defined and stable
- ⇒ Price per inhabitant is acceptable if parameters of collection reminds the same.
- ⇒ Price do not depend on the tonnage, even if it is often a variable in the contract revision criteria

Main pricing method for waste collection and treatment

Waste collection:

■ industrial waste

⇒ Unit price is a solution (price per ton, per container...)

Waste treatment

⇒ Unit price depending on the type of product (chemical, liquid/solid, explosive, level of dangerousness...)

- Prices per quantity or volume (for sorting, storage, disposal...)
- When entering into the process

Quantity/ quality issue

The management of waste becomes more and more regulated (ex: quality of ashes from incinerators chimneys).

Sorting and preparing waste for recycling have a cost (with an impact on the price...).

■ EU: waste streams

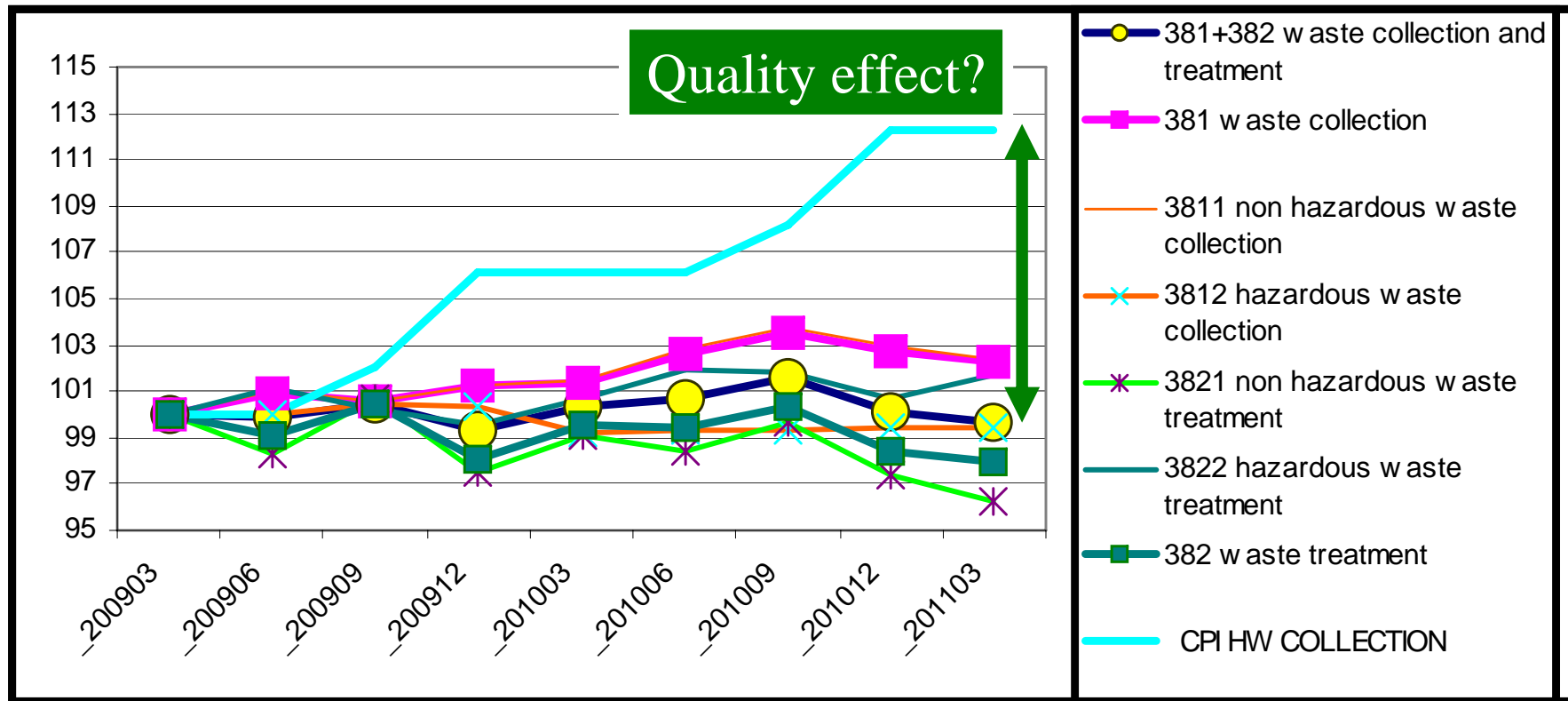
- ⇒ for electric and electronic equipments
- ⇒ for tires
- ⇒ for batteries
- ⇒ for end-of-life vehicles
- ⇒ for unsolicited printed papers (ad)
- ⇒ for packaging
- ⇒ for PCB, oil, mining ...

The quality (safety of process, environmental preservation) increases.

The waste management service quality depends on international standards and aims of politics

When households pay more and more for a decreasing quantity of waste produced, it is not always an increase of prices , but rather an increase of quality.

French SPPI + CPI



SPPI on waste collection, waste treatment and disposal in France

Thanks for your attention

Contact
M.Denis Gac
Tél. : (+ 33) 02 40 41 77 50
Courriel : denis.gac@insee.fr

Insee

18 bd Adolphe-Pinard
75675 Paris Cedex 14

www.insee.fr  

Informations statistiques :
www.insee.fr / Contacter l'Insee
09 72 72 4000
(coût d'un appel local)
du lundi au vendredi de 9h00 à 17h00

