



RESOURCE EFFICIENCY AND THE CIRCULAR ECONOMY

Past and current patterns of resource use have led to high pollution levels, environmental degradation and the depletion of natural resources. EU waste policy has traditionally focused on environmentally sustainable waste management. The Roadmap to a Resource Efficient Europe and the Circular Economy Package aim to transform the EU's economy into a sustainable one by 2050. Under the European Green Deal, the Circular Economy Action Plan provides a future-oriented agenda for a cleaner and more competitive EU.

LEGAL BASIS

Articles 191-193 of the Treaty on the Functioning of the European Union (TFEU).

OBJECTIVES AND ACHIEVEMENTS

All products have a natural basis. The EU's economy is highly dependent on natural resources. If current patterns of consumption and production are maintained, the degradation and depletion of natural resources will continue, as will waste generation. The scale of our current resource use is such that it is jeopardising the chances of future generations – and developing countries – of having access to their fair share of scarce resources. Rational utilisation of natural resources was one of the earliest environmental concerns underpinning the first European Treaties. The [Roadmap to a Resource Efficient Europe](#) was among the key initiatives of the 7th Environment Action Programme (EAP). One of its main objectives was to unlock the EU's economic potential so that it could be more productive while using fewer resources and moving towards a circular economy. Moreover, the recent [Circular Economy Package](#) includes measures that will help to stimulate the EU's transition towards a circular economy through greater recycling and reuse, in addition to boosting global competitiveness, fostering sustainable economic growth and generating new jobs.

A. Resource efficiency

The Roadmap to a Resource Efficient Europe was part of the resource efficiency flagship initiative of the Europe 2020 strategy. It supported the shift towards sustainable growth via a resource-efficient, low-carbon economy. The roadmap took into account the progress made on the 2005 [thematic strategy on the sustainable use of natural resources](#) and the [EU sustainable development strategy](#), and set out a framework for the design and implementation of future action. It also outlined the structural and technological changes needed by 2050, including milestones to be reached by 2020. It



proposed ways to increase resource productivity and decouple economic growth from resource use and its environmental impact.

B. Waste management and prevention

[The Waste Framework Directive](#) followed on from the [thematic strategy on the prevention and recycling of waste](#). It aimed to reform and simplify EU policy by introducing a new framework and setting new targets, with a focus on prevention. In July 2023, the Commission introduced a [proposal](#) to amend the Waste Framework Directive, with the intention of shifting the responsibility for the entire life cycle of textile products to manufacturers. This initiative aims to encourage the sustainable handling of textile waste.

The [Waste Shipment Regulation \(\(EC\) No 1013/2006\)](#) laid down rules for waste shipments both within the EU and between the EU and non-EU countries, with the specific aim of improving environmental protection. It covered the shipment of practically all types of waste (with the exception of radioactive material) by road, rail, sea and air. However, illegal waste shipments have remained a serious problem; the new Regulation ([\(EU\) No 660/2014](#)) strengthened the inspection provisions of the previous legislation, with more stringent requirements for national inspections and planning.

C. Production- and waste-stream-specific laws

[Directive 2000/53/EC](#) aimed to reduce waste from end-of-life vehicles (ELVs) and their components, for example by increasing the rate of reuse and recovery to 95% by 2015, and the rate of reuse and recycling to at least 85%. It also encouraged manufacturers and importers to limit the use of hazardous substances and to develop the integration of recycled materials. In 2017, the majority of Member States had met their 2015 target rate of 85% reuse and recycling based on an average weight per vehicle and year. In 2021, a public consultation was held on the revision of the directive. [Directive 2000/53/EC](#) was amended by Directive [\(EU\) 2018/849](#) which empowers the Commission to enforce ELV compliance, exempt materials, set coding standards and establish treatment requirements. The Ship Recycling Regulation ([\(EU\) No 1257/2013](#)) entered into force on 30 December 2013. Its main objective was to prevent, reduce and eliminate accidents, injuries and other adverse effects on human health and the environment resulting from the recycling and treatment of EU ships, in particular with a view to ensuring that hazardous waste from such ship recycling is subject to environmentally sound management. The regulation set out a number of requirements for EU ships, EU ship-owners, ship recycling facilities willing to recycle EU ships, and the relevant competent authorities or administrations.

Directive 2002/96/EC, as amended by [Directive 2012/19/EU](#) aimed to protect soil, water and air through better and reduced disposal of waste electrical and electronic equipment (WEEE). Directive 2002/95/EC, repealed by [Directive 2011/65/EU](#), on the restriction of the use of certain hazardous substances in electrical and electronic equipment (RoHS), adopted in parallel to the WEEE Directive, aimed to protect the environment and human health by restricting the use of lead, mercury, cadmium, chromium and brominated flame retardants in such equipment. The implementation of the WEEE and RoHS Directives in the Member States proved difficult, with only one third of all electrical and electronic waste being collected and properly treated.



