Zurich Airport

Waste Management



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Waste Management at Airports

- 1. Introduction
- 2. Legal Framework
- 3. Management Approach
- 4. Case Study Example
- 5. Conclusions



Introduction

Why do we need a Waste Management at an airport?

- Waste is generated continuously, every day, with various "quality"
- Waste can be hazardous to humans and the ecosystem
- Waste disposal can be expensive and can become a relevant cost factor
- Increased knowlegde on airport environmental impacts
- Basis for mitigation and cost savings

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Legal Framework

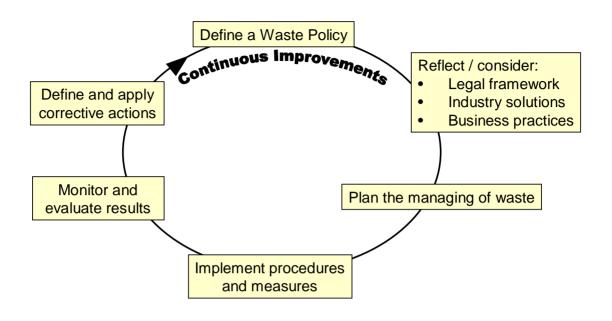
In most countries, there are legal provisions on how to deal with waste and materials:

- Articles (29-33) in Law 4/1994 on Hazardous Materials and Wastes Management and Control in Egypt;
- Switzerland: VeVA (2006, superceeding the VVS): Legislation on dealing with hazardous waste;



There is a legal obligation what to do, what not to do and (maybe) how to do things.

Management Approach



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Planning Waste Management

Important questions:

- Who are the partners?
- What do we want to achieve?
- What is the main strategy?
- What elements are needed to implement the strategy?
- How do we control and improve the process?



Who are the partners?

- Airport Operating Company: waste from offices, airfield maintenance
- Airlines Operators: waste from aircraft cabin/galley, maintenance
- Handling Agents: waste from aircraft cabin/galley
- Catering Companies: waste from meals and returns
- Cargo Companies: waste from packaging materials
- Concessionaires: waste from offices, shops, restaurants,...
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What do we want to achieve?

- Saving costs
- Improving environmental footprint (reducing impacts)
- Save resources



What is the main strategy?

- 1. Prevent origination of waste
- · Reuse of packaging materials
- Policy on printing/copying
- Reduction of wrapping etc
- 2. Minimize amount of waste
- Separation (at point of origin)
- Compacting
- 3. Waste Treatement
- Incineration (combined with heat production)
- Decontamination
- Recycling

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What are the elements needed to implement the strategy?

Logistics:

- Waste collection infrastructre (collection/separation points)
- Signage/labelling

Management:

- Procurement agreements (e.g. using reusable packaging materials/bins)
- Data capturing tool (getting the amount and type of waste)
- Reporting mechanisms (company management, authorities, public)



How to control the process?

Ideas:

- Train and encourage the staff
- Obtain regular progress reports, meaningful data
- Have tasks, authority and responsibilities defined



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Aims and concept of the Zurich airport waste management

- Optimization of waste management to reduce disposal costs
- Reduction of waste fraction through increase of segregation at the origin
- Polluter-pays-principle
- Avoiding waste generation through changes in buying and processes
- Close cooperation of airport partners to increase efficiency



- airport-wide dense disposal system with separation stations and central disposal stations
- airport-wide standardized signage system for disposal stations and waste bins
- annual airport-wide waste survey
- computer aided waste management with polluter-pays-principle

Labelling all waste fractions

Uniform, airport-wide labelling system for both the public domain and the operation areas:

- Symbol
- Color
- Text (multiple languages)

Currently approx. 40 waste fractions defined for operation areas, but only 3 for public areas.



Public Areas

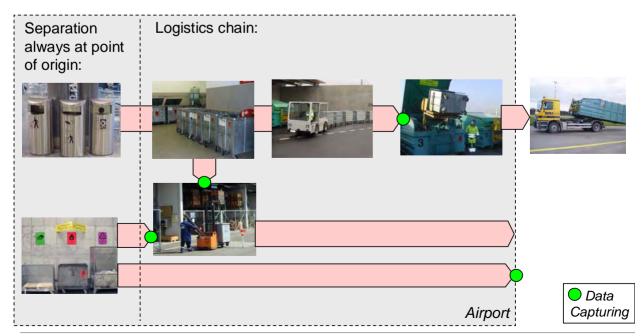


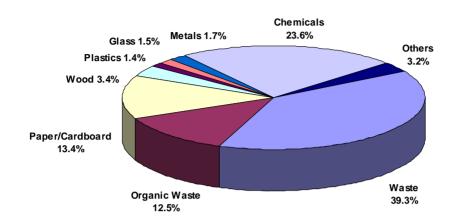
Operation Areas

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Separation and disposal logistics



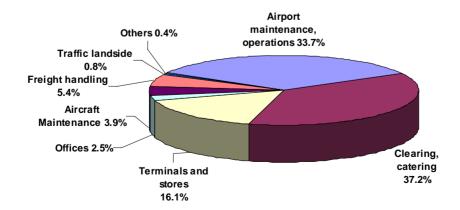


source: waste survey 2007

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Origin of waste



source: waste survey 2007

Conclusions

- Airports take the role of cities when it comes to waste management.
- It's the type of waste and in particular the volume of waste that matters.
- Waste management includes all partners at the airport.
- Common set of definitions, procedures and handling equipment is needed.
- Control of the waste streams is essential for successful mitigation.



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Thank you!



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