

NEW PLASTICS ECONOMY GLOBAL COMMITMENT: GOVERNMENT SIGNATORY PACK

CONTEXT

Plastic waste and pollution have captured the attention of the public, governments, and businesses around the world. The search for solutions has started, and there is growing recognition that addressing the symptoms through clean-ups is not enough. A systemic shift tackling the root causes is required: a transition towards a circular economy for plastics, in which plastics never become waste.

Over the past four years, the Ellen MacArthur Foundation ('the Foundation') has been rallying businesses and governments behind this positive vision of a circular economy for plastics. Its 2016 and 2017 New Plastics Economy reports captured worldwide headlines and became a global reference. The Foundation's New Plastics Economy initiative is driving action with businesses and governments. It has brought together 15 leading companies committed to work towards 100% reusable, recyclable, or compostable plastic packaging by 2025. It has also created the Plastics Pact, a network of national New Plastics Economy implementation initiatives aligned around a common vision and set of ambitious targets. The first Plastics Pact has been launched in the UK and is being implemented by the UK charity WRAP. Other regional and national implementation initiatives will follow.

UN Environment provides leadership and encourages partnerships in tackling marine pollution by inspiring, informing, and enabling governments, the public, civil society, and the private sector. Its Global Partnership on Marine Litter was launched in 2012 and its #CleanSeas campaign in February 2017 with the aim of engaging these groups in the fight against marine plastic litter.

The Foundation and UN Environment now aim to take this momentum to the next level by launching the New Plastics Economy Global Commitment.

INTRODUCING THE NEW PLASTICS ECONOMY GLOBAL COMMITMENT

The New Plastics Economy Global Commitment ('Global Commitment') presents a unique opportunity for businesses and governments to step forward as global leaders working on solutions that address the root causes of plastic waste and pollution. It aims to act as a lighthouse, enabling front-running businesses and governments to inspire others by leading by example. The Global Commitment will be led by the Foundation in collaboration with UN Environment. Additional collaborators may work with the Foundation during the term of the Global Commitment to assist in running it, or its publicity.

Signatories of the Global Commitment will become part of a network of leading businesses and governments, receiving global recognition as front-runners in the shift towards a circular economy for plastics. Credibility will be ensured by setting a minimum level of ambition for signatories, providing common definitions, and creating transparency on progress. Following the public launch, signing the Global Commitment will be a requirement to become a participant of the New Plastics Economy initiative, which will facilitate signatories to realise their circular economy ambitions and raise them over time.

The Global Commitment will build on, and reinforce, the G7 Plastics Charter, the EU strategy for plastics in a circular economy, the Commonwealth Blue Charter, and the Community of Ocean Action established by the UN. It will aim to contribute to the implementation of the UN Environment Assembly resolutions on marine litter and microplastics, and several Sustainable Development Goals (SDGs) including SDG

12 and 14. The Global Commitment does not aim to replace any potentially binding multilateral treaty process, but equally recognises that we cannot wait to act until such a process concludes.

HOW TO BECOME PART OF THE GLOBAL COMMITMENT

For businesses

1. Endorse the Global Commitment's common vision (see **Appendix II**)
2. Make the following individual commitments:
 - a. **Packaged goods companies, retailers,¹ hospitality and food service companies,¹ packaging producers**
 - i. Take action to eliminate problematic or unnecessary plastic packaging by 2025
 - ii. Take action to move from single-use towards reuse models where relevant by 2025
 - iii. 100% of plastic packaging to be reusable, recyclable, or compostable by 2025
 - iv. Set an ambitious 2025 recycled content² target across all plastic packaging used
 - b. **Raw material producers:** Set an ambitious 2025 target to increase the use of recycled² plastics^{3,4}
 - c. **Collection, sorting, and recycling industry:** Set an ambitious 2025 target to grow the volume and quality of recycled/composted⁵ plastics, and accordingly increase the ratio of recycled and composted over landfilled and incinerated plastic volumes
 - d. **Durable goods producers:** Set an ambitious 2025 recycled content² target across all plastics used in products or components
 - e. **Investors:** Invest a meaningful amount by 2025 in businesses, technologies, or other assets that work to realise the vision of a circular economy for plastics
3. Commit to collaborate towards increasing reuse/recycling/composting rates for plastics
4. Report annually and publicly on progress towards meeting these commitments, as well as on annual volumes (tonnes) of plastics production/use (the latter confidentially for aggregation purposes, but publicly is encouraged). Reporting requirements will be kept as straightforward as possible.

For governments (national, sub-national and local)

1. Endorse the Global Commitment's common vision (see **Appendix II**)
2. Commit to put ambitious policies and (where relevant) measurable targets in place in order to realise and report tangible progress by 2025, in each of the following five areas:
 - a. Stimulating the elimination of problematic or unnecessary plastic packaging and/or products
 - b. Encouraging reuse models where relevant, to reduce the need for single-use plastic packaging and/or products
 - c. Incentivising the use of reusable, recyclable, or compostable plastic packaging
 - d. Increasing collection, sorting, reuse, and recycling rates, and facilitating the establishment of the necessary infrastructure and related funding mechanisms
 - e. Stimulating the demand for recycled plastics

¹ For retailers and hospitality and food service companies the commitments cover own-branded products only

² Post-consumer recycled content (as defined in Appendix IV)

³ A 2025 target on average share (%) of recycled content across all resins sold (preferred) or a commitment to a meaningful investment between 2018 and 2025 in recycling technologies or activities

⁴ The commitment for producers of compostable plastics ("set a 2025 target to increase the share of renewable content to at least [x%], all of it from responsibly managed sources") is still work in progress

⁵ Target on volume of plastics collected for recycling (collector), sorted for recycling (sorter), or recycled/composted (recycler/composter)

FINAL VERSION, October 4, 2018

3. Commit to collaborate with the private sector and NGOs towards achieving the Global Commitment's common vision (e.g. through Plastics Pacts)
4. Report annually and publicly on the implementation of these commitments and progress made

For endorsers (e.g. NGOs, associations, academics, others)

1. Endorse the Global Commitment's common vision (see **Appendix II**)
2. Encourage others to join the Global Commitment (optional)
3. Make ambitious commitments in line with the vision (optional)

Additional context for all signatories

None of the commitments above will, on its own, be sufficient to realise a circular economy for plastics. However, all of them contribute towards that vision, and collectively they are an important and necessary step forward.

These commitments are considered a 'minimum bar' to sign up to the Global Commitment. All signatories are encouraged to:

1. Make more ambitious commitments
2. Make additional commitments that contribute to achieving the vision
3. Make commitments beyond plastic packaging that extend to all packaging, and to all plastic items put on the market
4. Submit targets to reduce the quantity of virgin plastics used as a result of the commitments above on elimination, reuse, and recycled content

Over time, the ambition level and progress of the Global Commitment and its Signatories will be reviewed and, where relevant, discussed with Signatories, to ensure the Global Commitment continues to represent true leadership.

