A framework for Member States to support business in improving its resource efficiency

An Analysis of support measures applied in the EU-28

*Measure synthesis*

Measures supporting extended producer responsibility (EPR) for materials/products
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A framework for Member States to support business in improving its resource efficiency

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Authors: Martin Hirschnitz-Garbers and Mandy Hinzmann (Ecologic Institute); Emma Watkins and Patrick ten Brink (IEEP), Leonidas Milios and Sebastien Soleille (BIO by deloitte)

With contributions by: Christian Hudson, Ana Frelih-Larson, Gerardo Anzaldua, Zoritza Kiresiewa (Ecologic Institute); Kristof Geraerts, Kamila Paquel, Andrea Illes (IEEP); Dana Huranova, Paula Marghiloman, Constance von Briskorn, Andreas Mitsios, Linas Tamutis, Natalja Saburova, Britt Marie Kutser (BIO by deloitte)

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**Consortium coordinator:**

Institute for Environmental Studies
Vrije Universiteit
De Boelelaan 1087
1081 HV AMSTERDAM
The Netherlands
Tel. ++31-20-5989 555
Fax. ++31-20-5989 553
E-mail: info@ivm.falw.vu.nl
Internet: http://www.vu.nl/ivm

**Project coordinator:**

Ecologic Institute
Pfalzburger Str. 43-44
10717 Berlin
Germany
Tel. ++49-30-86880 197
Fax. ++49-30-86880 100
E-mail: martin.hirschnitz-garbers@ecologic.eu
Internet: http://www.ecologic.eu/
Measures supporting extended producer responsibility (EPR) for materials and/or products

One of the aims of applying extended producer responsibility (EPR) to materials and products is to reduce the amount of waste generated and to encourage the use of specific types of waste as a resource/raw material. Together, waste regulation, EPR and other economic instruments can help to support more circular supply chains between the production and end-of-life phases of a product. Governments may, in some cases, take steps to offer additional, non-regulatory support for the application of EPR.

State measures supporting extended producer responsibility (EPR) for materials and/or products are widely used in 20 Member States (71%) and used a little in three Member States (11%, Ireland, Latvia and Slovenia) (see Figure 1). In five Member States (18%, Estonia, Malta, Poland, Portugal and the UK) there is no national policy in place for this support measure.

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<th>No national policy for this support measure in place</th>
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Figure 1: Scope of application of support measure 9 across the EU-28

This support measure has been widely used in by far the greatest number of respondents of all ten measures investigated across the EU-28. This finding is interesting in its own right, as it might reflect difficulties of the questionnaire design, i.e. the above text briefly explaining the scope of the measure. While the scope in this brief explanatory text was kept broad intentionally to allow Member State respondents to reflect on and add any relevant support measures in relation to EPR, it might not have been made explicit enough because the large majority of examples obtained refer to the national legislation transposing the relevant EU Directives laying down principles of EPR (the batteries, end-of-life vehicles, WEEE and also the packaging Directive). The fact that five Member States did not report any national policy in place might indicate that they indeed looked for additional measures beyond the existing national EPR schemes, related to the previously mentioned EU Directives.

At the same time, because of the legal obligation for transposition of the Directives into national law, every Member State does have EPR schemes in place for at least the four waste streams targeted by the above-mentioned Directives (see BIO et al. 2014) – and, therefore, information is more easily available. Although very helpful in the first place due to saving the respondents time in responding to the questionnaire, the pre-filling might also have kept the respondents’ focus too much on what was prefilled – and, hence, not providing additional examples. However, some Member States reported to have additional national EPR schemes in place, for instance Bulgaria for waste tyres and waste oils and Cyprus for waste tyres.
Altogether, this finding might also reflect that EPR is mostly fostered through regulation-based EPR schemes and that there are only few support measures beyond this that focus on businesses. In the section below on good practices, we provide interesting examples that make a direct link to businesses.

**Good practice examples**

In the following section, we provide selected good practice examples for this support measure from five different Member States (see Figure 2; the full list can be found in the separate Annex document): Belgium, Greece, Luxembourg and Hungary (each with wide use of this measure) as well as Ireland (with a little use of this measure).