These two directives, together with [Directive 2012/18/EU](#), required the Member States to increase the amount of e-waste they collect and to allow consumers to return appliances to any shop selling small electrical goods, without having to purchase new ones.

[Directive 2006/66/EC](#) on batteries and accumulators and waste batteries and accumulators aimed to improve the waste management and environmental performance of such items by establishing rules for their collection, recycling, treatment and disposal. The directive also set limit values for certain hazardous substances (in particular mercury and cadmium) in batteries and accumulators. [Amending Directive 2013/56/EU](#) removed the exemption for button cells with a mercury content of no more than 2% by weight.

In accordance with Council Directive 96/29/Euratom on radioactive waste and substances, repealed by [Council Directive 2013/59/Euratom](#), each Member State had to make it compulsory to report activities that involve a hazard arising from ionising radiation. Shipments of radioactive waste are covered by [Council Regulation \(Euratom\) No 1493/93](#) and [Council Directive 2006/117/Euratom](#).

[Directive 94/62/EC](#) covered all packaging placed on the EU market and all packaging waste, whether it is used or released at industrial, commercial, office, shop, service, household or any other level. [Amending Directive 2004/12/EC](#) established criteria and clarified the definition of 'packaging'. Moreover, [Directive \(EU\) 2015/720](#) amended Directive 94/62/EC as regards reducing the consumption of lightweight plastic carrier bags, which easily escape waste management streams and accumulate in our environment, especially in the form of marine litter. The directive sets out to drastically cut the consumption of lightweight plastic bags, by focusing on all plastic carrier bags that are thinner than 50 microns.

The Directive on the management of waste from extractive industries (the Mining Waste Directive, [2006/21/EC](#)) sought to tackle the significant environmental and health risks associated with the volume and pollution potential of current and historical mining waste.

D. Waste treatment and disposal

The progressive implementation of the Urban Waste Water Treatment Directive ([91/271/EEC](#)) in all the Member States increased the quantities of sewage sludge requiring disposal.

The Landfill Directive ([1999/31/EC](#)) intended to prevent or reduce the adverse effects of landfill on the environment, in particular on surface water, groundwater, soil and air, as well as on human health. Implementation has remained unsatisfactory, as not all of the provisions have been transposed in all the Member States and a large number of illegal landfills still exist. Amending [Directive \(EU\) 2018/850](#) limits landfill for recyclable waste, sets new targets and enforces controls.

Directive 2000/76/EC on the incineration of waste aimed to prevent or reduce, as far as possible, air, water and soil pollution caused by the incineration or co-incineration of waste. As of November 2010, it was repealed and replaced by [Directive 2010/75/EU](#) on industrial emissions and related directives.



E. The 2018 Circular Economy Package

In December 2015, the Commission presented an action plan on the circular economy, as well as four legislative proposals amending the following legal acts: (a) the Waste Framework Directive; (b) the Landfill Directive; (c) the Packaging and Packaging Waste Directive; and (d) the directives on ELVs, on batteries and accumulators and waste batteries and accumulators, and on WEEE. Some of these proposals were prompted by legal obligations to review waste management targets. The Waste Framework Directive required the Commission to take the following measures by the end of 2014: review the 2020 targets on the reuse and recycling of household waste and on construction and demolition waste, set waste prevention objectives for 2020, and assess a number of measures, including extended producer responsibility schemes. The Landfill Directive required the Commission to review targets set therein by July 2014 and the Packaging Directive by the end of 2012.

Adopted in May, the four directives ([\(EU\) 2018/849](#), [\(EU\) 2018/850](#), [\(EU\) 2018/851](#) and [\(EU\) 2018/852](#)) incorporate among others the following key elements:

- A common EU target to recycle 65% of municipal waste by 2035 (55% by 2025 and 60% by 2030);
- A common EU target to recycle 70% of packaging waste by 2030;
- A binding landfill target to reduce landfill to a maximum of 10% of municipal waste by 2035;
- A ban on the landfilling of separately collected waste, requiring separate collection for bio-waste by 2023 and for textiles and hazardous waste from households by 2025.