COMMITMENT AND SIGNATURE

Please fill out and sign this section to become a government signatory of the Global Commitment. Filling out the boxes below and adding a signature can be done electronically using Acrobat Reader (preferred) or manually after printing. The remainder of the document cannot, and should not, be changed. Please send back an electronic copy of the full document (incl. Appendices), together with your government's logo to your Foundation or UN Environment contact via email.

1. We endorse the New Plastics Economy Global Commitment common vision (see **Appendix II**)
2. Commit to put ambitious policies and (where relevant) measurable targets in place in order to realise and report tangible progress by 2025, in each of the following five areas:
 - a. Stimulating the elimination of problematic or unnecessary plastic packaging and/or products. We will do this by:

The NL Ministry of Infrastructure and Water Management will implement the national Plastics Pact NL (21/2/2019), the European Plastics Pact (to be signed 6/3/2020) and the MoU Waste & CE with Indonesia on the global level. Specific common goals in the Plastics Pact NL for 2025 are: 100% recyclability and 70% recycling of single use plastic products and packaging which can't be achieved without adding chemical recycling capacity, able to extract problematic substances in plastics.

- b. Encouraging reuse models where relevant, to reduce the need for single-use plastic packaging and/or products. We will do this by:

The NL Ministry of Infrastructure and Water Management will implement the Plastics Pact NL, the European Plastics Pact, and the MoU with Indonesia especially reaching the national goal of -20% reduction in 2025 and will implement the MoU with Indonesia in particular by circular design tracks on Reduce and Reuse with Indonesian brandowner, retailers and packaging companies, working towards (harmonised) guidelines to reduce the unnecessary use of plastics and to create new defaults in reduction and in applied reuse models.

- c. Incentivising the use of reusable, recyclable, or compostable plastic packaging. We will do this by:

The NL Ministry of Infrastructure and Water Management will promote the development of standards and labels for reusable and recyclable plastic packaging and will promote new incentives in the eco-modulation of the EPR-scheme for packaging and single use plastic products on the national, European and global level.

- d. Increasing collection, sorting, reuse, and recycling rates, and facilitating the establishment of the necessary infrastructure and related funding mechanisms. We will do this by:

The NL Ministry of Infrastructure and Water Management will enhance value chain cooperation between partners of the Plastics Pact NL, the European Plastics Pact, and the bilateral relation with Indonesia. It will subsidize nationally private investments in innovative sorting & recycling technology/installations (reducing CO₂-emissions), disincentivize incineration, landfilling and export of unsorted (and difficult to recycle) plastics waste with regulations and taxes and will promote value chain collaboration projects, e.g. with the Province of East-Java, to improve, scale up and replicate collection, sorting and recycling of plastics.

- e. Stimulating the demand for recycled plastics. We will do this by:

The NL Ministry of Infrastructure and Water Management will promote the effective use of eco-modulation regarding the implementation of the EPR-scheme for single use plastic products and packaging. At the same time, the Dutch Green Deal on Trustworthy Claims of the use of Plastic Recyclate, which has been signed the 7th of January 2020, will be implemented to guarantee the use of (right quality of) plastic recyclate. The outcomes will be shared in Europe and internationally to enhance a harmonised approach on norms and standards regarding the recycled content of plastic products and materials.



FINAL VERSION, October 4, 2018

3. We commit to collaborate with the private sector and NGOs towards achieving the Global Commitment's common vision (e.g. through Plastics Pacts)
4. We make the following relevant additional commitments (optional):

The NL Ministry of Infrastructure and Water Management will collaborate with the private sector and NGO's on the national level through the network of the Plastics Pact NL, on the European level through the network of the European Plastics Pact and on the global level through the bilateral collaboration with the Indonesian government and the networks of PACE/GPAP and the Global Commitment of the New Plastics Economy.

5. We commit to report to the Foundation and the UN Environment annually on progress towards meeting the commitments in sections 2 to 4 (in accordance with **Appendix III**), and we understand this information will be made public by the Foundation and UN Environment on the communication channels of the Global Commitment.

Official name of our government we want to be used in communications related to the Global Commitment [Please complete]:

The NL Ministry of Infrastructure and Water Management

Name and email address of first point of contact related to your participation in the Global Commitment [please complete]:

Arnoud Passenier, arnoud.passenier@minienw.nl

Subject to, and in accordance with, the terms set out in **Appendix I**.

Signed:

[Redacted signature area]

Name: S van Veldhoven - van der Meer

Title: Minister for the Environment and Housing

Date:

[Redacted date area]

APPENDIX I - GLOBAL COMMITMENT TERMS

The Global Commitment gives visibility to a network of global leaders from the private and public sectors (the 'Signatories') working on solutions that address the root causes of plastic waste and pollution.

The completed Global Commitment form and Appendices II-IV are incorporated in full as part of these terms, and it is important to read and understand them before signing the Global Commitment. This Global Commitment is between the government Signatory, the Ellen MacArthur Foundation and the UN Environment, and does not give any benefit or right of enforcement to a third party.

What happens at time of signature?

From the date of the public launch of the Global Commitment, the Signatory's name and logo:

- will appear on the New Plastics Economy website to show government signatory status of the Global Commitment;
- will be used in connection with the Signatory's progress towards the commitments it has made; and
- may also appear on some of the Foundation's and UN Environment's social media assets, press releases, and other communications material related to the New Plastics Economy Global Commitment.

If the use of your organisation's logo requires additional approval, please let us know when you sign the Global Commitment so that we can connect you to the Foundation communications team (who will lead on all communications related to the Global Commitment) and put the appropriate process in place.

You will be able to:

- refer to this Global Commitment in order to show your government is a Signatory, by using the following sentence: "We are a signatory of the New Plastics Economy Global Commitment, led by the Ellen MacArthur Foundation in collaboration with UN Environment";
- use the logo that we provide you with to accompany the statement. You should not use this logo for any other purposes, nor should you use any other logos of the Foundation or UN Environment or the 'Ellen MacArthur Foundation' or 'UN Environment' name for any other purposes, unless agreed in writing with these organisations in advance. All logo use must be in accordance with the Global Commitment's brand guidelines, a copy of which will be provided to your organisation following signature;
- after signing the Global Commitment you will receive a communications pack with a logo and other assets and language you can use to demonstrate you are a signatory.

Reporting

The Ellen MacArthur Foundation and UN Environment rely on each Signatory reporting information accurately, and in a timely fashion; data provided by the Signatory will not be verified nor audited. Considering the multiple Signatories' reports that need to be compiled in every reporting exercise, failing to report on time is likely to result in non-appearance on the annual public progress report. Repeated non-reporting, reporting incomplete information or reporting inaccurate information may result in termination of the signatory status, after consultation between the Foundation, UN Environment and the Signatory.