The **Belgian “High Quality Recycled Granulates Policy”** aims to increase the quality of recycling and reuse of construction and demolition (C&D) waste, in particular the stony fraction of this waste. Generally, recycled aggregates were only used for low-grade applications (e.g. as embankments and foundations). By establishing a high and constant quality guarantee, the policy promotes the use of the recycled aggregates in higher-grade applications. Some elements of this policy have existed for about 25 years. Certificates for recycled granulates were introduced in the 1990s. In the following years the Flemish Waste Management Agency (OVAM) outlined the framework and objectives of the policy through the subsequent implementation of plans for the management of C&D waste. In recent years, diverse initiatives have been taken to guarantee the quality of recycled granulates, such as the introduction of unified rules for the management, recycling and testing of recycled granulates or the introduction of a mandatory demolition inventory for commercial buildings with a surface area bigger than 1,000 m². In April 2015, a new plan was launched to increase the recycling and reuse of the stony fraction even further and to significantly increase the recycling and reuse of non-stony fractions such as plaster and roof bitumen; decreasing the environmental and material impact of construction (OVAM 2015).

The policy targets the C&D industry in Flanders (as supplier of the materials) and the (road) construction industry (as user of the recycled granulates). Already in the first year (2011), a total of 12.6 million tonnes of recycled aggregates were certified according to the regulation. Currently 95% of the stony fraction of this type of waste is being recycled and reused as granulates in the road construction industry or for new applications in the construction industry. Almost 14 million tonnes of recycled and certified granulates originating from this waste have been produced in Flanders in 2013 and have been reintroduced into the materials cycle.

In **Greece**, in addition to the EPR schemes that are promoted by EU legislation through the provision of targets (i.e. packaging and packaging waste, end-of-life-vehicles, waste from electronic and electrical equipment and batteries), the Hellenic Recycling Agency has also developed schemes that cover the following waste streams:

- Waste Lubrication Oils (WLO)
- Used Vehicle Tires (UVT)
- Construction Demolition and Excavation Wastes (CDEW)

Respectively for WLO, UVT and CDEW, the schemes were launched in 2004, 2004 and 2010. As regards WLOs, the scheme covers 95% of the total number of producers and importers. Specifically, the scheme covers 50 producers of oil, 76 importers of oil and 44 importers of vehicles. There are 40 certified collectors with about 22,000 collection points.

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Figure 2: Good practice examples and scope of application for support measure 9 across EU-28
Another non-regulatory support measure for the application of EPR is the national initiative SuperDrecksKëscht® in Luxembourg, which targets resource efficient waste management and EPR. SuperDrecksKëscht® is a brand under which the Ministry of Sustainable Development and Infrastructure leads different actions in the frame of the national waste management. The initiative started as early as in 1985 and its main objective is to use and implement the latest know-how, in order to realise the most effective sustainable resource management in the ecological and economic sense. All relevant stakeholders are targeted: administrations and, in particular, municipalities, the private sector, the general public (consumers, children, schools etc.) (SuperDrecksKëscht 2015). For businesses, the initiative offers to jointly set up a waste management concept, based on company-specific requirements. The concepts include waste prevention and separate waste collection – both usually leading to economic benefits. Experts, who can give practical advice, supervise the implementation of the waste management concepts. As an additional incentive, companies that have implemented the waste management concepts in their daily business routine are allowed to carry the quality label “SuperDrecksKëscht® fir Betriber,” which is certified in accordance with the internationally accepted ISO 14024:2000 standard².

Hungary follows a different approach: EPR is prompted through an environmental product fee,³ which is applied to a wide range of products including batteries, packaging materials, electrical and electronic equipment, tyres, plastic bags, plastics and office paper. The taxable entity depends on the product in question, but can include users, buyers, distributors and manufacturers. Introduced in 1996, the fee is designed to limit external impacts on the environment caused by the production and marketing of the targeted products. Its main objective is to prevent pollution caused by these products and to efficiently manage natural resources. Therefore, the environmental product fee considers the polluting potential of the different products. For instance, for packaging materials that are less harmful to the natural environment than others, a lower environmental product fee is applied.

