



Recycling Society

26-27 October 2011/Genova/Italy

Lipor - Intermunicipal Waste Management
of Greater Porto

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Agenda

❖ Waste Prevention

Waste Prevention Plan

❖ Lipor Waste Management System

❖ Waste Prevention Plan – Lipor

Strategy

Datas and Results

Communication



Waste Prevention

Waste Prevention

A common feature



WE ALL PRODUCE **WASTE**





Waste Prevention



Waste Prevention means to reduce or even eliminate waste generation.

Waste Prevention can be:

Quantity Approach

(Source Elimination; Source Reduction and Reuse).



Quality Approach

(Elimination or Reduction of the waste dangerousness).



Waste Prevention Plan



There are several aspects that support a **Waste Prevention Plan**.

It is necessary to *understand and define* some aspects:

- The Prevention Plan is for the Country? Region? City?

“Which is the territorial scope of the plan?”

- Which is the duration time of the Prevention Plan?

It defines the typology of the measures (short, medium and long run).

- Which are the objectives? Which goals are intended to reach?

Awareness? An effective reduction of waste?

- Who is going to make and How?

It is necessary to materialize the plans. Are there other Plans?





Waste Prevention Plan

A Plan of this nature cannot be thought without having in account the national conjuncture. It's necessary a **“Global Analysis”**

- **Can a Prevention Plan be a *Social Tool*?**
- **Which measures can foment new markets and new chances?**
- **Which measures can have a legal or politician conditioning ?**
- **Which localities, cities, regions are prepared for this?**



Waste Prevention Plan

A **Prevention Plan** is an integrated system of actions and measures that encompasses a broader and comprehensive strategic planning than just waste management.

A **Prevention Plan** should combine not only the environmental, social and economic side, as well as innovation, equity and quality.



Waste Prevention is a set of pieces that will build and optimize towards a more sustainable future.



Lipor Waste Management



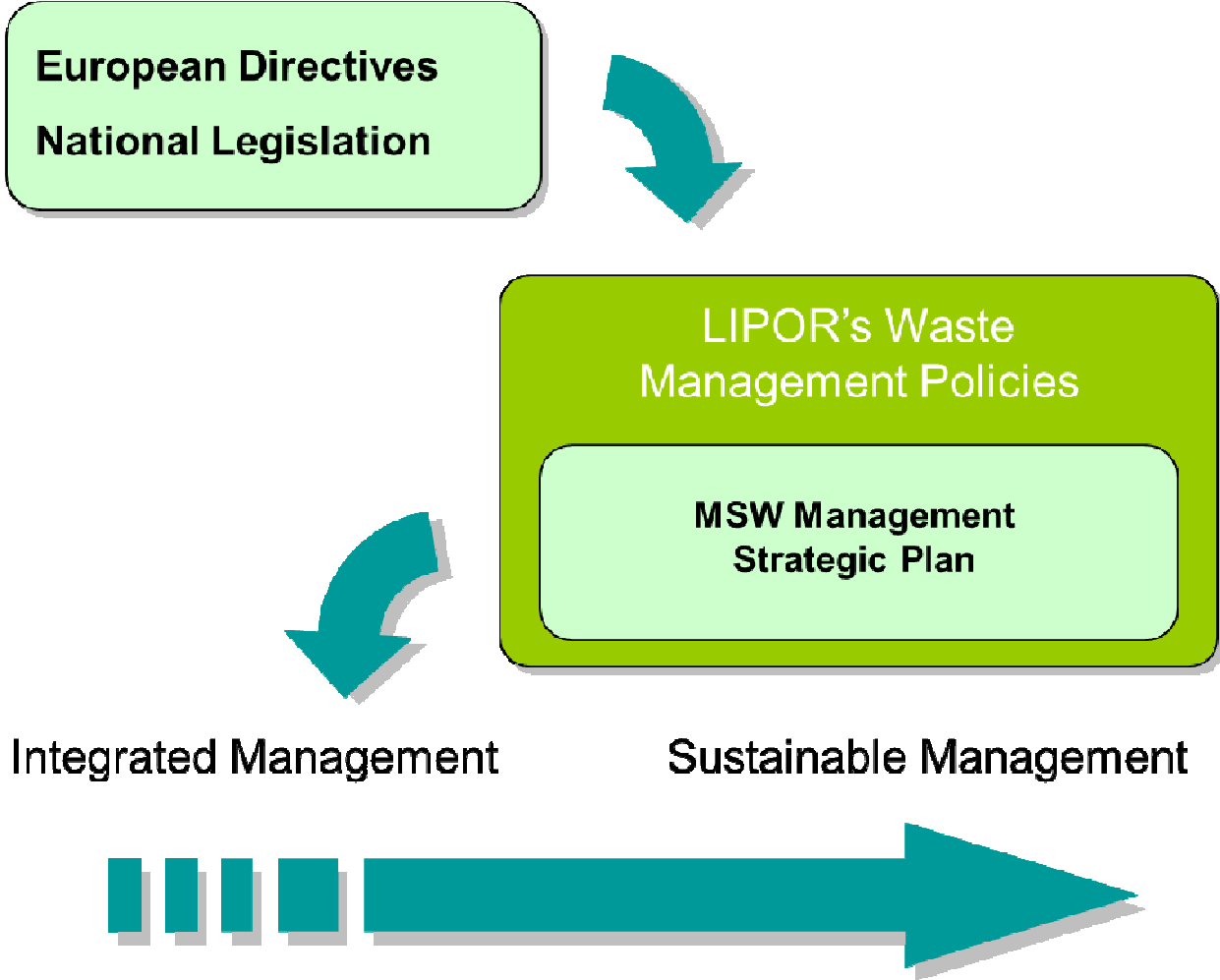
- **8 Municipalities**
- **Area** – 648 km²
- **Population** – 1 million inhabitants