While all reasonable efforts will be made to ensure the information you provide us for public disclosure is reproduced accurately in our reports and communications, and both the Foundation and UN Environment will correct any errors that are pointed out to us, neither the Foundation nor UN Environment will be liable for reporting any inaccurate or incomplete information about a Signatory. In

the event of an error in our reporting or communications, or in the information a Signatory has provided to us, please contact global.commitment@ellenmacarthurfoundation.org with details of the error as soon as possible so that the Foundation and UN Environment can update our records.

Liability

To the maximum extent permitted by law, the Foundation and UN Environment disclaims all warranties (express or implied) and shall not be liable in any circumstances to your organisation, whether in contract, tort (including negligence), breach of statutory duty, or otherwise arising in connection with the Global Commitment or our reporting of the same, including for loss of profits, loss of sales, loss of business or revenue, business interruption, loss of anticipated savings, loss or corruption of data, loss of goodwill or reputation, or any indirect or consequential loss or damage.

In the unlikely event that a dispute or claim between the parties arising out of this Global Commitment cannot be resolved amicably, it may be referred by any party to arbitration under the United Nations Commission on International Trade Law (UNCITRAL) Arbitration Rules then in force. The arbitration may, at the determination of the arbitrator, be conducted in two languages, but English must always be one of the languages used. The Signatory organisation agrees that progress towards the commitments is its responsibility, and the neither Foundation nor UN Environment have responsibility or liability for the Signatory government's ability to meet them.

Revising the Global Commitment's ambition level and progress

Given the high-paced developments in the transition towards a circular economy for plastics, the ambition level and progress of the Global Commitment and its Signatories will be reviewed over time and, where relevant, discussed with Signatories, to ensure the Global Commitment continues to represent true leadership.

Confidentiality

By signing the Global Commitment, the Signatory consents to the publication of that information stated to be public provided under the reporting requirements. The Foundation and UN Environment recognise that certain other information you provide us with as a signatory may constitute confidential information. In relation to such information, the Signatory agrees to explicitly state at the time it supplies it whether or not it is confidential. We will not disclose, or permit the disclosure of your confidential information unless such use, disclosure, or duplication is:

- authorised in writing (including by email) by the Signatory;
- required by law or regulatory authority; or
- made to professional advisers or representatives who owe general duties of confidentiality.

and we will only use such information internally to the extent needed to carry out our work in relation to the Global Commitment.

Data Protection

To the extent the Foundation and/or UN Environment receive any personal data from you, we will only use the same to enable the performance of our obligations in relation to this Global Commitment, and

- in the case of the Foundation, to the extent required by law or regulator; and
- in the case of UN Environment, in accordance with the Guidelines for the Regulation of Computerized Personal Data Files adopted by General Assembly resolution 45/95 on 15 December 1989.

The Foundation and UN Environment have information standards and regulations in place, respectively to protect the confidentiality, integrity, and security of any personal data supplied to them.

Leaving the Global Commitment

Creating a circular economy for plastics requires a concerted and long-term effort from all stakeholders. We hope that the Signatory remains a Signatory and an active participant in the Global Commitment until 31 December 2025. However, the Foundation and UN Environment recognise that in certain circumstances, signatory status will not be appropriate and we reserve the right to immediately terminate signatory status on written notice (which includes email) in one or more of the following circumstances:

- on request by law enforcement or other governmental agencies; or
- on request by the Foundation and UN Environment:
 - due to lack of appropriate reporting, where the Signatory has failed to provide sufficient justification for that lack of reporting; or
 - if, after discussion with the Signatory (where it is given the opportunity to explain its conduct and where UN Environment, the Foundation and the Signatory jointly look for solutions) the Signatory's ambition level or progress is deemed insufficient to be aligned with the Global Commitment; or
 - if the Signatory's actions are deemed to go fundamentally against the Global Commitment's intentions without the provision of acceptable justification by the Signatory;
- where the Global Commitment terminates for any reason; or
- where this government Global Commitment stops being run by the Foundation and UN Environment.

The Signatory may also immediately terminate the signatory status at any time by giving us written notice.

Upon termination of the Signatory's participation in the Global Commitment, the Signatory will no longer be required to report data to the Foundation and UN Environment and will immediately stop all further use of each of our logo(s) and name. The Signatory will not hold itself out as having any further association with the Foundation or UN Environment in connection with the Global Commitment or its subject matter.

Translated versions

Where a translated version of the Global Commitment and Appendices has been provided as a matter of courtesy to facilitate discussions and understanding, and any differences of interpretation arise between the different versions, the Signatory agrees that the English version shall take precedence over a version in any other language.

APPENDIX II – COMMON VISION

We, the signatories of the New Plastics Economy Global Commitment, endorse the vision of a circular economy for plastics, where plastics never become waste. We recognise this vision offers a root cause solution to plastic pollution with profound economic, environmental, and societal benefits.

Collectively, we will work towards this vision by meeting our individual commitments and collaborating within and beyond this coalition of signatories.

For plastic packaging, specifically, we recognise a circular economy is defined by six characteristics:

- 1. Elimination of problematic or unnecessary plastic packaging through redesign, innovation, and new delivery models is a priority**
 - a. Plastics bring many benefits. At the same time, there are some problematic items on the market that need to be eliminated to achieve a circular economy, and sometimes, plastic packaging can be avoided altogether while maintaining utility.
- 2. Reuse models are applied where relevant, reducing the need for single-use packaging**
 - a. While improving recycling is crucial, we cannot recycle our way out of the plastics issues we currently face.
 - b. Wherever relevant, reuse business models should be explored as a preferred 'inner loop', reducing the need for single-use plastic packaging.
- 3. All plastic packaging is 100% reusable, recyclable, or compostable**
 - a. This requires a combination of redesign and innovation in business models, materials, packaging design, and reprocessing technologies.
 - b. Compostable plastic packaging is not a blanket solution, but rather one for specific, targeted applications.
- 4. All plastic packaging is reused, recycled, or composted in practice**
 - a. No plastics should end up in the environment. Landfill, incineration, and waste-to-energy are not part of the circular economy target state.
 - b. Businesses producing and/or selling packaging have a responsibility beyond the design and use of their packaging, which includes contributing towards it being collected and reused, recycled, or composted in practice.
 - c. Governments are essential in setting up effective collection infrastructure, facilitating the establishment of related self-sustaining funding mechanisms, and providing an enabling regulatory and policy landscape.
- 5. The use of plastics is fully decoupled from the consumption of finite resources**
 - a. This decoupling should happen first and foremost through reducing the use of virgin plastics (by way of dematerialisation, reuse, and recycling).
 - b. Using recycled content is essential (where legally and technically possible) both to decouple from finite feedstocks and to stimulate demand for collection and recycling.
 - c. Over time, remaining virgin inputs (if any) should switch to renewable feedstocks where proven to be environmentally beneficial and to come from responsibly managed sources.
 - d. Over time, the production and recycling of plastics should be powered entirely by renewable energy.
- 6. All plastic packaging is free of hazardous chemicals, and the health, safety, and rights of all people involved are respected**
 - a. The use of hazardous chemicals in packaging and its manufacturing and recycling processes should be eliminated (if not done yet).
 - b. It is essential to respect the health, safety, and rights of all people involved in all parts of the plastics system, and particularly to improve worker conditions in informal (waste picker) sectors.