F. Plastics in the circular economy

On 16 January 2018, the Commission published a communication laying out a [strategy for plastics in a circular economy](#). The strategy identifies key challenges, including the low reuse and recycling rates of plastic waste, the greenhouse gas emissions associated with plastics production and incineration, and the presence of plastic waste in oceans. The Commission proposes that all plastic packaging should be designed to be recyclable or reusable by 2030. With a view to moving towards this target, the strategy presents a wide range of measures focusing on four areas: (1) improving the economics and quality of plastics recycling; (2) curbing plastic waste littering; (3) driving investment and innovation in the plastics value chain; and (4) harnessing global action.

As part of the plastics strategy to tackle wasteful and damaging plastic litter through legislative action and following a Commission proposal of 28 May 2018, the Council and Parliament agreed to reduce plastic pollution by setting tough new restrictions on certain single-use plastic products. ([Directive \(EU\) 2019/904](#)). Products banned in the EU include plastic cutlery (forks, knives, spoons and chopsticks), plastic plates and straws, food and beverage containers made of expanded polystyrene and cotton bud sticks made of plastic. From 2025 onwards, the Member States will have the binding target for all PET beverage bottles to contain at least 25% recycled plastic. By 2030, all plastic bottles will have to contain at least 30% recycled content.



G. The new Circular Economy Action Plan under the European Green Deal

The [new Circular Economy Action Plan](#) for a cleaner and more competitive Europe was published on 11 March 2020 and is one of the cornerstones of the European Green Deal, the EU's new agenda for sustainable growth. It announced initiatives along the entire life cycle of products, targeting, for example, their design, promoting circular economy processes, fostering sustainable consumption, and aiming to ensure that the resources used are kept in the EU economy for as long as possible.

The European Parliament and the Council adopted the new [Batteries Regulation](#) on 12 July 2023. This will minimise the environmental impact of the battery sector as it undergoes exponential growth in a context of new socioeconomic conditions, technological developments, markets, and battery usages. On 17 November 2021, the Commission adopted a [proposal on waste shipments](#), proposing stronger rules on waste exports, a more efficient system for the circulation of waste as a resource, and concrete action against waste trafficking. Waste shipments to OECD countries will be monitored and can be suspended if they generate serious environmental problems in the country of destination. Waste exports to non-OECD countries will be restricted and only allowed if those countries are able to manage them sustainably.

On 30 November 2022, the Commission [proposed to revise](#) the Packaging and Packaging Waste Directive with the goal of guaranteeing that packaging available in the EU can be reused or recycled in a financially sustainable manner by 2030. It also adopted the [communication on a policy framework on bio-based, biodegradable and compostable plastics](#).

European consumption of textiles has the fourth highest impact on the environment and climate change – after food, housing and mobility. On 30 March 2023, the Commission published the [EU strategy for sustainable and circular textiles](#). This strategy sets out concrete actions to ensure that by 2030, textile products placed on the EU market are sustainable and recyclable, free of hazardous substances and that they respect social rights and the environment.

ROLE OF THE EUROPEAN PARLIAMENT

Parliament has repeatedly called for a new agenda for future European growth with resource efficiency at its core, which would require some radical changes in our production and consumption patterns. Total life-cycle thinking should improve the use of secondary materials and create the right economic incentives for avoiding and reusing waste.

Following the Commission's strategy for plastics in a circular economy of January 2018, Parliament adopted [a resolution on this strategy in September 2018](#). The resolution urged the Commission, among other things, to consider introducing requirements for minimum recycled content for specific plastic products placed on the EU market. It advocated creating a genuine single market for recycled plastics, proposed measures to tackle marine litter, and requested a ban on microplastics in cosmetics and cleaning products by 2020. Parliament debated the 2018 Circular Economy package in the



Committee on the Environment, Public Health and Food Safety (ENVI), tabling 2 000 amendments.

Parliament's [resolution of 15 January 2020 on the European Green Deal](#) called for an ambitious new circular economy action plan, with the aim of reducing the total environmental and resource footprint of EU production and consumption while providing strong incentives for innovation, sustainable business and markets for climate-neutral and non-toxic circular products. It highlighted the strong synergies between climate action and the circular economy, in particular in energy- and carbon-intensive industries and called for the establishment of an EU-level target for resource efficiency.

On 17 January 2023, Parliament adopted its negotiating position for talks with EU governments on a [new law to revise EU procedures and control measures for waste shipments](#). The revised legislation should better protect the environment and human health, while taking full advantage of the opportunities provided by waste to achieve the EU's goal of a circular and zero-pollution economy. Parliament called for the creation of an EU risk-based targeting mechanism to guide EU countries that carry out inspections to prevent and detect illegal shipments of waste.

For more information on this topic, please visit the Committee on the Environment, Public Health and Food Safety's [website](#).

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10/2023