- **MSW production (2010)** – 509.527 ton
- **Capitation** – 1,44 kg/inhab/day

- **Carbon footprint:**
2010 – 372.551 ton CO₂eq
Capitation – 401 kg CO₂eq/inhab

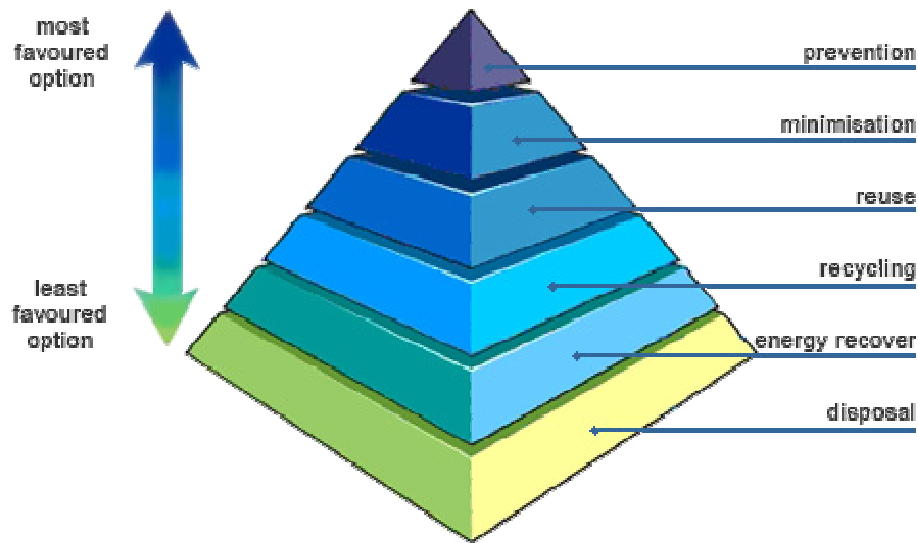


Lipor Waste Management





Waste Management Hierarchy - Lipor



Lipor goal is to define, in partnership with municipalities and the others players, a role of actions in order to achieve a waste management sustainability which preserves and obeys to the waste hierarchy.