We recognise this vision is the target state we seek over time, and acknowledge that realising it will require significant effort and investment. We also recognise the importance of taking a full life-cycle and systems perspective, aiming for better economic and environmental outcomes overall. Above all, we recognise the time to act is now.

APPENDIX III - REPORTING GUIDELINES

Reporting publicly on progress made against individual commitments is crucial to ensure transparency and credibility of the *New Plastics Economy Global Commitment* (*Global Commitment*). This appendix summarises the reporting requirements, which have been kept as straightforward as possible and the reporting process as simple as possible.

1. Reporting process

Each year until 2025, signatories are expected to report on progress made against their commitments. The process will be as follows:

- a. UN Environment or the Foundation will send out a simple and straightforward reporting request and template to Signatories annually;
- b. Signatories will have a deadline by which they have to report back, which will be not less than three months from the date of the reporting request;
- c. acknowledging that reporting cycles differ from organisation to organisation, signatories will be able to report based on the latest completed year for which they have data;
- d. where information provided is unclear, or incomplete, the Foundation or UN Environment may request additional clarification details and you agree to provide this as soon as possible.

Wherever relevant, all reporting should be in line with definitions as defined in **Appendix IV** of the Global Commitment. If anything is unclear please do check with the Foundation team via **global.commitment@ellenmacarthurfoundation.org**.

This information will be made publicly available (e.g. on the New Plastics Economy website).

APPENDIX IV - COMMON DEFINITIONS FOR THE NEW PLASTICS ECONOMY GLOBAL COMMITMENT

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1. Introduction

The New Plastics Economy Global Commitment ('the Global Commitment') contains terms such as 'reusable', 'recyclable', 'compostable', 'renewable' and 'recycled content'. This appendix provides common definitions to underpin the Global Commitment, aiming to provide transparency and consistency. Signatories of the Global Commitment agree to use and refer to this terminology as a basis for their commitments and related reporting on progress.

Definitions are shown in boxes and often include footnotes with clarification. Additional notes below the definitions provide more context and/or examples.

This appendix is built on an extensive review of existing definitions, detailed discussions with dozens of experts, and a broad stakeholder review process involving over 100 organisations and experts across businesses, governments, NGOs, academics and standard-setting organisations. This appendix builds on ISO definitions where possible and relevant.⁶

Many of the definitions here could also be applicable outside the context of the Global Commitment, although some (e.g. 'recyclable') do remain inherently context dependent. Although most principles and some terms defined in this appendix could apply to all plastics and/or all packaging, this appendix focuses on common definitions for plastic packaging.

2. Take action to eliminate problematic or unnecessary plastic packaging

In order to achieve a circular economy for plastics, it is important to carefully consider what is put on the market in the first place. This commitment recognises that principle, and signals the intent of companies to actively identify problematic and unnecessary plastic packaging in their portfolio and to take action to eliminate those through redesign, innovation, and new (reuse) delivery models.

The importance of eliminating problematic and unnecessary items is already widely recognised in multiple businesses' packaging strategies, in the European Commission's minimum requirements for packaging and in its '*Strategy for plastics in a circular economy*', in the G7 Ocean Plastics Charter, and in the UK Plastics Pact, which includes this commitment and has been signed by over 90 organisations.

The following list of criteria is provided to help identify problematic or unnecessary plastic packaging or plastic packaging components:

1. It is not reusable, recyclable or compostable (as per the definitions below).
2. It contains, or its manufacturing requires, hazardous chemicals⁷ that pose a significant risk to human health or the environment (applying the precautionary principle).
3. It can be avoided (or replaced by a reuse model) while maintaining utility.
4. It hinders or disrupts the recyclability or compostability of other items.
5. It has a high likelihood of being littered or ending up in the natural environment.

⁶ Permission to reproduce extracts from British Standards is granted by BSI Standards Limited (BSI). No other use of this material is permitted. British Standards can be obtained in PDF or hard copy formats from the BSI online shop: www.bsigroup.com/Shop

⁷ Hazardous chemicals are those that show intrinsically hazardous properties: persistent, bio-accumulative and toxic (PBT); very persistent and very bio-accumulative (vPvB); carcinogenic, mutagenic, and toxic for reproduction (CMR); endocrine disruptors (ED); or equivalent concern, not just those that have been regulated or restricted in other regions (Source: Roadmap to Zero, definition based on EU REACH regulation - <http://www.roadmaptozero.com/>).

The elimination and/or replacement by alternatives should happen with a system's perspective, taking into account impacts on the entire (packaging and packaged goods) system and avoiding unintended consequences.

Businesses are encouraged to extend this commitment beyond plastic packaging to all packaging and plastic items they put on the market.

3. Take action to move from single-use towards reuse models

Reuse models are the preferred 'inner loop' wherever relevant, and beneficial, since it retains the most value in the system. New (information) technologies, innovative business models, and evolving use patterns are unlocking and facilitating new reuse opportunities. This has the potential to significantly reduce the need for single-use packaging. See the definition of reusable packaging in Section 4.1.

Businesses are encouraged to extend this commitment beyond plastic packaging to all packaging and plastic items they put on the market.

4. 100% of plastic packaging to be reusable, recyclable, or compostable

In a circular economy, waste and pollution are designed out, products and materials are kept in use, and natural systems are regenerated. Each system, service, product or packaging item needs to be designed to fit such an economy. This means that each piece of (plastic) packaging is either recyclable or compostable^{8,9}, ideally after several reuse cycles:

- a) Reuse is the preferred 'inner loop' wherever relevant and beneficial
- b) All packaging should be designed to be recycled (mechanically or chemically) or (where relevant for specific, targeted applications, not as a blanket solution) composted to keep the materials in the economy or return them safely to the biosphere, preferably after going through a number of reuse cycles

100% reusable, recyclable, or compostable plastic packaging commitments are important, as the circularity of a packaging item starts with its design. In some cases, existing solutions are available and proven to be viable; in others, further innovation in business models, packaging designs, collection, sorting, and recycling technologies will be required to achieve this commitment in a viable way that avoids unintended consequences.

⁸ Organic recycling includes composting and anaerobic digestion. Along with composting, anaerobic digestion can also be considered as a circular after-use pathway for plastics packaging, in line with ISO 18606. However as the Foundation believes the use of anaerobic digestion is currently limited for plastic packaging as at the date of publication, this appendix focuses on composting. For some very specific applications, biodegradation or dissolving of packaging (e.g. edible packaging, dishwasher tablet packaging) can also be considered part of a circular system for plastic packaging and counted towards achieving this commitment if proven that the entire biodegradation process takes places within a reasonable timeframe in all environmental conditions where it is likely to end up.

