An Initiative of the German Federal Ministry of Education and Research

Plastics in the Environment

EU Single-Use Plastics Directive Contents, deficits and development requirements

	<u>D</u> isposable <u>c</u> utlery	DC
	<u>D</u> isposable <u>p</u> lates	DP
	$\underline{B} \texttt{everage} \ \underline{\textbf{c}} \texttt{ups} \texttt{ and } \underline{\textbf{c}} \texttt{ontainers}$	BC
	<u>B</u> everage <u>b</u> ottles	BB
	<u>D</u> rinking <u>s</u> traws	DS
	To-go <u>f</u> ood <u>c</u> ontainers	FC
	<u>S</u> tirrers	S
	<u>Wr</u> appers	WR
	<u>S</u> anitary <u>p</u> ads	SP
	<u>W</u> et <u>w</u> ipes	ww
	Tampons and applicators	0
	<u>C</u> otton <u>s</u> wabs	CS
	<u>F</u> ishing g ear	FG
	<u>B</u> alloons	B
	Light plastic carrier <u>b</u> ags	B
	<u>B</u> alloon <u>s</u> ticks	BS
	<u>C</u> igarette <u>f</u> ilters	CF

These plastic products are covered by the Single-Use Plastics Directive. Graphic: © Maria Daskalkis

> "A comprehensive and coordinated legal framework is urgently needed to reduce plastic pollution." InRePlast Team

An increasing amount of plastics is polluting the environment and posing risks to humans and animals. As a countermeasure, the European Union adopted the Single-Use Plastic Directive in 2019, which must be implemented by member states. However, due to its narrow scope, it is already clear that the directive will not suffice to stop or even significantly minimize plastic pollution. Instead, more comprehensive regulation is needed.

Contents of the Single-Use Plastics Directive

The directive only targets a small number of products for everyday use. It includes these products because they were the most frequently found during waste counts on European seashores. In order to prevent these products from entering the oceans, the Single-Use Plastics Directive stipulates various measures and instruments: Extended producer responsibility as well as bans and requirements address specific products and apply to the plastics processing industry and trade. Education, awareness-raising, labeling and separate collection are intended to encourage consumers¹ in particular to reduce inputs.

Addressed products
FC BC BB CS WW FG B LB CF
BC BB FC WR SP WW T FG B LB CF
BC SP WW T CF
BB
BC FC
BB
DC DP BC* DS FC* S CS BS

* made of expanded polystyrene; the directive also includes a general ban on oxo-degradable plastics

Measures foreseen by the Single-Use Plastics Directive for certain products. Graphic: © Maria Daskalakis

1 The guideline also addresses fishing with regard to fishing nets. Note that this is not explicitly covered in this fact sheet.

Too few products and players

Limited impact of the instruments



Far too few products are included The selection of products for the Single-Use Plastics Directive was based on the quantities of prod-

ucts found on seashores. In terms of mass, other products may be much more relevant. Few plastic-containing products, however, remain intact during the long journey from the point of entry to the beaches. More often, it is plastic particles and not whole products that are released into the environment. The range of products that enter the environment is therefore not fully known and is much larger than previously assumed.

The oceans therefore contain countless plastic particles both in the water and on the seabed. All other types of water are likewise contaminated with plastic, and particles are also found in the air and in soils. It is therefore not enough to only regulate the plastic products found on ocean beaches.

This has been confirmed by research: For instance, the InRePlast project found about 160 different plastic products and plastic packaging in wastewater, in addition to countless indeterminable particles over 1mm in size. These were products of daily use and their packaging as well as building materials and other production materials, including plastic pellets, which serve as the basis for plastic products. Fibers and parts of these products can be discharged directly into the environment via wastewater treatment plants, as well as into fields via the spreading of compostable solids, and directly into bodies of water via storm drains and during heavy rainfall events. Education, awareness and labeling The Single-Use Plastics Directive aims to reduce pollution for the few products it addresses by means of information and education. However, as research and practice show, such instruments only have a limited effect. This is due to the fact that people cannot or do not want to absorb and react to information in the way that legislators ideally envi-sion. In addition, packaging is often already full of information, making labeling easy to overlook. As a result, only a low level of effectiveness can be expected from these informational instruments of the directive.



