

Adriatic Action Plan 2020

Environmental Management System

Notes for a sustainable management of municipal wastes.

Appunti per una gestione sostenibile dei rifiuti urbani

Baden, 13 – 15 maggio 2004

1. Introduction

UE priority in theme of municipal waste management is:

1° to reduce the total quantity of wastes;

2° to recover matter;

3° to recover energy;

4° to dump.

An useful method to evaluate the own practices is verify:

a) In what measure ...

b) ... and using which instruments ...

... you can realize the “UE priority”

2. Some aggregate dates

pag.1

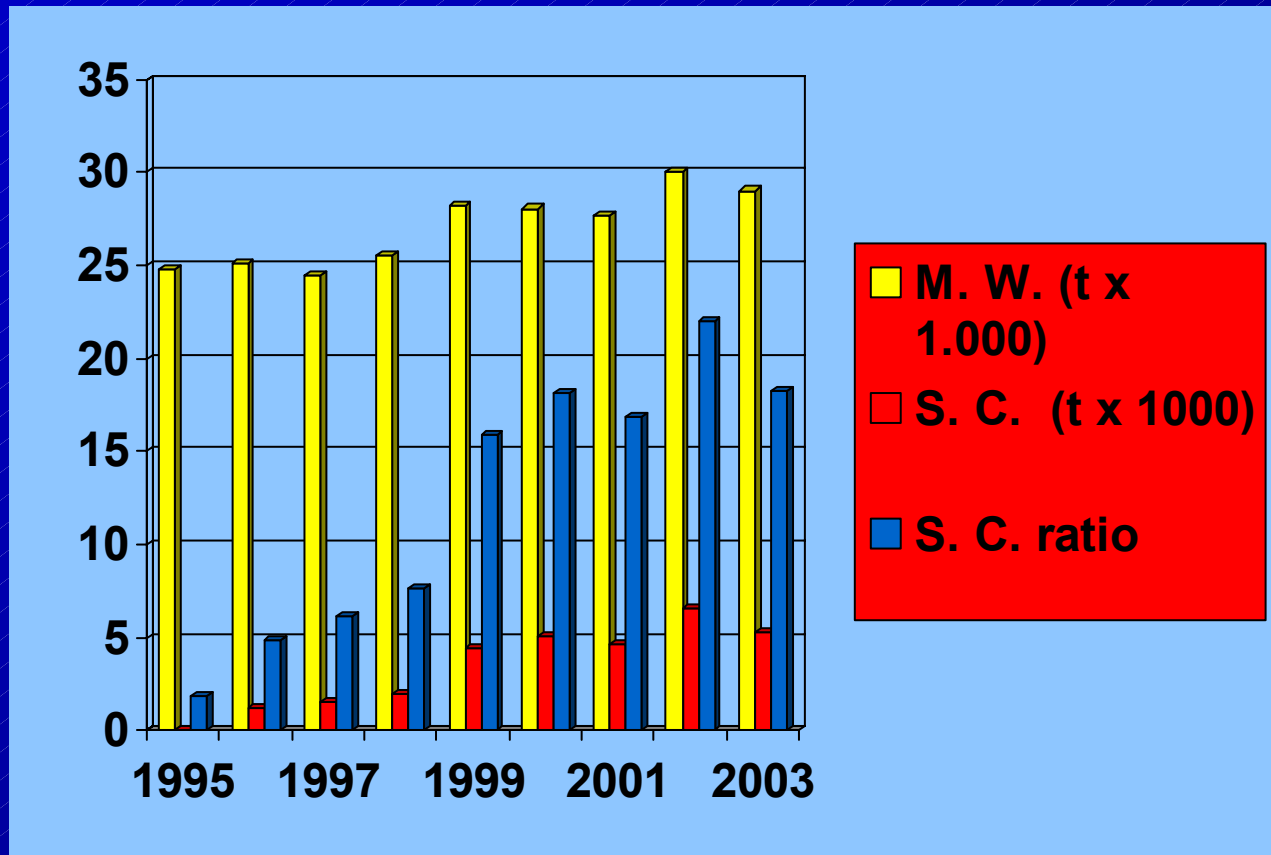
Syntesys of dates about waste production and management in Molfetta (t)