⁹ Or both recyclable and compostable. While the Foundation believes (based on research conducted to date) that no compostable plastic packaging is currently recycled at sufficient scale to be also 'recyclable' according to the definitions in this appendix, certain plastic packaging that is compostable and could technically be recycled has been developed, such as packaging made with PLA, PBS or PHA. It is important for packaging aimed to be recycled and packaging aimed to be composted to be separated, so the material streams do not contaminate each other.

4.1 Reusable packaging

Reuse

Definition: Reuse of packaging

Operation by which packaging is refilled or used for the same purpose for which it was conceived, with or without the support of auxiliary products (1) present on the market, enabling the packaging to be refilled.

Source: ISO 18603:2013, *Packaging and the environment - Reuse*, modified (clarification in note 1 below).

Note

1. An auxiliary product is a product used to support the refilling/loading of reusable packaging. (...) An example of an auxiliary product is a detergent pouch used to refill a reusable container at home (ISO 18603). As per ISO 18603, auxiliary products that are one-way products (i.e. designed to be used once) are not considered reusable packaging.

Further explanatory notes

- a. Attention should be paid to the intended use and function of the packaging, in order to verify whether it is being reused for the same purpose or a secondary use. In the latter case the packaging is not considered as reusable packaging (ISO 18603, '*Packaging used for the same purpose*'), e.g. the use of a package as a pen-holder or as decoration cannot be qualified as reuse.
- b. A package is considered reusable if the design of the packaging enables the principal components to accomplish a number of trips or rotations in normally predictable conditions of use (ISO 18603). According to ISO 18601, a packaging component is a part of packaging that can be separated by hand or by using simple physical means (e.g. a cap, a lid, a (non in-mould) label).

Examples

Packaging can be reused in different ways:

- Business-to-business applications: packaging is reused through a redistribution system between one or more companies¹⁰ (e.g. pallets loaded with the same or different product,¹¹ crates, pallet wraps)
- Business-to-consumer applications: packaging returned to the supplier to be reused (e.g. refilled) for the distribution and sale of an identical or similar product (e.g. a container that is part of a deposit return or refund system for reuse, a returnable transportation packaging item, a reusable container in the food service industry) or packaging not returned to the supplier, but instead reused by the user as a container or as a dispenser for the same product supplied by the manufacturer for the same purpose (such as a refill, including in a concentrated form).

¹⁰ ISO 18603:2013, '*Closed-loop system*'/'*Open-loop system*' definitions: Reuse can take place within a company or a cooperating group of companies (closed-loop) or amongst unspecified companies (open-loop).

¹¹ ISO 18603:2013, '*Packaging used for the same purpose*' definition: Reuse of pallets, loaded originally with dairy products and now loaded with house bricks is reuse for the same purpose.

Reusable packaging

Definition: Reusable packaging

Packaging which has been designed to accomplish or proves its ability to accomplish a minimum number of trips or rotations (1,2) in a system for reuse (3,4).

Source: ISO 18603:2013 - *Packaging and the environment - Reuse*, modified (packaging component mentioned in notes)

Notes

1. A trip is defined as transfer of packaging, from filling/loading to emptying/unloading. A rotation is defined as a cycle undergone by reusable packaging from filling/loading to filling/loading (ISO 18603).
2. The minimum number of trips or rotations refers to the fact that the 'system for reuse' in place should be proven to work in practice, i.e. that a significant share of the package is actually reused (measured e.g. by an average reuse rate or an average number of use-cycles per package).
3. A system for reuse is defined as established arrangements (organisational, technical or financial) which ensure the possibility of reuse, in closed-loop, open-loop or in a hybrid system (ISO 18603).
4. See above for the definition of reuse, which stresses amongst other things the need for the packaging to be refilled or used again for the same purpose for which it was conceived.

Further explanatory notes

- a. For a container to qualify as reusable, there needs to be a 'system for reuse' in place that enables the user of the package to ensure it is reused *in practice* where the item is placed on the market. Such a system for reuse should be able to prove a significant actual reuse rate, or average number of use-cycles of a package, in normal conditions of use.
- b. A package is considered reusable if the design of the packaging enables the principal components to accomplish a number of trips or rotations in normally predictable conditions of use (ISO 18603:2013). According to ISO 18601, a packaging component is a part of packaging that can be separated by hand or by using simple physical means¹² (e.g. a cap, a lid, a (non in-mould) label).
- c. Single-use packaging (i.e. designed to be used once) aimed at delivering a refill for a reusable package is not considered reusable packaging.
- d. A reusable item can undergo reconditioning, that is operations necessary to restore a reusable packaging to a functional state for further reuse (ISO 18603:2013).
- e. Reusable packaging should be designed to be recyclable, as it will inevitably reach the maximum number of reuse cycles at some point, after which recycling ensures the material is kept in the economy.

¹² ISO 18601:2013, Packaging component definition.

4.2 Recyclable packaging

Recycling

References to 'recycling' in this appendix always refer to 'material recycling'.

Definition: Material recycling

Reprocessing, by means of a manufacturing process, of a used packaging material into a product, a component incorporated into a product, or a secondary (recycled) raw material; excluding energy recovery and the use of the product as a fuel.

Source: ISO 18604:2013 - *Packaging and the environment — Material recycling*, modified (note to entry not applicable).

Further explanatory notes

- a. This includes both mechanical (maintaining polymer structure) and chemical (breaking down polymer structure into more basic building blocks, e.g. via chemical or enzymatic processes) recycling processes.
- b. It explicitly excludes technologies that do not reprocess materials back into materials but instead into fuels or energy.
Chemical recycling can be considered in line with a circular economy if the technology is used to create feedstock that is then used to produce new materials. However, if these same processes are used for plastics-to-energy or plastics-to-fuel applications, these activities cannot be considered as recycling (according to ISO), nor as part of a circular economy. For a chemical recycling process, just like for the production of virgin plastics, no hazardous chemicals¹³ should be used that pose a significant risk to human health or the environment, applying the precautionary principle.
- c. A high quality of recycling and of recycled materials is essential in a circular economy, where one aim is to keep materials at their highest utility at all times. This maximises the value retained in the economy, the range of possible applications for which the material can be used, and the number of possible future life-cycles. It therefore minimises material losses and the need for virgin material input.
 - Maximising the quality and value of materials during recycling is made possible through a combination of packaging design and high-quality collection, sorting, cleaning, and recycling technologies and systems.
 - On the design side, organisations such as APR, PRE, EPBP, RECOUP and others have design-for-recyclability guidelines for plastic packaging that, as well as recyclability, often indicate the quality of the recycled output (e.g. through traffic light systems or classifications such as 'preferred for recycling' versus 'detrimental for recycling').

Recyclable packaging

Recyclability is perhaps the most ambiguous term amongst all packaging circularity terminology. 'Recyclable' means different things to different people in different contexts.

