

## Closed loop, dual system, a task for society as a whole: Waste management as an example of sustainable policy

### *An interview with Matthias Jung\**

A strong and efficient closed-loop economy lays an important foundation for achieving lower rates of primary raw material use, protecting natural resources and minimising environmental impact; in particular, through the avoidance and recycling of waste. In Germany, this has been strongly supported by product stewardship – as a fundamental organisational instrument that has been used for many years and is continuously developed. A key aspect of product stewardship involves internalising environmental costs in line with the ‘polluter pays’ principle. Since these costs are included in the pricing, they affect the competitive position, creating pressure to avoid them.<sup>1</sup> The principles of product stewardship and their concretisation are regulated through laws and regulations on federal level, as well as forming part of European Law. This contribution uses examples to illustrate crucial organisational key points of the regulations relating to batteries, electrical and electronic equipment and packaging.



### Overview

#### How is product stewardship an example for good administrative action?

In the regulatory areas of product stewardship, administrative organisation is based on the constitutional and statutory requirements, whereby some of the administrative tasks are carried out by authorities on state level and others by national government agencies. To this end, authorities and institutions were entrusted specific tasks, primarily relating to coordination, execution and information, and the organisation also involved manufacturers to some extent. In particular, the authorities’ administrative action facilitates the creation of the stipulated transparency and legal certainty. It is an important and effective instrument that also helps to secure and strengthen the actors’ independent performance of their tasks.

#### What is the idea behind product stewardship? Which requirements have already been enacted in this field?

The underlying idea of product stewardship is to involve manufacturers and distributors in the disposal task of their products that have become waste. This comprises both, recycling and other forms of recovery.<sup>2</sup> Re-

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quirements for registration and environmentally-friendly recovery aim to achieve that the greatest possible proportion of reusable material is recovered and recycled. Possible measures to support the objectives may include e.g. prohibiting substances or introducing labelling obligations. These are concretised through laws or regulations.

Examples would be laws and regulations for batteries, electrical and electronic equipment and packaging. In these areas, costs for environmentally compatible recovery of the end-of-life products are, in particular, imposed on manufacturers. Violations of fundamental obligations of the guidelines are subject to sanctions to ensure that the system keeps working, and to prevent that 'free riders' obtain individual cost advantages by not participating in the system.

## **What does this mean for manufacturers in general? How do manufacturers deal with the product stewardship requirements?**

Generally speaking, product design should take account of criteria that support the waste management objectives of waste avoidance, securing a large degree of material recyclability and adequate disposal.<sup>3</sup> Specific obligations may arise from individual guidelines.

If the manufacturer accepts the return on individual products it has produced and recycles them, e.g. a product design that supports easy disassembly and recycling can already be strengthened by the fact that it saves the manufacturer costs.<sup>4</sup> However, since the return of individual items involves some practical challenges – especially in the non-commercial area – product stewardship is regularly realised collectively based on the statutory requirements, i.e. the costs incurred by the manufacturer for the recycling and disposal of end-of-life products are in relation to similar or comparable products from the sector, rather than the specific products manufactured by the specific manufacturer.

Demanding requirements of the guidelines relating to the aforementioned laws and regulations for batteries, electrical and electronic equipment and packaging – e.g. for the collection and disassembly or recycling – are an important aspect for ensuring the ecological effectiveness of the system, especially in view of the above.

## **Examples from the Battery Act (BattG)**

### **You mentioned the Battery Act as an example for regulating product stewardship. What requirements does that involve for the manufacturers and retailers? And what responsible do consumers shoulder?**

According to the Battery Act, manufacturers have a fundamental duty to take any used batteries back and recycle them. This obligation is specified in more detail for different types, i.e. portable, automotive and industrial batteries. In relation to portable batteries, the obligation is generally ensured through a take-back system for used portable batteries operating nationwide (common collection system) that portable battery manufacturers participate in. Alternatively, portable battery manufacturers can set up and operate their own take-back system for used portable batteries (manufacturer take-back system).

Retailers (distributors offering comparable new batteries in their range) are categorically under obligation to take back used batteries from the end user at or in close proximity to the point of sale free of charge. The returned used portable batteries are made available for collection under the common collection system – or alternatively (under certain conditions), surrendered to the manufacturer take-back system – and recycled.