Years Filiere	1996	1997	1998	1999	2000	2001	2002	2003
MW	25.088	24.491	25.561	28.219	28.045	27.700	30.054	29.008
Paper	390	377	413	426	462	603	597	654
Thick paper	281	571	634	752	807	712	959	939
Glass	428	406	439	386	607	626	671	779
Plastic	105	133	133	148	156	187	261	357
Metals	9	17	57	119	347	383	380	258
Wood			235	1.387	833	739	1.681	381
Org. Wastes			48	1.269	1.857	1.352	1.960	1.831
Textil					13	63	86	81
Other							11	9
Totale SC	1.213	1.504	1.959	4.487	5.082	4.665	6.606	5289
% SC	4,83	6,14	7,66	15,90	18,12	16,84	21,98	18,23

2. Some aggregate dates

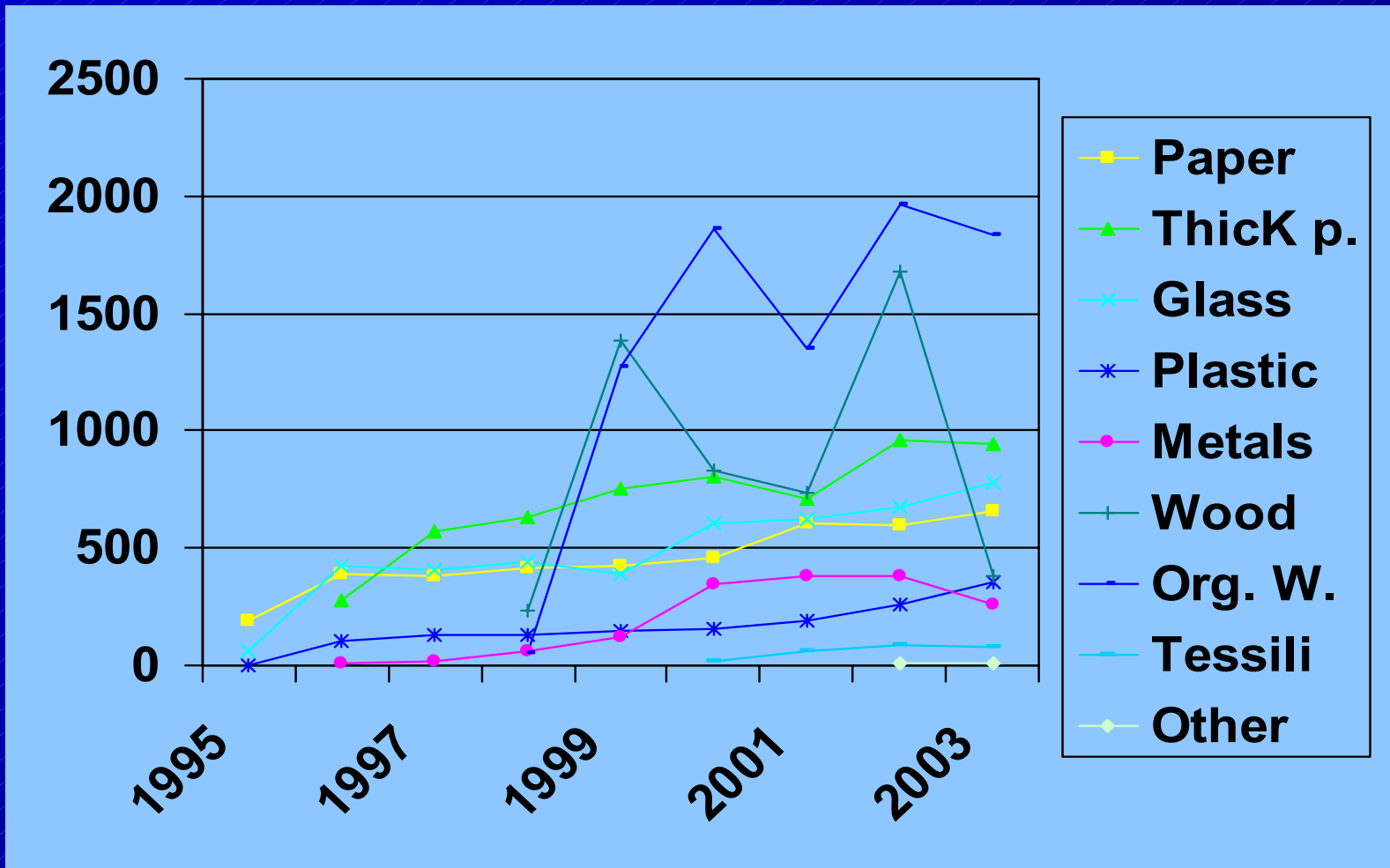
pag.2

Total quantity of wastes, quantity form separate collecting and percent ratio



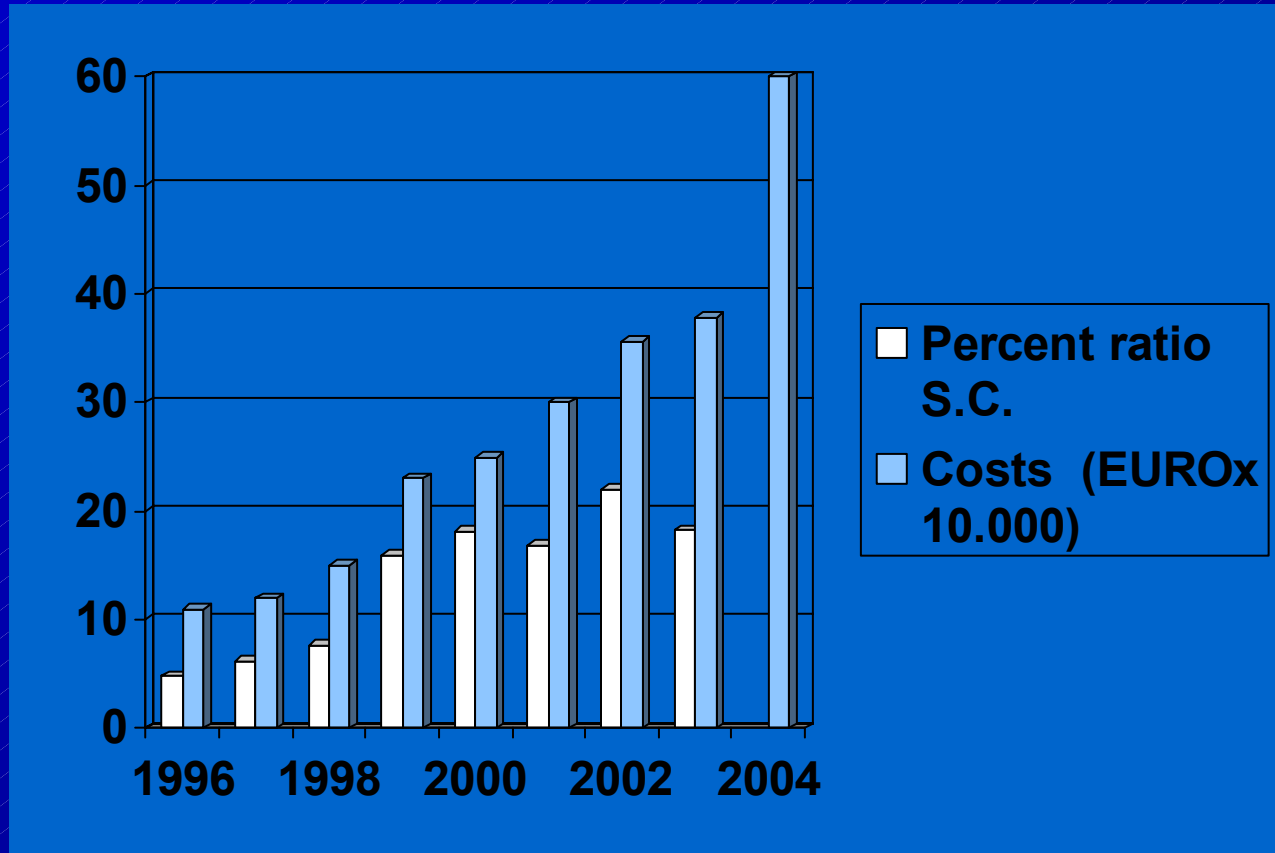
2. Some aggregate dates

Weight of different kinds of wastes prom separate collecting



2. Some aggregate dates

Cost of separate collecting versus percent ratio of separate collecting



3. Information / education activities

pag.1

- “Old” targets:
 - Kinder, primary and secondary schools;
- “New” targets:
 - Job associations;
- Utilized “channels”:
 - Teachers, external teachers, environment associations.

3. Information / education activities

pag.2

- Slogan to reduce wastes...:
 - Don't buy wastes
 - Don't "invent" wastes;
- ... **and to improve recycling:**
 - Resources we dump pollute us (Laura Conti);
 - Organic wastes become compost;
 - Recycling helps nature and economy.

3. Information / education activity

pag.3

- Budget for information activities:
- | Years | 2000 | 2001 | 2002 | 2003 | 2004 |
|-------|--------|--------|--------|--------|--------|
| Euro | 10.000 | 15.000 | 15.000 | 20.000 | 25.000 |

First of all: it is not enough

Perspectives: “feel” the activity as “business”;
“aggregate” several sectors.

4. Evolution of separate collecting

pag.1

Number of different kinds of wastes – Percent ratio MW “covered” by S. C. activity

Anni Filiere	1994 (tot 9%)	1995 (28%)	1996 (43 %)	1997 (43 %)	1998 (91 %)	1999 (92 %)	00-01 (94%)	02-03 (96 %)
Other								SI-2%
Tessili							SI-5%	SI-5%
Org. W.					SI-43%	SI-42%	SI-41%	SI-40%
Wood					SI-5%	SI-6%	SI-6%	SI-6%
Metals			SI-3%	SI-3%	SI-3%	SI-2%	SI-2%	SI-2%
Th. P.			SI-11%	SI-11%	SI-11%	SI-12%	SI-12%	SI-12%
Plastic		SI-9%	SI-9%	SI-10%	SI-10%	SI-11%	SI-11%	SI-11%
Paper		SI-10%	SI-11%	SI-11%	SI-12%	SI-12%	SI-12%	SI-12%
Glass	SI – 9%	SI – 9%	SI – 9%	SI – 8%	SI –7%	SI –7%	SI –6%	SI –6%

4. Evolutione of S. C.