In the context of the Global Commitment, where the term 'recyclable' is used for global commitments by businesses that put packaging on the market (e.g. packaging producers, fast-moving consumer goods companies, retailers, hospitality and food service companies), 'technically recyclable'¹⁴ is clearly not enough: recycling does not just need to work in a lab. Instead it should be proven that packaging can be recycled in practice and at scale.

¹³ As defined in Section 2.

¹⁴ Technical recyclability considers the technical possibility to recycle a package, but does not take into account if 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 economically viable to replicate at scale). Therefore, such a definition does not directly correlate to what is actually recycled in practice, and it would result in almost all packaging being considered 'recyclable'.

'In practice and at scale' means that there is an existing (collection, sorting and recycling) system in place that *actually* recycles the packaging (it is not just a theoretical possibility) and that covers significant and relevant geographical areas as measured by population size.

It is important to assess the recyclability of each package separately, taking into account its material composition, format design, manufacturing processes, and the most likely way of using, disposing, and collecting it (for more details and examples see note on p. 8 and 9). For example, the fact that PET *bottles* are proven to be recycled in practice and at scale does not necessarily imply that *all* PET packaging formats can be considered recyclable, nor that every single PET bottle is (depending on e.g. labels, glues, inks). Similarly, a large PE film and a small-format PE wrapper might currently have a very different likelihood of being collected and recycled in practice.

Moving towards only using 'recyclable' packaging as described above is a necessary first step, but is one that should happen in conjunction with other efforts to ensure all packaging is actually recycled in practice in every market where it is used.

Definition: Recyclable packaging

A packaging (1) or packaging component (2,3) is recyclable if its successful post-consumer (4) collection, sorting, and recycling (5) is proven to work in practice and at scale.

Notes

1. In the context of a 2025 timeframe and the Global Commitment, a package can be considered recyclable if its main packaging components, together representing >95% of the entire packaging weight, are recyclable according to the above definition, and if the remaining minor components are compatible with the recycling process and do not hinder the recyclability of the main components. Otherwise, only the recyclable components of a package (or the recyclable parts of components - see footnote 3) can be counted towards achieving this commitment, and only when other components do not hinder or contaminate their recyclability.

Examples:

- If a bottle and its cap are recyclable, the packaging can be claimed to be recyclable if it has a label (<5% of total weight) that does not hinder the recyclability of the bottle and cap.
- If that same bottle has a label that hinders or contaminates the recycling of the bottle and cap, the entire packaging is non-recyclable.
- If a package has (a) certain component(s) that are not recyclable and that make up >5% of the total packaging weight (e.g. 12%) and that do not hinder or contaminate the recycling of the remaining recyclable components of the package, then only that recyclable part (e.g. 88%) can be counted towards this commitment.

Longer-term, the aim should be for all packaging components (e.g. including labels) to be recyclable according to the above definition.

2. A packaging component is a part of packaging that can be separated by hand or by using simple physical means (ISO 18601), e.g. a cap, a lid and (non in-mould) labels.
3. A packaging component can only be considered recyclable if that entire component, excluding minor incidental constituents (6), is recyclable according to the definition above. If just one material of a multi-material component is recyclable, one can only claim recyclability of that material, not of the component as a whole (in line with US FTC Green Guides¹⁵ and ISO 14021).
4. ISO 14021 defines post-consumer material as material generated by households or by commercial, industrial and institutional facilities in their role as end users of the product which can no longer be

¹⁵ US Federal Trade Commission (2012), Guides for the Use of Environmental Marketing Claims ("Green Guides"), Part 260.

used for its intended purpose. This includes returns of material from the distribution chain. It excludes pre-consumer material (e.g. production scrap).

5. Packaging for which the *only* proven way of recycling is recycling into applications that do not allow any further use-cycles (e.g. plastics-to-roads) cannot be considered 'recyclable packaging'.
6. ISO 18601:2013: A packaging constituent is a part from which packaging or its components are made and which cannot be separated by hand or by using simple physical means (e.g. a layer of a multi-layered pack or an in-mould label).

Further explanatory notes

- a. By being based on the principle that recycling needs to work in practice and at scale, the definition requires the entire system to work: material choices, packaging design, the manufacturing process, the most likely way of using, disposing and collecting the packaging, and the availability, compatibility, and performance of infrastructure for collection, sorting and recycling. It also implicitly requires the system to work technically, conveniently (if it works in practice and at scale, it must be convenient enough for actors in the system to participate) and economically (if it works in practice and at scale, it must be that the economics are reasonable and that there are end markets for the resulting material).
- b. By being based on the principle that recycling needs to work in practice and at scale, the definition of recyclable packaging allows for innovation. A packaging item that is not currently recyclable could be so in future (e.g. by putting in place effective collection, sorting and recycling technologies at scale).
- c. It is important to assess the recyclability of each package separately, taking into account its design, manufacturing processes and most likely way of using, disposing and collecting it, which all have a significant impact on the possibility and probability of the package being recycled in practice. For example:
 - Design: For example, choices of materials, the shape and size of the packaging, additives and colourants, glues, inks, caps, labels.
 - Manufacturing process: For example, sometimes additives are added to facilitate the manufacturing process or residual amounts of catalysts or other products end up in the packaging during the manufacturing process.
 - Most likely way of using and disposing: One should assume the most likely way of using and disposing the packaging and not assume unlikely conditions. For example, in most countries one cannot assume that a significant share of households will disassemble packaging before disposing of it. Other questions to consider include: Would the package be disposed most often with or without the label or cap still attached? Would it most likely be disposed of empty and clean, or contaminated with product residues, glue or lid residues?
 - Most likely way of collecting: Is the pack most likely to end up in a collection system for business-to-business bulk materials or in that for household materials? A package could be recycled in practice and at scale in business-to-business but not in business-to-consumer applications (e.g. PE pallet wraps usually end up in different collection systems than PE wraps around consumer products).
- d. While the definition does not specify where a package is recycled (i.e. allowing for the export and import of materials), businesses should ensure any exported packaging actually gets recycled before considering the recycling pathway to work in practice.
- e. The available technical design-for-recycling guidelines by organisations such as APR, PRE, EPBP, RECOUP and others bring a more technical and in-depth analysis of design for recycling prerequisites. As such, these guidelines are complementary to the 'recyclable' definition of this appendix, and businesses are encouraged to refer to and apply these design-for-recyclability guidelines.

Defining 'in practice' and 'at scale' quantitatively is challenging today because of data availability. However, a few (non-exhaustive) suggested qualitative prerequisites are listed below:¹⁶

¹⁶ Building on APR/PRE Global Definition of "Plastics Recyclability" (July 2018).

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1. There are significant and relevant geographical areas where (formal or informal) collection system(s) are in place that collect for recycling a large share of the packaging put on the market in that region.
2. The package is compatible with the material stream in which it is collected.
3. The package is sorted and aggregated into defined streams for recycling processes and the vast majority of what is collected actually gets recycled.
4. The package can be processed and recycled with commercial recycling processes.
5. A viable end market for the recyclate is available to put the material back in use.

