
CDP Technical Note - Plastics disclosure

CDP Corporate Questionnaire



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About this Technical Note

This document introduces CDP's approach to Plastics disclosure, including its alignment to the Ellen MacArthur Foundation's [Global Commitment](#). The Plastics module also builds upon additional standards and frameworks including ESRS, GRI, TNFD and WWF ReSource Tracker.

Version

Version	Revision Date	Revision Summary
1.0	Feb 2023	
2.0	April 2023	Added definition of plastics as FAQ 1
3.0	June 2024	Added technical FAQs on end-of-life management. Added definitions of the updated and new activities including 'Usage of durable plastics goods and/or components (including mixed materials)'.

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1. Introduction

Plastic pollution and waste harms our ecosystems, economies, and communities. It threatens the function of the world's terrestrial, ocean and freshwater ecosystems, which serve as sanctuaries for biodiversity, vital food sources and major carbon sinks. Less than 10% of plastic gets recycled annually, and if growth in single-use plastic production continues at current rates, by 2050, they could comprise of approximately 5-10% global greenhouse gas emissions ([UNEP, 2021](#)) ([Minderoo Foundation, 2021](#)). However, the 'take-make-waste' model of plastic use also entails significant losses to businesses. In just a single one-use cycle, US\$80-120 billion is lost. This represents 95% of aggregate plastic packaging value ([Ellen MacArthur Foundation, 2016](#)).

Despite the globally accepted scale of the problem and extent of its impacts, many companies have a limited understanding and disclosure of how they contribute to the plastic crisis and their exposure to commercial, legal, and reputational risks across their value chains.

In 2024, all disclosing companies will be able to access CDP's plastics questions. This is because:

- ▼ Companies in all sectors contribute to, or are affected by plastic waste and pollution;
- ▼ The impacts of plastics are interconnected and cross-cutting; and,
- ▼ Keeping plastics out of the environment is essential to restoring the health of our ecosystems.

On behalf of investors, purchasing companies that are CDP supply chain members, and other data users, CDP requests companies to report on; the substantive risks plastics pose to their business, the raw material content, reusability and recyclability of their plastic products, the end-of-life management of plastic waste and their targets for reducing the impact of their plastics-related activities across the entire value chain.

CDP's Plastics module is informed by existing plastics disclosure frameworks, standards, guidelines and incoming legislation. This provides decision makers with clear, comprehensive, and comparable data on the production, commercialization, usage and disposal of plastics across the global economy.

There are several updates to the 2024 questionnaire. The Plastics qualitative questions have been integrated and expanded to include plastics mapping across direct operations and the value chain in module 1, risk assessment and disclosure in modules 2 and 3, and value chain engagement in module 5. In addition, definitions throughout the module have been updated to increase clarity and align with existing standards, frameworks, guidance, and best practice. Two new questions on end-of-life management were added to module 10 to cover the entire lifecycle of plastics.

The scope of plastics activities was also expanded. The disclosure now includes the commercialization of plastics polymers, including plastics converters and goods/products packaged in plastics. This is in addition to production. Data is also now collected on the usage of durable plastics goods and components in addition to production and commercialization. New activities were included such as the production of waste management and/or water management services as well as the provision of financial products and/or services for plastics-related activities. As strategies for reducing plastics-related impacts and increasing circularity mature, CDP will review the data that companies are able to provide and collect feedback from our stakeholders on what is most relevant to driving action and informing decision making.

The plastics questions will remain unscored in 2024, and therefore will not impact a company's score. This is in recognition that many companies are in the early stages of developing their action, accountability, and reporting on plastics.

2. Technical FAQs

Which plastics activities are the focus of CDP's 2024 disclosure?

CDP asks for information from all companies that produce, commercialize and use a variety of plastic products across their business operations, covering the entirety of the value chain to end-of-life management.

The module includes quantitative metrics on plastic polymers, durable goods/products and durable components and packaging, and end-of-life management.

Production/commercialization of plastic polymers (including plastic polymers)

This activity refers to the conversion of virgin and/ or recycled raw materials into resin pellets. These raw materials may be fossil fuel-based, e.g. derived from crude oil, or renewable-based, e.g. derived from sugar cane ethanol. 'Production/commercialization of plastic polymers' captures all companies involved in processing virgin and/or recycled raw materials, polymerization, and/ or compounding of plastics, and/or the selling of them for financial gain. As well as a distinction of source type, e.g. fossil-fuel or renewable, there is a distinction between virgin fossil-based materials and recycled fossil-based content materials. See glossary: <https://plasticseurope.org/plastics-explained/how-plastics-are-made/>.