pag.2

Different kinds of collecting for each kind of waste

Filiere	Kind of Service	Kind of Service	Kind of Service	Kind of Service	Kind of Service	Kind of Service
Paper	Street Collectnig	Public Offices	Profession Studies			
Th Paper	Street Collecting	Stores	Factories			
Glass	Street Collecting	Stores	Restaurant.			
Plastic (metals)	Street Collecting	Stores	Open stores			
Organic Waste	Street Collecting	Stores	Restaurant	Open stores	General Stores	Cimitery
Furniture	People call					

4. Evolution of S. C.

pag.3

- **Connected Activities**
 - Sheep Demolition;
 - Utilizing of not recyclable wood to energy recovery (sperimental);
 - Management of industrial plastic wastes;
 - Management of C & D wastes (recovery).

4. Evolution of S. C. pag.4

- **Sperimental activity: biologic treatment of wastes:**
 - **Composting of organic (wastes)**
(from s. c.);
 - **Biostabilizzazione**
of municipal wastes (not from s. c.).

5. Evoluzione of “contest”

pag.1

National Obligated Companies:

- They Buy recycled matters anyway; they ensure a (mimimum) payiment;
- They accept only packages; they're not rapid and efficient;

Selection plants:

- Now teir number is OK;
- Sometimes they're not well distributed.