The consumers' responsibility primarily lies in utilising the separate collection system for used batteries. This is supported through the manufacturers' and distributors' labelling, information and reporting requirements. Moreover, a binding minimum collection rate applies to portable batteries (this includes a collection rate of

at least 45 percent no later than for the 2016 calendar year). The take-back system must achieve the legally required collection rate.

### **Are there other requirements, e.g. for the recycling of used batteries?**

Some of the other requirements aim to ensure that the recycling activity is of a high quality standard and environmentally compatible in terms of quality and quantity. This includes, e.g. requirements for the treatment and storage of used batteries, minimum targets for recycling efficiency, regulations on the calculation of recycling efficiencies of recycling procedures, and trading bans for certain batteries (stipulated Hg/Cd levels must not be exceeded). In contrast to the Electrical and Electronic Equipment Act (ElektroG), product stewardship for batteries generally requires the manufacturers and distributors to assume 'sole product stewardship'.<sup>5</sup> This means that public waste management authorities (örE) are generally under no obligation to participate in the collection of used batteries. The only regulated exception applies in connection with the collection of used electrical equipment by the örE.

Moreover, market transparency is created through a register for manufacturers, and system functioning is secured through various possibilities to sanction.

### **Examples from the Electrical and Electronic Equipment Act (ElektroG)**

#### **What obligations do manufacturers, retailers and consumers have in relation to used electrical equipment?**

Manufacturers are responsible for taking back used electrical equipment and disposing of them in an environmentally compatible manner. Consumers are under obligation to utilise the separate collection system for used electrical equipment. The public waste management authorities (örE) are responsible for the collection of used electrical equipment from private households (collected in different groups of used equipment). This collection is realised e.g. through municipal recycling centres.

The manufacturers must provide the municipalities with containers for the used equipment, collect these containers, and then ensure the equipment is recycled or treated in accordance with the statutory requirements. A 'joint body' established by the manufacturers calculates the percentage of used equipment to be collected by each manufacturer, as well as the even distribution of the duty to collect across all manufacturers in terms of time and location.

Retailers (distributors) with a retail space of 400 m<sup>2</sup> for electrical and electronic equipment, for instance, must take back very small used equipment (external equipment dimension of up to 25 cm) from private households. If a consumer purchases new equipment from a distributor, it must even take back one similar piece of equipment without limitation of equipment dimensions. Distributors can either recycle used equipment themselves or deliver it to the manufacturer or the örE. Private households incur no charges, whether they return the used equipment or drop it off at the örE.

#### **How is compliance with these requirements ensured? In your opinion, is there further need for improvement?**

In order to ensure that the actors under obligation perform their tasks, the Electrical and Electronic Equipment Act (ElektroG) contains measures, such as registration, disclosure and reporting obligations, as well as options for sanctions. Moreover, there are information and labelling obligations, minimum registration rates (targets), regulations and requirements for treatment/recycling, requirements for the proportion of material recovered, and the proportion prepared for reuse and recycling.

The power to issue statutory instruments – e.g. in relation to the requirements for the treatment of used electrical equipment including recovery and recycling – provide opportunities for further development. In the period from November 2015 until the summer of 2017, the German Federal Environment Agency developed recommendations for the treatment of used electrical equipment in an institutionalised process with extensive involvement and cooperation of around 200 actors from business and science, experts, environmental associations and authorities.<sup>6</sup>

## Examples from Packaging Ordinance

### What about manufacturers' and distributors' take-back obligations for packaging?

In relation to packaging, product stewardship was already put into practice with the Packaging Ordinance 25 years ago.<sup>7</sup> Manufacturers/distributors are generally under obligation to take back the packaging they have brought into circulation. They must then reuse or recycle the packaging. For retail packaging, manufacturers/distributors must participate in the 'dual system' to ensure that the retail packaging is taken back and recycled. The private waste management industry is then responsible for the specific tasks (through tenders). Used retail packaging is regularly collected from the private end consumer, using the 'yellow bag' or 'yellow bin'.

