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The EU Circular Economy package – life cycle thinking to life cycle law?

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Abstract

The European Union (EU) has had laws on the disposal of waste for over 30 years and laws concerning the environmental performance of products for over 20. However, these laws have not formed a cohesive whole – and that is about to change. December 2015 saw the European Commission (the body responsible for proposing new EU legislation) published its Circular Economy Package, with the stated objective of "closing the loop" of product lifecycles. This paper provides an overview of this package and demonstrates why the development of standards underpins future legislation. First-hand information is provided as the author of the paper is the Convenor of the newly created CEN-CENELEC group responsible for drafting standards related to the material efficiency of products.

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1. Introduction

Requirements aimed at reducing waste, reducing emissions of environmentally hazardous substances to the environment and reducing the impact on the environment have been a focus of legislation in the European Union for decades now.

December 2015 saw the next stage in the evolution of environmental protection measures with the publication by the European Commission of a number of measures referred to as the Circular Economy Package.

Nomenclature

CEN	European Committee for Standardization
CENELEC	European Committee for Electrotechnical Standardization
EC	European Community
EEC	European Economic Community
ETSI	European Telecommunications Standards Institute
The EU	European Union

2. Before the advent of EEC environmental legislation

When the European Economic Community (EEC) was first formed, and up to the early 1990s, the focus was on eliminating technical barriers to trade between Member States to facilitate a single market for goods. Consequently, activities concentrated on aligning legislation on e.g. product safety, health & safety in the workplace, electromagnetic compatibility (EMC) etc.

Naturally, Member States generally had their own legislation dealing with waste. Likewise, many countries had legislation dealing with the use of certain substances, but these were generally driven by safety rather than environmental considerations.

This period can, therefore, be represented as the linear model of material flows as illustrated in Fig 1, at least as regards to the Community-wide legislation in place at the time.

Although environmental legislation was only regulated at Member State level during this period, and so was very variable, many policies and concepts were developed which would later

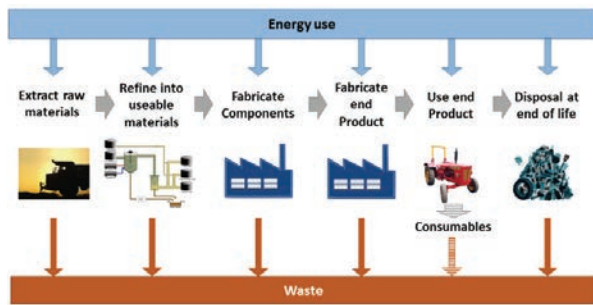


Fig. 1 Simplified material flows and energy utilization before the advent of EU environmental legislation

be used in pan-European environmental legislation. An example of this was the so-called 'New Approach' of 1985, whereby laws would only contain 'essential requirements' and the detail would be contained in standards. Compliance with standards would then enable manufacturers to demonstrate conformity with those 'essential requirements'. In this way, the legislation could remain unchanged for a number of years but the technical requirements would be kept up to date and reflect the 'state of the art' in each particular area. This in turn led to the term 'harmonised standard', which referred to standards cited in the Official Journal as offering this presumption of conformity, the citation being updated periodically as new standards were published and so superseded the older ones.

3. Current EU environmental legislation

3.1. General

From the late 1990s onwards there were increasing concerns globally with the need to protect the environment. In Europe this led to a number of policies and subsequent legislative measures to introduce a range of legislative measures to a) restrict the emission from products of substances that could harm the environment, b) reduce the quantity of materials going to landfill and c) reduce the energy consumed by certain products.

3.2. Waste reduction legislation

3.2.1 Introduction

Current EU legislation on waste reduction can be broken down into general requirements and requirements specific to certain products.

These Directives define minimum requirements that must be transposed into the laws of EU Member States. When transposing the above laws into their own national legislation, Member States can generally choose to go beyond the minimum requirements contained in these Directives, but they must not introduce less strict requirements.

3.2.2 General waste reduction requirements

The Waste Directive, dating from 1975, requires Member States to take measures to ensure that waste is disposed of without endangering human health and without harming the environment; it also introduced the 'polluter pays' principle (whereby the cost of disposing of waste is borne by those who dispose of the waste rather than society as a whole). This has been amended a number of times, the current legislation, introduced in 2008, is known as the Waste Framework Directive. This latter Directive contains the definitions for such activities as prevention, treatment, recycling, re-use, preparing for re-use and recovery (which includes energy recovery). It also sets out the waste management hierarchy, which has formed the basis for other legislative requirements.

The Landfill Directive, which has the objective of preventing, or reducing as far as possible, negative effects on the environment by introducing technical requirements for waste and landfill sites. It seeks to achieve this through specifying uniform technical standards at Community level and sets out requirements for the location, management, engineering, closure and monitoring for landfills. The Directive also includes requirements relating to the characteristics of the waste to be landfilled.

3.2.3 Product-specific waste measures

The Packaging Directive was published in 1994 and covered a wide range of packaging, for industrial, commercial, office, retail and household use regardless of the material used. It is aimed at limiting the production of packaging waste and promoting recycling, re-use and other forms of waste recovery with final disposal being considered as a last resort.

The End of Life Vehicles (ELV) Directive covers motor cars and light commercial vehicles. In addition to traditional waste considerations such as collection, de-pollution, re-use, recycling and treatment, the Directive also includes restrictions on the use of certain heavy metals.

The Waste Electrical and Electronic Equipment (WEEE) Directive covers waste resulting from the disposal of a wide range of electrical and electronic equipment. It requires that: Member States have facilities for separate collection (so as to minimize the disposal of WEEE in the form of unsorted municipal waste); collected WEEE is transported in a way which allows for preparing for re-use, recycling and the confinement of hazardous substances; and treatment operators use best available techniques to meet minimum requirements. European standards have been, or are in the process of being, developed to cover requirements for collection, logistics and treatment of WEEE, and preparing for re-use.

The Batteries Directive covers the recovery and controlled disposal of spent batteries and accumulators; the concentration of certain substances in new batteries and accumulators; and the use of batteries and accumulators in products so that they

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