5. Evolution of “contest”

pag.2

Communication. All speak about wastes, so ...:

- ... messages are very “strong” ...
- ... not always very “exact”;

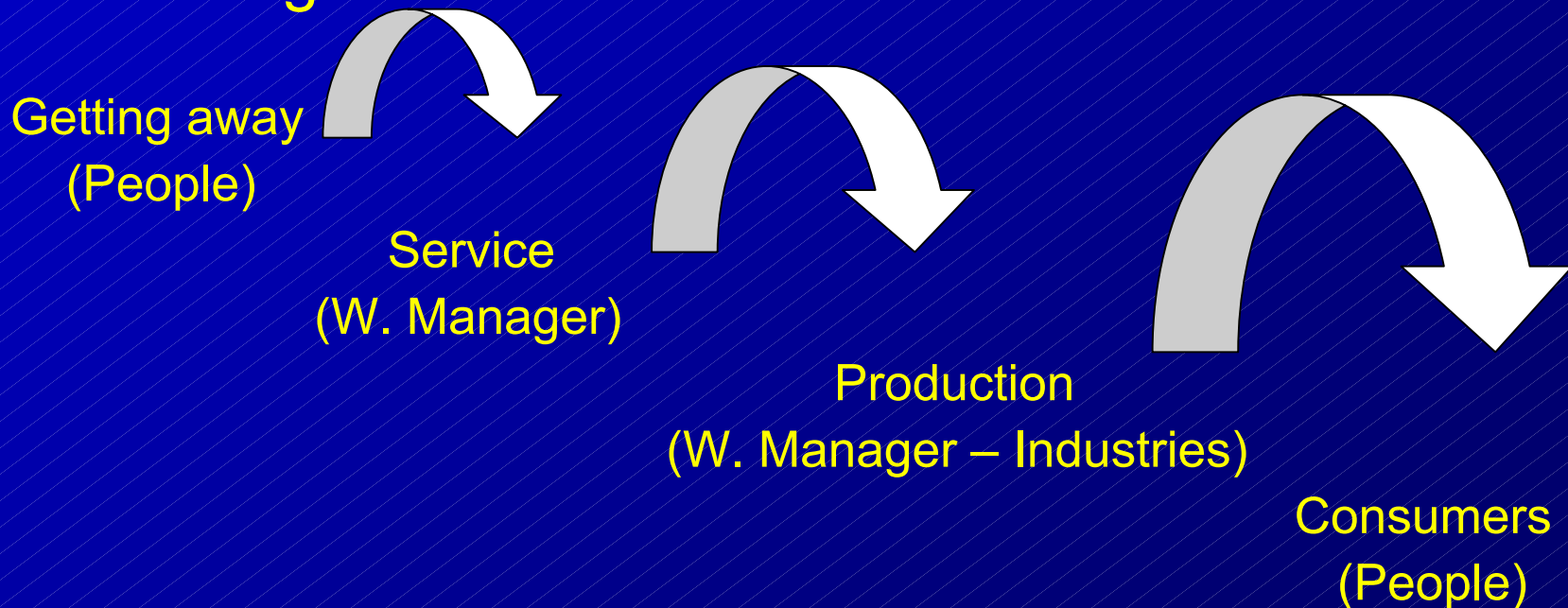
Using recovered matters:

- Industries are ready to receive “first matters” recovered from wastes;
- Commercial net and promotion of products obtained from recycled wastes is still not sufficient.

6. Conclusions

pag.1

- Objectives of Reduction of wastes need more money and more attention;
- Recovery activities may be thought as a chain of four rings:



6. Conclusions

pag.2

Two observations:

- Maximum strenght of the chain is that of the weaker ring;
- People have “double weight” (triple, if we consider their role in “reduction” of wastes).

6. Conclusions

pag. 3

Costs of Separate Collecting of wastes:

- They depend from the “quantity” of wastes you want collect, but also from the “variety” of collecting methods;
- They don’t develop in linear progression, but by “steps”; for each “cost level” there is an “optimum recovery level”; when you reach it, you must go to an higher “cost level”.