One metric to determine to what extent these prerequisites are in place, and therefore if recycling of a certain packaging works in practice and at scale, would be the actual recycling rate. However, data on recycling rates by packaging type is very scarce and therefore does not yet allow for a fully quantified metric to be developed.

The New Plastics Economy team, together with the signatories of the Global Commitment, will explore if and how a broader evidence base can be developed to provide more detail on this definition as part of the 18-24 month Global Commitment review process.

The 'recyclable' definition above applies at a global level for global commitments: it is a characteristic of packaging and is not linked to any local context or specific geographical area. As such, this definition does not apply to claims linked to specific geographical areas (e.g. on-pack recycling labels, customer communications), as these should always take into account the local context and systems in place (in line with ISO 14021 and US FTC), and be in line with the local regulations that apply to such claims.

Finally, it is important to stress once more that, while the commitment to make all packaging recyclable by 2025 according to the definition above is a necessary first step, it is not an end goal in itself. The target state to aim for is one in which all packaging is actually recycled in all markets where it is put on the market (ideally after several reuse cycles and not including some targeted applications where compostability might be the preferred solution).

4.3. Compostable packaging

In a circular economy, all (plastic) packaging should be designed to be recyclable, or where relevant compostable¹⁷ (or both)¹⁸, ideally after several reuse cycles. As designing packaging for recycling comes with the advantage of keeping the value of the material in the economy, it is in many cases preferred over designing for composting. However, the latter can be valuable for targeted applications where considered appropriate and beneficial, if coupled with the relevant collection and composting infrastructure to ensure it gets composted in practice.

These targeted applications include packaging items for which composting offers a mechanism to return biological nutrients from the product the packaging contains, which would otherwise have been lost, back to the soil in the form of fertiliser or soil improver. Examples could include tea bags, compostable bags for compost collection in cities, or packaging materials that often end up in organic waste streams (e.g. fruit/vegetable labels). Applications for which compostable plastic packaging is used are ideally harmonised across the industry and clearly indicated, to avoid cross-contamination of compostable and recyclable material streams.

Recognising that compostable plastic packaging is not a blanket solution but rather one for specific, targeted applications, shifting to compostable packaging where reusable and/or recyclable alternatives would be preferred purely to achieve a commitment is not in line with the vision and intention of the Global Commitment.

Compostable packaging needs to go hand in hand with appropriate collection and composting infrastructure in order for it to be composted in practice. Therefore, when claiming compostability in the context of a specific geographical area (e.g. on-pack recycling labels, public communications), it is important to take into account the local context and available systems in place as outlined in ISO 14021, and be in line with the local regulations that apply to such claims.¹⁹

Composting can take place in an industrial facility, following a controlled process managed by professionals, as well as in a collective or at home, where the process is subject to the householder's skills and other environmental conditions. The terms 'composting' and 'compostable' as referred to in this appendix mainly refer to industrial composting.

¹⁷ Organic recycling includes composting and anaerobic digestion. Along with composting, anaerobic digestion can also be considered as a circular after-use pathway for plastics packaging, in line with ISO 18606. However as the Foundation believes the use of anaerobic digestion is currently limited for plastic packaging as at the date of publication, this appendix focuses on composting.

¹⁸ While the Foundation believes (based on research conducted to date) that no compostable plastic packaging is currently recycled at sufficient scale to be also 'recyclable' according to the definitions in this appendix, certain plastic packaging that is compostable and could technically be recycled, has been developed, such as packaging made with PLA, PBS and PHA. It is important for packaging aimed to be recycled and packaging aimed to be composted to be separated, so the material streams do not contaminate each other.

¹⁹ See note d. under "compostable packaging" definition.

Composting

Definition: Composting

Aerobic process designed to produce compost.

Note 1 to entry: Compost is a soil conditioner obtained by biodegradation of a mixture consisting principally of vegetable residues, occasionally with other organic material and having a limited mineral content.

Source: ISO 472:2013, *Plastics - Vocabulary*.

Further explanatory note

- a. Composting can take place in an industrial facility, a collective, or at home:²⁰
- Industrial composting: Municipal or industrial composting is a professionally managed and controlled, aerobic thermophilic waste treatment process covered by international standards and certification schemes, which results in compost, a valuable soil improver.²¹
 - Home composting: Designing packaging so that it is home-compostable means it adheres to more stringent conditions than industrially compostable packaging and increases the range of possible composting processes (both industrial and home composting). The home-composting process remains subject to the variability of householders' skills and experience, and the final product is not standardised.

Compostable packaging

Compostability is a characteristic of packaging or of a product, not of a material. As testing standards require packaging to disintegrate and biodegrade in a certain time frame, compostability is influenced not only by the material choice but also by, for example, the format, the dimensions, and usage of inks and colourants. For example, while a thin PLA film might be compostable, a solid block of the exact same material might not degrade fast enough to be considered compostable.

Care should therefore be taken when claiming 'compostability' for a material. When materials are referred to as compostable, it most often means that the material could be used to produce compostable items or packaging. It does not mean that all items produced using this material are compostable.

Definition: Compostable packaging

A packaging or packaging component (1) is compostable if it is in compliance with relevant international compostability standards (2) and if its successful post-consumer (3) collection, (sorting), and composting is proven to work in practice and at scale (4).

Notes

1. ISO 18601:2013: A packaging component is a part of packaging that can be separated by hand or by using simple physical means (e.g. a cap, a lid and (non in-mould) labels).
2. Including ISO 18606, ISO 14021, EN13432, ASTM D-6400 and AS4736.
3. ISO 14021's usage of term clarifies post-consumer material as material generated by households or by commercial, industrial and institutional facilities in their role as end users of the product which can

²⁰ Along with composting, anaerobic digestion can also be considered as a circular after-use pathway for plastic packaging, in line with ISO 18606. However, as the Foundation believes the use of anaerobic digestion is currently limited for plastics packaging as at the date of publication, this appendix focuses on composting.

²¹ European Bioplastics, Factsheet *Bioplastics – Industry standards & labels, Relevant standards and labels for bio-based and biodegradable plastics* (2017).

no longer be used for its intended purpose. This includes returns of material from the distribution chain.

4. 'At scale' implies that there are significant and relevant geographical areas, as measured by population size, where the packaging is actually composted in practice.