An interesting example for a non-regulatory support measure for the application of EPR is the “Prevent and Save” initiative in Ireland, led by Repak, an industry-funded organisation whose aim it is to facilitate and increase packaging recycling. A central part of the “Prevent and Save” initiative is the provision of free packaging surveys to Repak member companies. The survey is conducted by a packaging technologist, and based on it, a confidential report is compiled and submitted to the member company with recommendations outlining the main target areas for packaging optimisation⁴. Considerable achievements have been made by means of the initiative (EPA 2015):

- In 2013, approx. 88,000 tonnes of packaging have been prevented by Repak’s members.
- In the period between 2005 and 2013, in each successive year on average an additional 11,000 tonnes of prevented packaging have been achieved.
- In total, approx. 520,000 tonnes of packaging have been prevented between 2005 and 2013.
- Cost savings of member companies related to decreased purchases of packaging materials amount to approx. 213 million EUR between 2006 and 2013.
- In addition, supply chain savings⁵ during this period amounted to approx. 93 million EUR.

Lessons learnt from the application of the support measure

From the application of this support measure in the above five Member States, the following lessons learnt could be derived.

The approach in Flanders (Belgium) was very effective, because it was combined with another governmental action: the creation of a market for recycled materials through product specifications, standards and regulation. In addition, the government introduced several economic incentives, such as higher rates for dumping debris at landfills, and imposed several restrictions on the dumping of unsorted

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³ Legal obligation regulated by the LXXXV. Act of 2011.
⁵ Savings made in logistics, production and fees by avoiding the requirement for packaging.
construction and demolition waste. These measures all focused on optimising recycling rates to lower the pressure on natural resources, while the management system and regulations ensured high quality recycled materials. Further success factors were the experience and expertise of the OVAM and the involvement of the C&D sector in setting up the policy.⁶

In Greece, the collection of waste lubricant oils (WLOs) increased from 34,000 tonnes in 2004 (40.4% of production) to 39,000 tonnes in 2008 (67.1% of production) and then gradually dropped to 23,000 tonnes in 2012 (44.7% of production). In addition, the collection of used vehicle tyres (UVTs) increased from around 27,000 tonnes in 2004, to 52,000 tonnes in 2008 and then dropped to 31,000 tonnes in 2012. For the same years the recovery rates (thermal recovery, recycling, export or reuse) respectively were 20,000, 52,000 and 31,000 tonnes. The decrease of the collection of WLOs and UVTs after 2008 (in terms of absolute amounts and on the case of WLOs also in terms of collection rates) indicates that the economic downturn in the country might have a significant effect, both in terms of amounts of waste collected and collection rates. However the magnitude of this effect is uncertain.

Regarding its specific offer for businesses, the strength of the SuperDrecksKëscht® initiative in Luxembourg is its provision of practical advice and monitoring on site. Advisors support companies by regular visits and training for their staff. The programme is considered highly successful in light of its clear focus, innovative design, replicability, representativeness and effectiveness.

Hungary’s environmental product fee is perceived as an effective environmental management tool, which has favourable effects on domestic waste management processes. The regulatory advantage of this tool is its ability to stimulate the manufacture and marketing of environmentally favourable products and to restrict environmentally undesirable products. The generated revenue provides funding for the State in order to achieve EU targets related to recovery, and it supports the development of domestic waste recovery. Since the introduction of the environmental product fee, numerous changes have been made to the legislation on the fee, e.g. concerning liabilities related to packaging. The most recent changes were made in 2015, when the fee was extended to additional products, including soaps, washing powders and cosmetic products. Furthermore, the recent changes introduced six new ‘pollution categories’ according to the degree of the pollution of the specific products. The main aim of these changes was to create a more transparent and simplistic system, which would reduce administrative burdens.

The “Prevent and Save” initiative in Ireland has been a very effective programme, as evidenced by the amount of packaging saved. Quite often, the packaging surveys, and in particular the confidential report compiled and sent to member companies with recommendations outlining the main target areas for packaging optimisation, lead to a reduction in procurement costs combined with a reduction in Producer Responsibility fees after the recommendations were implemented. This indicates that one of the incentives for reduction comes from the fee structure in the Producer Responsibility Organisation.