Extended producer responsibility

According to the Single-Use Plastics Directive, manufacturers of plastic products should contribute

to the costs of cleaning and education. However, plastic is widely distributed in water, soil and air. The possibility of large-scale cleaning does not exist. Consequently, extended producer responsibility, which is already limited to the few products listed in the directive, will only achieve a low level of effectiveness.



Separate collection quota

A quota for separate collection combined with a mandatory deposit may be effective against improper

disposal of products, provided the deposit is high enough. It is, however, ineffective against undetected and/or small-scale contamination. Introducing a quota for all relevant products would also be very costly and not feasible for hygiene products. In this respect, the use and effect of this instrument is limited.



Many different actors introduce plastics into the environment The directive almost exclusively

addresses consumers as the source

of pollution. Plastics, however, are not only released into the environment through private but also through commercial activities. For example, many of the 160 plastic products found in the InRePlast project can be attributed to plastic manufacturers and processors as well as to the construction industry.

Inputs can be caused by improper disposal, inattention or lack of disposal facilities. In addition, particles can become detached unnoticed during the use of plastic products. Examples of the latter are mesh nets for produce, packaging, car tires, lawn trimmer strings, and artificial turf. In this respect, every person who uses plastic products for private or professional purposes can knowingly or unknowingly contribute to plastic pollution. The focus of the Single-Use Plastics Directive on the consumer is therefore far too narrow.



Bans and requirements

Two instruments that have proven to be effective are bans on plastic products and product design re-

quirements. This gets to the root of the problem and fundamentally prevents plastic pollution – regardless of whether the pollution is caused by private or professional actions and whether it is intentional or unintentional.

The Single-Use Plastics Directive, however, only bans seven products, three of which are limited to a specific type of plastic. Only one product is subject to a requirement. In view of the large number of different products and plastic particles that pollute the environment and endanger humans and animals, this is insufficient.

Icons: © pixabay.com



Recommendations for expanding the Single-Use Plastics Directive under the umbrella of a comprehensive plastics strategy Graphic: © Maria Daskalakis

Research on the prevention of plastics entering wastewater

The interdisciplinary project "Environmental Policy Instruments to Reduce Plastic Pollution of Inland Waters via Drainage Systems" examines and classifies the occurrence of plastic pieces of at least 1 mm in size in wastewater treatment plants and street drainage systems in the municipalities of Aachen, Roetgen, Simmerath and Stollberg. Surveys and a laboratory experiment support the analyses. Based on these findings, proposals for environmental policy instruments to prevent these plastic waste inputs are being developed.

The Single-Use Plastics Directive must be revised thoroughly and comprehensively

An effective stop to the mass input of plastic into the envi-ronment can only be achieved if legislation ensures that the quantity of single-use plastic products and packaging is very significantly reduced through bans. Consequently, a revision of the Single-Use Plastics Directive must be carried out in two main respects: Firstly, the scope of the directive must be significantly extended beyond the currently listed products and, secondly, it must primarily address the manufacturers of products and not the consumers.

Durable, reusable and plastic-free alternatives already exist for many products and packaging, and many more can be developed in the near future. In the case of new developments, it is advisable to introduce subsidies for innovation to accompany the bans. Life cycle analyses are required to ensure that the product and packaging alternatives do not cause environmental problems themselves. Addressing the target group appropriately should ensure acceptance of the measures. In addition, the avoidance of unnecessary products can be encouraged. Certain products and packaging, for instance in the field of medicine, cannot do without (single-use) plastics even in the medium term. For these products, extended producer responsibility must be strengthened and geared toward avoiding plastic waste.

A holistic approach is necessary!

However, a realignment and expansion of the Single-Use Plastics Directive alone will hardly reduce the extensive plastic inputs into the environment. What is needed instead is comprehensive prevention of the plastic input. The European Union must therefore abandon its product-based, primarily consumer-oriented approach and take a holistic approach to preventing plastic discharges. For this purpose, the EU must revise and broaden its plastics strategy and adapt the legal framework accordingly.

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Authors

Maria Daskalakis*, Simon Kaser**, Anja Hentschel**, Marco Breitbarth*

Institution

University of Kassel, Working Group Environmental Policy*, Darmstadt University of Applied Sciences, Department of Environmental and Energy Law**

Contact

daskalakis@uni-kassel.de

Design Noreen Matthes, Ecologic Institute; Tanja Dohr, FiW Aachen

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