Public awareness of the risks associated with waste management, particularly with hazardous waste, has risen sharply in the wake of major pollution incidents and proven damage to health. This in itself, however, is not enough to reverse current trends.

### 35 million tons of hazardous waste a year

Approximately 2% of the estimated 2 billion tons of waste generated in the European Union every year is classified as hazardous. Most of this waste has an industrial origin although there are elements of household waste such as certain paints, solvents, batteries and oils which are hazardous and should be separately collected from ordinary household waste to avoid harm to the environment being caused.

### Industrial waste

Some industrial wastes can be hazardous, which complicates their disposal. Examples are:

- **Agricultural** wastes can contain pesticide residues.

- **Sludge** from dredging and purification plants often has high concentrations of heavy metals and organic compounds.

- **Building** wastes can contain asbestos and other hazardous substances.

- **Hospital** wastes include certain contaminated materials.

### Thousands of contaminated sites

More than 55,000 sites contaminated by waste disposal have been identified in six European countries alone, but this inventory (Carrera and Robertiello, 1993) reveals the inconsistency of contaminated site’s definition rather than their actual number. Nevertheless, almost half were found to be in a critical state, threatening public health and groundwater quality in the vicinity of the site. Annual clean-up costs for the EU as a whole amount to a prohibitive

\[ \text{ECU} 1,000,000,000,000 \]

### Radioactive waste

Every nuclear power station produces thousands of cubic metres of radioactive waste a year. Most of it is only slightly radioactive, but a small proportion, originating from the station core, is highly dangerous and has to be vitrified (encased in a solid block) before being buried deep in the earth’s crust. It will remain active for centuries and the long-term repercussions of its presence are still far from clear. The recent case surrounding La Hague shows the potential risks involved in treatment of waste. The decommissioning of obsolete nuclear plants and the transport of radioactive waste also cause serious health and safety problems.
Several pieces of legislation have been introduced to deal with the problem of hazardous waste at European level. The main ones include:

- The hazardous waste directive which requires Member States to abide by certain rules for its collection, handling, recycling and treatment. This entails the regular inspection of companies that handle hazardous waste, introducing regulations to ensure that it is correctly packaged and labelled and drawing up emergency procedures.

- The Directive on the incineration of hazardous waste, the aim of which is to limit emissions into the air and water from hazardous waste incinerators and from production plants like cement kilns and power plants co-injecting hazardous waste.

- The regulation on the supervision and control of shipments within, into and out of the European Community has the aim to minimise waste movement. Under this regulation, exports of hazardous waste, whether for disposal or recovery, to non-OECD countries has been prohibited since 1 January 1998. The regulation enshrines in Community law the Basle Convention on the control of transboundary movements of hazardous waste and their disposal.

A matter of definition

Before we can manage and regulate hazardous waste movements more effectively, we have to harmonise our definitions at European and international level. For the purpose of Community law, the term ‘waste’ has been defined by the 1975 Waste Framework Directive, and a 1994 Council Decision defined what is hazardous and at the same time established the ‘Hazardous Waste List’.

Radioactive waste

A joint seven-year action plan was adopted in 1992 for the period 1993-99. It focuses on the problems associated with radioactive waste and encourages Member States to cooperate in the field of:

- enhanced information for the public;
- permanent analysis of the situation (e.g. radioactivity levels);
- heightened safety efforts for the storage of radioactive waste.
Meanwhile, a directive on the monitoring and regulation of radioactive waste shipments defines the procedures to be followed during transportation.

Developments

The Good...                    ...the Bad

- Selective collection and recycling programmes are enjoying growing success.
- European citizens and Member States are becoming increasingly aware of the need to avoid waste creation.
- Improved product design, clean technologies and the use of less hazardous materials could significantly reduce volumes of industrial and hazardous waste.
- Current trends suggest that the volume of hazardous waste will continue to grow between 1990 and 2000.
Reducing waste movements at international level

Adopting international rules to limit waste shipments is vital if we want to prevent the most hazardous waste products from being systematically shipped to the regions with the most lax environmental regimes. This issue was first addressed in 1989 by the Basle Convention on the 'Control of Transboundary Movement of Hazardous Wastes and their disposal'. The 122 signatories to the convention agreed that henceforth the exporter of the wastes in question was to be responsible for their proper treatment.

Industry — immense potential

Experts believe that hazardous waste and toxic emissions can be cut by between 70 and 100% using better technology and rethinking product designs. Toxic compounds (CFC, chlorine, certain solvents, heavy metals), can be removed from certain products without altering their properties.

Citizens are mobilising

Major accidents have shown all too clearly that the burial of hazardous waste can cause significant public health problems. Landfill disposal has a very poor image in the eyes of the public, who are objecting ever more vehemently against the creation of new sites. The same kind of opposition has been shown towards waste-processing and incineration plants, presenting decision-makers with serious difficulties.

No region on our planet is exempt from waste.
(Antarctica)