The compulsory returnable deposit for certain non-reusable beverage packaging aims to support reusable packaging systems while preventing uncontrolled disposal of packaging waste (littering).<sup>8</sup> The Packaging Ordinance also includes requirements for the recovery of retail packaging (recycling rates).

### What is the purpose of the take-back obligation for packaging? Where do you see further need for improvement?

In the first instance, it aims to ensure comprehensive return acceptance and high-quality recycling of packaging waste. Another important aspect is that the regulations of the Packaging Ordinance encourage manufacturers and distributors of packaging to include factors like disposal costs in their calculations, and effect measures to lower these costs, e.g. by reducing the amount of material used.<sup>9</sup>

The Packaging Act will replace the Packaging Ordinance with effect from 01 Jan. 2019. A key objective of this progression is to motivate manufacturers even more to design packaging that is easier to recycle. In the future, fees for participation in the systems will also take account of later recyclability. Participation fees will be lower for packaging that is easy to sort and recycle, and the use of recyclates will be taken into account as an assessment criterion for the fee level.<sup>10</sup>

In addition, material-specific recycling rates (which must be met by the systems) will be increased; the municipalities are given options for exercising influence and managing the collection arrangements for packaging waste (which will continue to be carried out by the systems); and the establishment of a central body aims to improve control options and ensure fair competition.

### Conclusion: So, we have a comprehensive system here in which all actors are held accountable?

The example of product stewardship and its arrangement illustrates that manufacturers, retailers, municipalities, disposal companies and citizens hold responsibility for a strong and efficient closed-loop economy. The performance of the specific tasks in relation to the product stewardship regulations is primarily ensured through registration, disclosure and reporting obligations, as well as options for sanctions for the economic operators. Citizens must be informed to be able to assume their share of the responsibility. To this end, the relevant guidelines impose information and labelling obligations on manufacturers and distributors.

Environmental requirements are realised e.g. through concrete specifications for the collection and treatment/recycling of end-of-life products. The power to issue statutory instruments – e.g. in relation to the requirements for the treatment of used electrical equipment including recovery and recycling – open up opportunities for further development. Concrete regulations that would strengthen/promote product durability (e.g. reparability) are not included in the regulations on product stewardship.

The retroactive effect of secondary costs on the production/design of product already anchored in the basic concept of product stewardship will be intensified with financial incentives as part of the participation fee assessment for retail packaging.

## Literatur

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<sup>1</sup> Comp. Landmann/Rohmer, *Umweltrecht (Environmental Law)*, 83rd ed. May 2017, Section 23 recital 1.

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<sup>2</sup> Wendenburg, Anforderungen an ein Wertstoffgesetz aus der Sicht des Bundes (Requirements of a law on reusable materials from the perspective of the Federal Government), in: Durner (pub.), *Auf dem Weg zum Wertstoffgesetz*, Umweltrechtstag Nordrhein-Westfalen 2013, 9 (15).

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<sup>3</sup> Bundestag Printed Paper 12/ 5672, 47.

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<sup>4</sup> Comp. Franzen/Grunow, *AbfallR* 2015, 102 (107).

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<sup>5</sup> Comp. Wendenburg/Seitel, *Abfallrecht (Waste Legislation)* 2009, 206 (214).

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<sup>6</sup> Flyer for the final symposium on the treatment of used electrical equipment, available in German at: <http://www.umweltbundesamt.de/abschlusssymposium-elektroaltgeraetebehandlung-3>.

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<sup>7</sup> Regulation on the Avoidance and Recovery of Packaging Waste (Packaging Ordinance – VerpackV) from 12 Jun. 1991, Federal Law Gazette I p. 1234.

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<sup>8</sup> see <https://www.umweltbundesamt.de/themen/abfall-ressourcen/produktverantwortung-in-der-abfallwirtschaft/verpackungen>.

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<sup>9</sup> Comp. Stroetmann, *Errungenschaften der Dualen Systeme (Achievements of the dual systems)*, in: Durner (pub.), *Auf dem Weg zum Wertstoffgesetz*, Umweltrechtstag Nordrhein-Westfalen 2013, 49 (51).

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<sup>10</sup> Bundestag Printed Paper 18/11274 (draft legislation), p. 50.

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