Managing Industrial Waste
A Brief Overview

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Malta

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Defining Industrial Waste

- Hazardous
  - Oils
  - Solvents
  - Chemicals

- Non-Hazardous
  - Food waste
  - Office scraps
  - C&D Waste

Similar to MSW
## Properties of Waste - Hazardous

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<tr>
<td>Explosive</td>
<td>Oxidising</td>
<td>Highly flammable</td>
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<td>Flammable</td>
<td>Irritant</td>
<td>Harmful</td>
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<td>Toxic</td>
<td>Carcinogenic</td>
<td>Corrosive</td>
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<td>Infectious</td>
<td>Toxic for reproduction</td>
<td>Mutagenic</td>
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<td>Waste which releases toxic or very toxic gases in contact with water, air or an acid</td>
<td>Waste capable by any means, after disposal, of yielding another substance, e.g. a leachate</td>
<td>Ecotoxic</td>
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<td>Sensitizing</td>
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Legislative Provisions
Managing Hazardous Waste

- Commission Decision 2000/532/EC of 3 May 2000 establishes a list of wastes including hazardous waste
- A Member State may add to the list of waste
- Evidence-based de-listing may also be possible
- Hazardous waste should be labelled in accordance with international and Community standards
Managing Hazardous Waste

- Production, collection and transportation of hazardous waste, its storage and treatment need to be carried out in conditions providing protection for the environment and human health.
- Includes action to ensure traceability from production to final destination.
- Whenever hazardous waste is transferred within a Member State, it shall be accompanied by an identification document.
Regulation 1013/2006 provides the legal framework for the transportation of waste:

- between Member States, within the Community or with transit through third countries
- imported into the Community from third countries
- exported from the Community to third countries
- in transit through the Community, on the way from and to third countries

Transposes the provisions of the Basel Convention
Shipment of Waste

- Shipment of waste governed by a system of prior written notification and consent

- Contract between the notifier and the consignee for the recovery or disposal of the notified waste with obligations on:
  - notifier to take the waste back if the shipment or the recovery or disposal has not been completed as intended
  - on the consignee to recover or dispose of the waste if it has been effected as an illegal shipment
  - on the facility to provide a certificate that the waste has been recovered or disposed of
Financial guarantee required to cover:

- costs of transport
- costs of recovery or disposal, including any necessary interim operation
- costs of storage for 90 days
Notification sent by competent authority of the sending state can be subject to the following responses from the competent authority of the receiving state:

- consent without conditions
- consent with conditions
- objections
State of Play in the EU
EU-wide State of Play

- Majority of MS transposed Directive into national law
- In general, MS provided the Commission with the documents requested and provided the required notifications
EU-wide State of Play

The main issues may be summarized as:

- quality and precision of the different reports varies considerably
- a number of MS did not provide detailed information on the way they have transposed the Directive into national law
- some MS completed their reports by mainly referring to their reports submitted for the previous reporting period 2004-2006 with some or little changes, additions or alterations
Main uncertainties:

- details on how precisely mixing ban was transposed and under which circumstances they make exemptions from the mixing ban are scarce
- the legal possibility to exempt certain establishments or undertakings from the permit requirements of the Waste Framework Directive by adopting general rules and laying down specific conditions was taken up only by few Member States
EU-wide State of Play

- **Main uncertainties:**
  - only some countries lay down a general minimum frequency of periodic inspections
  - questionable whether a purely complaint-based routine of inspections lives up to the Directive’s requirements of periodic inspections which would mean routine inspections independently of a concrete complaint
  - not clear for some MS whether their inspections cover producers, waste management/treatment operations generally or purely waste treatment
Main uncertainties:

- record keeping requirements for some MS not clear whether they really target producers (i.e. original producers) of hazardous waste

- details on standard forms, provided by the majority of Member States, consist mainly in a reference to certain national regulations where the standard forms to be used are provided
Policy Considerations
Hazardous Waste Management remains governed by the Waste Hierarchy

**EU’S WASTE HIERARCHY**

1. **PREVENTION**: Minimize the amount of waste through various means of control.
2. **RE-USE**: All waste will be re-used to the greatest extent possible.
3. **RECYCLING**: When raw material can be recycled, major resources are saved.
4. **RECOVERY**: Combustible waste is a resource for energy extraction.
5. **DISPOSAL**: As a final step, deposit at a refuse dump.
Hazardous waste management remains the domain of the private sector.

Government’s role should be limited to that of policy making and regulation.
Our actions should allow us to meet our needs without compromising the ability of future generations to meet their own needs.

Maximising economic, social and environmental goals.
Climate Proofing

- Minimise greenhouse gas emissions
- Maximise opportunities for climate change adaptation and resilience
Circular Economy

- Lightweighting
- Durability
- Efficiency
- Recyclates
- Ecodesign
- Industrial symbiosis
Self Sufficiency & Proximity

- Ensure that sufficient disposal facilities are provided in the country as a whole to match expected arisings of all hazardous wastes, except those produced in very small quantities, and to enable hazardous waste to be disposed of in one of the nearest appropriate installations.

- Keep in view insularity, size and capacity constraints.
Decision Making
Decision Making

Initial decision making tree for hazardous waste management
Decision Making

Initial decision making tree for hazardous articles
Initial decision making tree for hazardous organic waste

Decision Making

- Preparing for reuse
  - Filtration
  - Cleaning
  - Washing

- Recycling
  - Oil regeneration
  - Solvent distillation

- Recovery
  - Biological treatment with energy recovery
  - Use as fossil fuel substitute
  - Thermal destruction with energy recovery

- Other treatment
  - Blending of waste for thermal recovery
  - Other treatment for thermal recovery

- Chemical Treatment
  - Biological Treatment
  - Thermal destruction
Decision Making

Initial decision making tree for hazardous inorganic waste
Best Practice Initiatives
Best Practice in HWM

- Continuously engage with priority sectors (pharmaceutical, health, agricultural, household, publishing & printing and transport) likely to generate hazardous waste
- Promote hazardous waste prevention, cleaner technology and better compliance with regulation
- Incorporate the prevention of the generation of hazardous waste into National Waste Prevention Programmes
Best Practice in HWM

- Green Public Procurement should provide for the substitution or reduction in use of hazardous materials and products in public procurement (eco-design)
- Carry out waste characterisation studies to profile hazardous waste content of arisings from smaller sources (e.g. households and small business)
Best Practice in HWM

- Consider the development of potential new producer responsibility obligations for certain hazardous waste streams (a take-back scheme for unused or expired human medicines)

- Engage local stakeholders to develop adequate collection facilities for small-scale quantities of hazardous waste from households and small businesses (e.g. at civic amenity sites, mobile special collections, batteries etc)
Best Practice in HWM

- Conduct regular awareness and information campaigns (e.g. via social media as well as outreach) to pro-actively update and inform individuals and businesses of available hazardous waste collection services in their areas, as well as their legal obligations.

- Provide and disseminate practical guidance on the management of sectoral hazardous waste (e.g. household, commercial, farming).
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Thank you
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