

 Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety


Deutschland 2016

Sound waste management

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 Federal Ministry for the Environment, Nature Conservation, Building and Nuclear Safety

Legislation in Germany

- 1895** Prussian local tax law (i.a. waste management fees)
- 1972** Closure of 50 000 dumps in Germany
- 1986** First obligations for Recovery and Recycling
„3R“-Policy
- 1991** First Regulation on Extended Producer Responsibility
- 1996** General Recycling Obligation
„Circular Economy“ – number of regulations
- 2005** Landfill Ban

Reasons



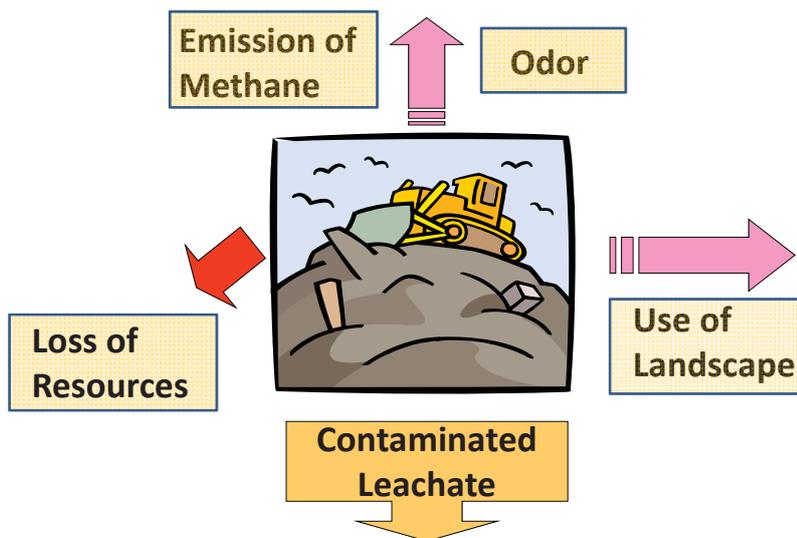
Ecological Needs:

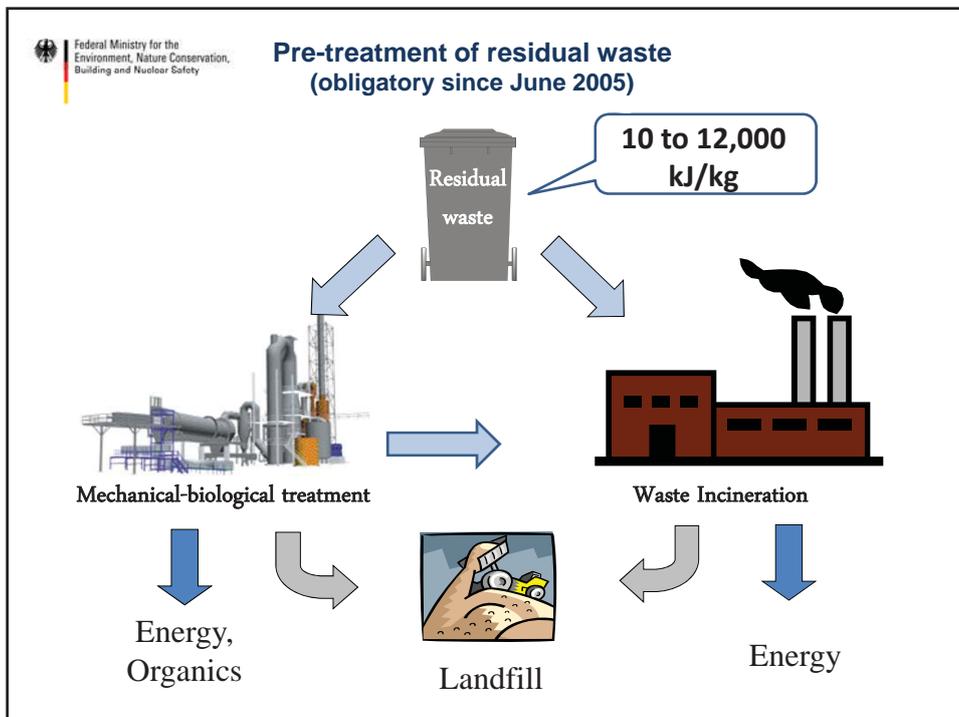
Environment (Soil, Water, Air)
Resources (Raw Material, Energy)
Climate (Green House Gas)

Economic Needs:

Availability of Waste Services
Level Playing Field (Competition)
Employment
Investments

Landfills and dumps – Harmful to the Environment





Legal obligations ...