Production/commercialization of durable plastic components (including mixed materials)

This activity refers to the conversion of polymers (e.g. resin pellets) into plastic components of products, and the companies that sell them for financial gain. For example, a polypropylene component of a car bumper. This category is only for components that make up other products.

Production/commercialization of durable plastic goods (including mixed materials)

This activity refers to the conversion plastic polymers (e.g. resin pellets) into plastic goods, and the companies that sell them for financial gain. For example, a children's toy made from ABS plastic.

Usage of durable plastic goods and/or components (including mixed materials)

This activity refers to companies which use plastic goods and/or components to produce a final product or provide a service. These durable goods/components are themselves not sold. For example, ultra-high molecular weight polyethylene components used in conveyor systems, nylon components used in gears or plastic tables used for office equipment.

Production/commercialization of plastic packaging

This activity refers the conversion of polymers into plastic packaging, and/or the placing of plastic packaging into the market (e.g. selling, distributing, marketing). This activity group does not include the production/commercialisation of goods that are packaged in plastic.

Production/commercialization of goods/products packaged in plastics

This activity refers to the production of goods, of any kind, that are packaged in plastics; for example, a company that manufactures bars of soap wrapped in LDPE packaging.

Provision/ commercialization of services that use plastic packaging (e.g., food services)

This activity refers to the provision services, of any kind, that involve the use of plastic packaging (not companies that manufacture plastic packaging, goods in plastic packaging, or plastic goods). An example of this is an airline that provides food wrapped in LDPE packaging to its passengers.

Are mixed materials included in the metric for 'total weight' of plastic packaging or goods?

For mixed materials, companies are requested to provide data on:

- Goods or packaging that consist of at least 50% plastic by weight.
- The weight of the plastic proportion of the goods or packaging only.

For example: A company manufactures cosmetics containers. One container weighs 100g: 60g PET plastic and 40g glass. The company sold 500 containers in the reporting period. It should report $500 \times 60\text{g} = 30,000\text{g} = 0.03$ metric tonnes. The company also manufactures 50g cosmetics

tubes made from 30g bamboo and 20g PET plastic. Because this product is less than 50% plastic by weight, the company is not required to report on this product.

The types of plastic reported should include fossil-based, bio-based, compostable, biodegradable, and oxo-degradable plastic.

CDP recognizes that reporting the total weight of plastic in mixed materials products may require estimation rather than measurement.

Does CDP ask about single-use plastics?

Packaging is the most prevalent and problematic form of single-use plastics. In line with the Ellen MacArthur Foundation's Global Commitment, we request metrics about packaging, rather than about single-use items as a specific category of plastics.

Included in CDP's definition of plastic packaging is:

- Plastic packaging in direct contact with the product, holding several units of packaging and/or used for the transport of units of packaging (i.e., primary, secondary, and tertiary plastic packaging).
- Plastic packaging applied to or offered to accompany any products sold (for example, plastic shopping bags or plastic cutlery accompanying food).

This would mean, for example, that a pack of disposable cutlery sold independently of food is not considered packaging.

What are the different raw material sources for plastics?

There are two dimensions to the raw material sources for plastics: fossil-based versus renewable, and virgin versus recycled.

Fossil-based versus renewable

Fossil-based content refers to the polymers in a plastic product that are produced from petrochemicals. Renewable content refers to polymers derived from sources that are continually replenished at a rate equal to or greater than the rate of depletion, e.g. sustainably harvested starch or cellulose. Both fossil-based and renewable plastics can be either virgin or recycled.

Virgin versus recycled

Virgin content is the plastic content that has not been previously used or subjected to processing other than for its original production. Virgin plastic content has not been produced from post-industrial or post-consumer recycled material. In contrast, recycled plastics have been produced from pre-consumer or post-consumer recycled material. Both virgin and recycled plastics can be derived from fossil-based sources or renewable sources.

What is the difference between 'technically recyclable' and 'recyclable in practice and at scale'?