In addition, further lessons learnt emerged from the information obtained for the other Member States where this support measure is being applied:

Latvia uses tax exemption incentives in order to promote extended responsibility of producers and importers. Companies engaged in the manufacture, import or trade of vehicles, hazardous goods (including electrical appliances) and packaging receive an exemption from payment of the natural resources tax if they have established and apply a waste management system. The objective of this measure is to promote the efficient and economic use of natural resources, limit environmental pollution, as well as promote new and environmentally friendly technologies. The system’s advantage lies in the fact that the waste manager, upon receiving an exemption from payment of the natural resources tax, has the obligation to collect and recover a certain amount of environmentally hazardous products, vehicles and packaging put on the market after their use. By applying these principles, waste separation is promoted and the number of separate collection points is increased.

In Romania, the pioneer organisation “Eco-Rom Ambalaje” was established in 2003 to develop an Integrated Management System and implement and monitor the objectives of the Romanian packaging waste legislation. It had started with 81 member companies in 2004 and recorded 2,849 members by late 2013. The organization provides prevention plans for generated waste which are free of charge for companies and offers technical guides for waste prevention on its website. The organisation successfully implemented the Green Dot Scheme in Romania and induced investments of its member companies in waste collection & sorting, and in the separate collection infrastructure. One important factor for its success is that the activities of the organisation are based on partnerships with producers of packaged goods, waste collectors and recyclers, as well as with local authorities and citizens. Additionally, the organisation assumed responsibility to inform the population about the importance of separate collection of waste packaging. ECO-Rom provides an interface between public interest and industry and moderates dialogue between its clients. Among other initiatives, educational programmes were launched in primary schools (Green Recycling Laboratory and ECOlimpiada). Nationwide, 9 million inhabitants have access to Eco-Rom recycling solutions. The Eco-Rom initiatives have been successful: the collection of packaging waste improved from 800 tons in 2006 to approximately 40,000 tons in 2013. Moreover, by 2014 (i.e. ten years after Eco-Rom Ambalaje started operating) about 2.6 million tons of packaging waste have been recycled by the organization. This is estimated to correspond to savings of 5.2 million tons of natural resources (crude oil, wood, feldspar, sand bauxite and iron ore). Stakeholder engagement and targeted communication with citizens have proven to be success factors of the measure.

The German packaging waste scheme makes producers responsible to take back and care for the treatment of packaging that ends up in private households. Businesses are obliged to participate in one of several authorised waste management and recycling systems (‘dual system’), i.e. they pay a Producer Responsibility Organisation for the collection, sorting and treatment of their packaging. To make the producers pay for collection, sorting and treatment of their packaging gives companies an incentive to reduce their packaging material. In the German system, a reduction of costs was achieved through competitive tendering. A success factor for the system is the high degree of separation of waste by the consumers, which was promoted through information campaigns.

Similarly, when waste separation was introduced in Lithuania, the state’s support for circular supply chains included information campaigns. The Lithuanian “Product or Packaging Waste Management Programme” supports EPR schemes, while at the same time educating society and municipal employees in waste management system creation and maintenance. Launched in 2004, the programme aims to reduce the environmental impacts of electronic equipment waste, taxable products and packaging waste by subsidising the creation and maintenance of waste managing systems. It is designed to assist private entities and municipalities nationwide. Financial support derives from the Lithuanian Environmental Investment Fund. The programme has financed several projects aiming to reduce electronic equipment, taxable products and packaging waste as well as to use waste as a resource. It has contributed in improving the overall waste management in Lithuania, reportedly increasing the reuse, recycling and recovery rate of waste in Lithuania, reaching up to 35% in 2013. The

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7 Two possibilities were given to Romanian companies who place household packaging on the market: be part of the Integrated Management System or have their own waste management system.


