



## 3R Portfolio - Good Practices to Promote the 3Rs -

### Country: Germany

#### Major Activities

##### 1. Promotion of Measures to Establish an Environmentally Sound and Sustainable Closed Cycle Economy

- Since the middle of the 1980s the three R's are supported as an integrated concept. Avoidance and recovery are the core principles of waste policy and legislation.
- In 1994 environmental protection gained constitutional status and was declared a priority objective for the state under Article 20a of the Basic Law.
- **Closed Substance Cycle and Waste Management Act** (1996) with basic obligations with respect to safe and high quality recycling and management as well as product responsibility; manufacturing of products geared towards effective and environmentally sound waste management and recycling; return, recovery and disposal obligation by the manufacturer.
- National Sustainability Strategy "Perspectives for Germany" (2002); Progress Report 2004.

##### 2. Further Measures to Avoid Waste Generation

- Return obligations as incentive to avoid waste.
- Introduction of Packaging Deposits (61 % reusable packaging).

##### 3. Introduction of EPR to promote 3R Considerations in Product Design and Production Stages

- 1994 voluntary commitment by graphic paper industry to reuse waste graphic paper to 60% by the year 2000. Since 2001 guaranteed long term reuse rate of 80%.
- 1996 voluntary commitment by the construction industry to halve the amount of stored reusable wastes from construction activities by 2005. Required rate of reuse was attained, present rate 70%.
- **End-of-Life Vehicle Act** (2002) requires the return of vehicles to the manufacturer or importer free of charge (return system covering the whole surface area of Germany). For cars of the active fleet this will apply as of January 2007. As of 2006 at least 85% by weight shall be recovered, at least 80 % recycling or reuse of materials. As of 2015 95 % recycling or 85 % (material recycling, reuse).
- **Act on the Disposal of Information, Office and Communications Technology Equipment** (2005) requires return of equipment free of charge at public collection points as of March 2006. Manufacturers accept equipment back and dispose of it. Ban on the use of certain hazardous substances in new equipment. **Battery Ordinance** (1998; tightened in 2001) guarantees environmentally sound recycling or disposal (recycling rate 2003: 72 %; for starter batteries almost 100 %).

#### 4. Support/Strengthening of Recycling Activities

- **Ordinance on Bio-Wastes** (1998) use of biodegradable wastes with low pollutant contents in agriculture after composting or fermentation. Separate collection of approximately 8 Mio. t.
- Production Wastes have to be reused within the framework of manufacturing processes (recycling rate for residual wastes from production processes and the business and trade sector 39 %).
- **Packaging Ordinance** (1991) Manufacturer and distributor have the obligation to accept back and recycle packaging material. Collection and disposal system for the whole Federal Republic (green dot, Grüner Punkt). Since 1993 recycling of more than 50 Mio. tonnes of sales packages. Decoupling of the volume of packaging material and economic growth.

#### 5. Promotion of Proper Waste Treatment

- Obligation to sort and separate waste and ban on mixing certain kinds of waste.
- Construction of modern installations for the incineration and disposal of waste throughout Germany, sophisticated mechanical-biological installations, fermentation, composting, processing of incineration ashes and wastes from construction activities, production of secondary fuels, chemical physical processes for hazardous wastes.
- Recycling of municipal wastes about 50%. Prevention of biodegradation processes (prevention of methane gas emissions for climate protection) on landfills by means of thermal or sophisticated mechanical-biological pre treatment; objective: no more disposal of municipal wastes in open landfills necessary in 15 years.
- After June 2005 no more disposal of municipal waste containing degradable components; through separate collection composting and fermentation of biodegradable wastes and obligation for pre treatment.
- **Ordinance on the Management of Waste Wood** (2002) states requirements for the management of waste wood.
- **Ordinance on Commercial Waste (Gewerbeabfallverordnung ,2002)** states requirements for the separate storage of municipal waste of commercial origin and for the pre treatment of mixed waste.

#### 6. Promotion of 3R Related Development of Technologies

- Approximately 30% of municipal sewage sludge is used as fertiliser in agriculture (high share of phosphate); due to pollutant content it will lose its importance as fertilizer (soil conservation). Support of processes to produce low pollutant phosphate.

#### 7. Promotion of Proper Waste Disposal

- **Landfill Ordinance** (2002) sets high standards for the landfilling of waste. Conversion of all landfills by 2009 or closure.
- **Ordinance on Mine Backfilling (Versatzverordnung ,2002)** guarantees that wastes

containing hazardous substances are durably sealed from the biosphere in salt domes in the course of remediation activities in the mining sector and stipulates priority of recycling for metal containing wastes (responsible resource management).

- **Ordinance on the prohibition of PCBs and PCTs (2000)** provides for the safe disposal of all PCB containing wastes (transformers, condensers); ban on the use of PCB as of 1 January 2000.
- **EU Directive on POPs (2004).**

8. Raising Consumer Awareness of Waste Issues

- Eco-labelling: 1977 introduction of “Blue Eco Angel” for environmentally friendly products (more than 3000 at present).
- Consumer information on how to reduce waste: waste counselling by local authorities, Homepage of the Federal Ministry for the Environment: [http://www.bmu.de/english/soil\\_waste\\_water/aktuell/35018.php](http://www.bmu.de/english/soil_waste_water/aktuell/35018.php), brochures.

9. Review of National Efforts

- Life cycle analyses (LCA) of environmental impacts of products for their total useful life as a basis for regulations.
- Survey “The Contribution of Waste Management to Sustainable Development in Germany (Beitrag der Abfallwirtschaft zur nachhaltigen Entwicklung in Deutschland)” indicates that waste management did a lot to improve the environmental situation over the last 15 years (e.g. climate protection, fossil and mineral resources, cancer risks).

10. International Support to Introduce and Implement the 3Rs

- Study (2004) on waste avoidance commissioned by the Basel Convention and Germany.
- Guidance and support for the 10 new EU Member States (2004) through partnership projects (“Twinning Projects“), exchange of experts, seminars and study tours.

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