'Technical recyclability' reflects the technical potential to recycle a product containing plastic, but does not take into account whether the collection, sorting, and recycling of the package happens in practice, at scale, and with reasonable economics (e.g. it could work in a lab or in one (pilot) facility but not be currently economically viable to replicate at scale). Note that some organizations refer to this as "packaging designed for recycling". To assess the design for recycling/technical recyclability various guidelines, tools and testing methods are available from The Association of Plastics Recyclers (APR), Plastic Recyclers Europe, European PET Bottle Platform, Consumer Goods Forum Golden Design Rules, and many more. If there are minor differences between the different guidelines, it is encouraged to use the geographically most relevant or strictest one.

To assess whether packaging is 'recyclable in practice and at scale', the Ellen MacArthur Foundation's [Global Commitment Reporting Guidelines 2024](#) requires the packaging to meet a

threshold of 30% recycling rate in multiple regions, collectively representing at least 400 million people. A possible alternative, especially relevant for more local players, is to check if a 30% post-consumer recycling rate is achieved in all the markets where a packaging is sold. To verify which plastic packaging are recyclable in practice and at scale, and to calculate your organization's recyclability percentage, your organization can view the Recycling Rate Survey and use the Recyclability Assessment Tool developed by the Ellen MacArthur Foundation, available [here](#).

3. End-of-life Management FAQs

Why does CDP use the term 'end-of-life management' instead of 'disposal' or 'waste management'?

End-of-life management is defined as the stage of the lifecycle where goods, materials and substances are no longer in use and go through a management system to process them for preparation for reuse, recycling, or disposal (adapted from [European Environmental Bureau](#) and [Pew Charitable Trusts](#)).

Disposal or waste management is often thought of as when a consumer disposes of an item. While end-of-life management does occur at this stage of a value chain, it also can occur throughout the value chain too. For example, during production or commercialization, goods, materials and substances can no longer be in use and reach end-of-life. It is for this reason, CDP uses the term 'end-of-life management', to highlight this can occur at any stage of the value chain.

What are the pathways plastics can take at end-of-life?

There are multiple pathways plastics can take at end-of-life to process and prepare them for reuse, recycling or disposal.

Preparation for reuse

This end-of-life management pathway refers to plastic that is prepared for reuse, which may involve checking, cleaning, washing, or repairing so that it can go through another use phase, without any other pre-processing ([WRAP](#) and [Waste Framework Directive](#)). Reuse is an essential part of the circular economy for plastic to minimize waste and keep materials in use for longer. As an end-of-life management pathway, it sits on top of the waste hierarchy.

Recycling

This end-of-life management pathway refers to plastic which undergoes mechanical or chemical recycling to be reprocessed for its original or other purposes. This does not include plastic feedstock for thermal recycling, also known as waste-to-energy or energy recovery. Recycling is an essential part of the circular economy for plastics to minimize waste generation and keep materials in use for longer.

Composting (industrial/home)

This end-of-life management pathway refers to plastic which undergoes a process from biological activity to degrade the material into organic substances. The materials from composted plastic can be returned to the earth after use, however, it does not prevent waste from being generated in the first place which is a core principle of the circular economy.

Waste to Energy

This end-of-life management pathway refers to plastic that is burned as fuel to generate electricity. It is also known as thermal recycling.

Landfill

This end-of-life management pathway refers to plastic that is placed in landfill as a means of disposal. This pathway does not contribute to a circular economy for plastics and should be aimed to be reduced.

Incineration

This end-of-life management pathway refers to plastic that is burned as a means of disposal, and does not generate electricity. The incineration of plastics and release toxins and GHG emissions. This pathway does not contribute to a circular economy for plastics and should be aimed to be reduced.

Mismanaged Waste

This end-of-life management pathway refers to plastic that are either littered or inadequately disposed. This includes disposal in dumps or open, uncontrolled landfills, where it is not fully contained. Plastic waste is also considered mismanaged when it may be released into the environment during collection or distribution ([Jambeck et al., 2015](#) and [IUCN The Marine Plastic Footprint](#)). This pathway contributes significantly to plastic pollution of the environment and should be aimed to be eliminated.

Leakage

This end-of-life management pathway refers to the accumulation of plastics in the natural environment, either as macroplastics or microplastics ([Plastic Footprint Network](#)). This pathway contributes significantly to plastic pollution of the environment and should be aimed to be eliminated.