11 One example for a project financed by the Product or Packaging Waste Management Programme is the ‘Plastic products from granulate, regranulate and plastic waste production’ project. With this project the capacity of plastic packaging recycling was increased in Lithuania, while saving a significant amount of new raw materials for avoided/reduced plastic production.
programme period 2004-2013 was deemed successful by Lithuanian authorities, which prompted the continuation of financial support for the following years up to 2020.

In Austria, the long history of the battery collection scheme, which started in 1990 as a voluntary system, helped setting up appropriate collection systems and routines. Additionally, the battery scheme and the WEEE EPR scheme are strongly interlinked so that the collection of waste batteries and accumulators from WEEE is improved (BIO et al. 2014).

With the EPR scheme for WEEE in Sweden, public authorities are responsible for the collection points (such as recycling centres). The system is convenient for households, who can return the WEEE without charge at the same collection points as other waste. After safe treatment in the recycling stations, recycled parts are turned back to the producers (Elretur n.d.).

Going beyond EU-legislation, producers of paper products in Finland are responsible for the collection and recycling of waste paper. They arrange free-of-charge transport for discarded paper products from collection facilities. In Slovakia, several EPR schemes were set up: for WEEE in 2004, for end-of-life vehicles in 2002, for batteries and accumulators in 2014 and for packaging material in 2002 (amended through Waste Law Nr. 223/2001, entering into force in 2014). The main issue for the packaging EPR is to improve selective collection in the whole territory. Before the new law, producers could fulfil the targets by recycling packaging inside the business. Since the 2014 waste law, they have to fulfil targets set for recycling of household packaging. Hence, the introduction of EPR puts pressures on the recycling sector to build up new capacities and technologies in all sectors.

Under the Dutch National Waste Management Plan (Landelijk Afvalstoffen Plan LAP) EPR has extensively been regulated for separate collection of certain household wastes in order to promote the closing of circles in transition to a circular economy. Launched in December 2014, household and municipal wastes are targeted under EPR. This plan is in effect nation-wide. A budget of 2 million EUR for the year 2015 was earmarked to promote the circular economy through assisting and fostering EPR schemes, inter alia through the capacity building measure RACE (see section Error! Reference source not found.) – hence, EPR is part of the approach, but not the main part. The ambition is to reduce the amount of non-separated household waste from 250 kg per capita to 100 kg per capita in 2020. The Dutch waste and recycling industry is cooperating in an additional program focussed on more & better recycling (www.vang-hha.nl). Cooperation and capabilities of the local government, the motivation of citizens to help with collecting wastes separately and the cooperation of value-chain stakeholders were identified as specific factors for success.

In general, Member State responses often focused on factors which improve waste management and increase collected wastes through EPR, e.g. through establishing a wide net of collection points to be easily reached by consumers, or by designing the system in a cost-effective way (see also BIO et al. 2014). While these aspects can help foster a circular economy by providing companies with recycled waste that can be used as resources, often a direct link to resource efficiency increases in businesses is missing in the schemes (e.g. an incentive for companies to actually reuse the recycled waste). Therefore, we focused on success factors for measures that link EPR and resource efficiency improvements as well as circular economy approaches in companies.
Across the examples obtained from literature review and Member State responses, the following aspects could be identified as key success factors for measures supporting extended producer responsibility (EPR) for materials and/or products.

- Incorporating incentives for companies to reduce waste generation and to use recycled materials – such as economic incentives (e.g. through the fee structure, higher rates for dumping debris at landfills, exemptions from environmental tax) or legislative restrictions (e.g. for dumping of unsorted wastes).
- Explicitly adopting as an objective of the initiative or scheme the reduction of resource use, waste generation and/or the use of waste as a resource.
- Involving targeted sectors in establishing the policy.
- Accompanying measures to establish a market for recycled materials, e.g. through product specifications, standards and regulation.
- Providing practical advice, preferably direct, and on-site and tailored to the needs of different company sizes and sectors.
- Promoting transparency and simplicity of the system, low administrative burden for companies.
- Ensuring, where possible, confidentiality of information provided by the companies.
- Interlinking schemes.
- Designing accompanying information campaigns for consumers and offering possibilities for communication between consumers and producers/waste managers.

References used