Segregation at source

Separate collection and separation after collection

Recycling

Incineration of residues (recovery of energy / high standard gas cleaning)

No bio-degradable waste to landfills

... plus incentives

High technical and organisational standards

↳ Higher costs and prices

↳ Less waste, more separation, more recycling / recovery

Recycling by segregation / separation



Private Households

Bio waste
Paper
Packaging
Glass
[Metals]
E-waste
Batteries
Textiles
Hazardous waste
Residues

Commerce / Industry

+

Wood
Plastics
Metals
Mineral waste
other mono-charges:
slags,
sludges,
RDF

Germany: Basic Data (2013)

		Recycling
Total Waste Generation:	339 Mio to	(71 %)
Municipal waste:	50 Mio to	(64 %)
[Household waste:	44 Mio to]	(65 %)
Production and commercial waste:	57 Mio to	(51 %)
Mining waste:	29 Mio to	(1 %)
C&D waste:	203 Mio to	(88 %)
[Treatment waste:	47 Mio to	(54 %)
[Hazardouzs Waste:	17 Mio to	(57 %)

More than **200,000 people** work in waste management
 Annual turnover of about **40 billion Euro**

Waste Management Infrastructure (2013)

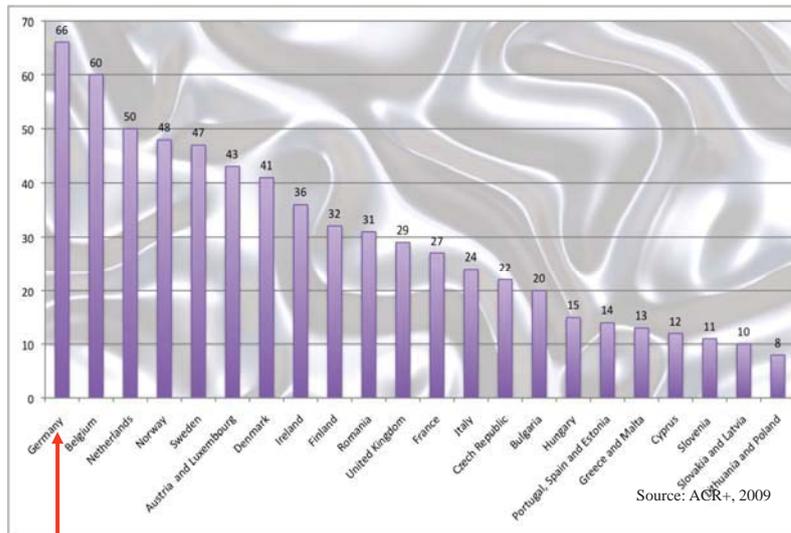
167	Waste-Incineration Plants (incl. 70 MWI)	
705	Waste-to-Energy Plants	
552	CP-Treatment Plants	
2462	Biological Treatment Plants (Comp./Digestion etc.)	
58	MBT	
1094	Sorting Plants	
1331	ELV-Dismantling Plants	
321	WEEE-Dismantling Plants	
114	Soil Treatment Plants	
2172	C&D-Recovery Plants	

15 586 Plants

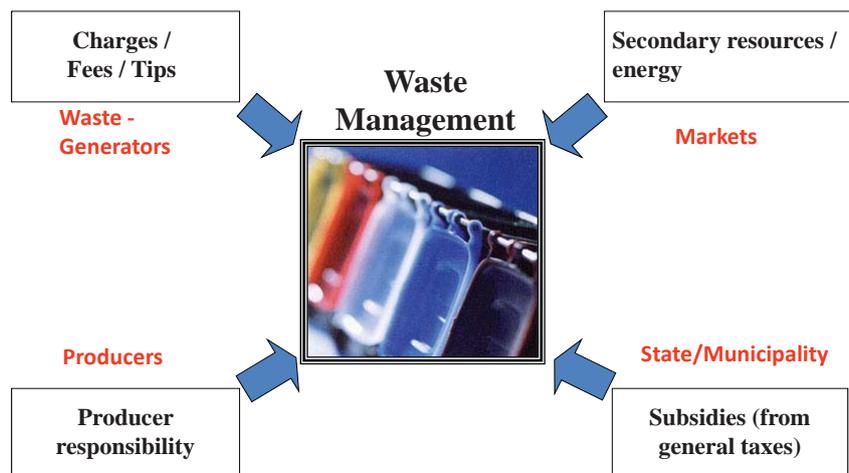
3000 Companies

402 Municipalities

Recycling rates in Europe Household Waste



Financing of Waste Management (in general)



Results

- ➔ Saving of 46 Mio tons of CO₂ equivalents until 2005
- ➔ 20 % of Kioto-Targets for 2005 and
10 % for 2020 by waste management
- ➔ 3.6% electricity and 2.2% thermal energy by Waste-to-energy
- ➔ No uncontrolled biological or burning processes in
landfills
- ➔ 65 % Recycling Rate for Municipal Solid Waste
- ➔ Appr. 200.000 Persons working in this sector

Green Economy

Ecological Benefits

- Protection of
- Resources
 - Environment
 - Climate



Social Benefits

- Employment
- Qualification
- Welfare

Economic Benefits

- Investments
- Turnover
- Profits
- Employment

Bilateral and multilateral Cooperation

Bilateral:

GIZ

Ministry

- Several EU-Member states

- i.a. China, Egypt, Jordan, Israel, Turkey

Twinnings (currently: Serbia)

Multilateral:

- European Union and OECD

- Basel Convention on Hazardous and other Waste

Expert Working Group on ESM

Manuals (brief and practical) on Permitting, Model legislation, Certification, Prevention etc.)

Waste Fact Sheets (i.a. Municipal, Hazardous Waste)

Pilot Projects

Contributions of Private Sector



**Thank You
very much for
Your attention**

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