Waste Prevention Plan - Lipor

Waste Prevention Plan - Lipor



The metropolitan area of Porto consists of different realities.

The aggregate of **urban areas, rural areas and mixed areas**, reflect, for each zone, different productions and types of waste.

So, by identify and characterize the waste of different "realities" allows to define methodologies and actions to implement formatted for each "zone".

On the other hand prepare us to carry the knowledge acquired to other locations/regions.



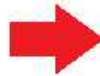
Waste Prevention Plan - Lipor

Waste Prevention Plan - Lipor

Waste Prevention requires us to rethink the management models.



- You can eliminate the waste at source?
- Can Waste production decrease?
- Can the waste produced be reused?
- It is possible to separate and recycle the waste after reused?





Waste Prevention Plan - Lipor

Waste Prevention Plan - Measures

How to Intervent

Priority Actions - Examples:

- Promotion of home and community Composting;
- Reduce Junk Mail;
- Project "100 Kg Less in school"- Meals without waste;
- Promotion of Tapwater consumption;
- Reduce plastic bags consumption;
- "Right Portion" Menu



Waste Prevention Plan - Lipor

Waste Prevention Plan - Targets

Urban Area

Action	Reduction Kg/inhab./year
Tap Water	2,7
Non-Addressed Mail	5
Plastic Bags	1,8
Wright Doses Meal	48,5
Less 100 Kg in Schools	0,5
Total	58,5

The organic flow present on MSW (around 40%) is a priority flow for intervention.

In Urban areas we are implemented a collective composting project.

Rural Area

Action	Reduction Kg/inhab./year
Community Composting	109
Wright Doses Meal	0,5
Total	109,5

Mixed Area

Action	Reduction Kg/inhab./year
Tap Water	2,7
Plastic Bags	1,8
Home Composting	100
Wright Doses Meal	0,5
Total	105

Flow	Project	Description	Goal.	Result*
Organic Waste	"Land to Land" TAT	Nr. of distributed composters	4.031 composters	4.464 composters
		Quantity of avoided waste	1.209 ton/year	1.339 ton/year
	Natural Garden Project HAP	Nr. Of new vegetable gardens created	2 (16 since the beginning of the project)	2
		Quantity of avoided waste	***	101,7 ton/year
	School Garden	Nr. of active vegetable gardens	25	52
		Quantity of avoided waste	***	35,5 ton/ano
	Right Portion	Nr. acceding restaurants	3	3
		Quantity of avoided waste	***	***
Recyclable Waste	Meals without Waste	Nr. of participant s	1.500 students	1.500 students
		Nr. Lunch boxes distributed	1.500	1.400
	Junk Mail	% of accession to the sticker "Not addressed Pub"	10%	23,41%
Communication	EWWR 2010	Nr. of participants	100	215
	Training Programme	Nr. of participants	100	145
	Press	Nr. of published news	***	116

* 2010 datas



Waste Prevention Plan - Communication

Waste Prevention Plan - Communication

To KNOW

To light-up the interest to the question;

To take the agent (Producer or Consumer) to think about its habits;

Why we should prevent?

- To lock the waste production growth;

- To save money;

- To save primary resources;

- To help the combat to the climate changes;

- (...)

To ACT

To promote changes of behaviours

What can we do to prevent?

- To reduce the consume, only buying the real necessary products;

- To avoid the waste;

- The best things in life...aren't things;

- (...)



Waste Prevention - Communication

Waste Prevention Plan - Communication

Approach for a change of attitudes:

- To detach the importance of the prevention temathique;
- To demonstrate that the Prevention is tangible;
- To board the consequences of an irresponsible consumption;
- To set examples of actions (practical and realizable);
- To communicate the benefits;
- It is simple and accessible to all;
- To create a feeling of collective promise that stimulates to the action;
- To promote the partnerships,...



More Information

www.lipor.pt



www.hortadaformiga.com



www.eunaofacolixo.com