Further explanatory notes

- a. As per ISO 18606, a package is industrially compostable if it meets the following criteria:
 - Characterisation: identification and characterisation of components prior to testing;
 - Biodegradation: conversion of at least 90% of organic carbon to CO₂ within 26 weeks under controlled composting conditions (at +58°C +/-2°C);
 - Disintegration: disintegration is considered satisfactory if within 12 weeks under controlled composting conditions, no more than 10% of the original dry mass of a package remains in the oversize fraction after sieving through a 2,0 mm sieve (at +58°C +/-2°C)
 - Compost quality: the compost obtained at the end of the process does not cause any negative effects;
 - Maximum concentration of regulated metals: it does not exceed a given concentration of regulated heavy metals and other substances hazardous to the environment.
- b. As per ISO 18606, a package is considered compostable only if all the individual components of the package meet the compostability requirements specified. If the components can be easily, physically separated before disposal, then the physically separated components can be individually considered for composting.
- c. Compostable plastic can be composted in a municipal or industrial facility as well as, if it is designed to be home compostable, in a collective or at home as a complementary after-use option where relevant - see 'Composting' definition.
- d. In line with ISO 14021 and US FTC Green claims, a marketer should clearly qualify compostability claims to the extent necessary to avoid deception, e.g. taking into account if one component is not compostable or if the item cannot be composted safely or in a timely manner in a home compost pile or device. For example, the US FTC Green guide states: "§ 260.7 Compostable Claims: *"To avoid deception about the limited availability of municipal or institutional composting facilities, a marketer should clearly and prominently qualify compostable claims if such facilities are not available to a substantial majority of consumers or communities where the item is sold."*
- e. This 'compostable' definition applies at a global level for global commitments: it is a characteristic of packaging and is not linked to any local context or specific geographical area. It does not imply that it will be composted in every geographic area where it is put on the market. Local context and available infrastructure should be taken into account when claiming compostability in a specific geographic area.

The term 'biodegradable' should not be confused with 'compostable'. 'Biodegradability' designates a property which is needed - among others - to make a package compostable. It does not indicate whether a plastic package can in practice be collected and composted following a managed process (e.g. how quickly and under what conditions it can biodegrade).

5. Set an ambitious recycled content target

In a circular economy, products and components are to be made from as much recycled content as possible (where legally and technically possible). This enables a reduced dependence on virgin (fossil) feedstocks, and creates a demand-pull for recycled plastics, sending a clear signal stimulating investments in the collection, sorting, and recycling industry.

It is important that industries with requirements for high-quality materials, such as the packaging industry, maximise the use of recycled content (keeping in mind regulatory constraints, such as food contact and health and safety regulations). Firstly, because keeping materials at their highest utility and value at all times maximises the number of possible future use-cycles of the material. Secondly,

because if all plastics were to be recycled with significant quality or value loss - for example, if all plastic packaging were to be recycled into lower-quality applications - the 'high-quality industries' such as packaging would remain dependent on continuous virgin material input.

As part of the Global Commitment, recycled content commitments aim to increase the use of post-consumer recycled content (as defined below).

Definition: Post-consumer recycled content

Proportion, by mass, of post-consumer (1) recycled material in a product or packaging.

Note

1. ISO14021's usage of term clarifies post-consumer material as material generated by households or by commercial, industrial and institutional facilities in their role as end users of the product which can no longer be used for its intended purpose. This includes returns of material from the distribution chain.

Source: ISO 14021:2016 modified, *Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling), Usage of terms*, modified (focus on post-consumer recycled material)

Further explanatory notes

- a. While in a circular economy it is encouraged that pre-consumer waste is kept in the system, the priority is to avoid such pre-consumer waste as part of an efficient production process. This definition therefore excludes pre-consumer recycled content (ISO 14021, *Usage of terms, Recycled content*: Pre-consumer recycled content includes materials diverted from the waste stream during a manufacturing process).
- b. Transparency on the nature of the recycled content (i.e. post-consumer versus pre-consumer) is to be ensured whenever possible.
- c. As referred to in ISO 14021, the percentage of recycled material (by weight) shall be mentioned when a claim of recycled content is made, separately stating the percentage of recycled content used in products and packaging, without aggregating it.
- d. Amounts and quality of packaging made out of recycled content should be in line with relevant food contact and health and safety regulations where a packaging is put on the market.
- e. To verify or certify the use of recycled content, various verification systems from different assurance bodies exist.

6. Increase the share of renewable content from responsibly managed sources

As fossil feedstocks cannot be regenerated in any reasonable timescale, their extraction and use is a linear process and can therefore not be part of a long-term solution. Moving towards a circular economy for plastic packaging includes, over time, decoupling from finite (fossil) feedstocks. This is achieved first and foremost by drastically reducing the need for virgin plastics through dematerialisation, reuse and recycling, and then, over time, by switching the remaining virgin inputs (if any) to renewable feedstocks where this is proven to come from responsibly managed sources and to be environmentally beneficial.

In order to avoid unintended consequences it is important to ensure for all renewable feedstock responsible sourcing and regenerative agricultural principles are applied (taking into account the impacts of the agricultural processes, including land use, and any impact on food security and biodiversity).

To the Foundation's knowledge, as at the date of publication, no comprehensive and widely accepted definition, standard or certification scheme for responsibly managed sources exists. Their development is encouraged to ensure a clear framework for related commitments and actions.

Definition: Renewable material

Material that is composed of biomass²² from a living source and that can be continually replenished. When claims of renewability are made for virgin materials, those materials shall come from sources that are replenished at a rate equal to or greater than the rate of depletion.

Source: ISO 14021:2016, *Environmental labels and declarations — Self-declared environmental claims (Type II environmental labelling)* - Sections 7.14.1. Usage of term and 7.14.2. Qualifications.

Further explanatory note

- a. ISO 14021: "An unqualified claim of renewability shall only be made when the product consists of 100% renewable material, allowing for de minimis amounts of non-renewable materials being contained in that material. Otherwise, renewability claims shall be qualified as follows:
 - a) where a claim of renewable material content is made, the percentage by mass of renewable material to the total mass shall be stated;
 - b) the percentage of renewable material content (mass fraction) for products and packaging shall be separately stated and shall not be aggregated."

Definition: Renewable content

Proportion, by mass, of renewable material in a product or packaging.

Further explanatory notes

- a. The assessment of "renewable content" is done either through the direct measurement of biomass or bio-based carbon content in a product, or by a calculation. As plastic producing facilities sometimes use both fossil and renewable feedstocks at the same time, a certified mass balance approach could be applied to calculate and certify renewable content.
- b. Renewable content can be made from bio-based materials (biomass or biogenic carbon), although it should be noted that bio-based materials are not always renewable.
- c. Claims made on renewable content (biomass content, bio-based carbon content) should only be made in relation to the total mass or total carbon in the product.
- d. Amounts and quality of packaging made out of renewable content should be in line with relevant food contact, health and safety regulations where packaging is put on the market.

²² ISO 14021:2016: Biomass is defined as a "material of biological origin excluding material embedded in geological formations or transformed to fossilised material. Note 1 to entry: This includes organic material (both living and dead) from above and below ground, e.g. trees, crops, grasses, tree litter, algae, animals and waste of biological origin, e.g. manure (modified: part on renewable energy excluded); ISO/IEC 13273-2:2015, *Energy efficiency and renewable energy sources — Common international terminology — Part 2: Renewable energy sources*, Biomass definition: Note 1 to entry: The biomass includes waste of biological origin. Note 2 to entry: The material includes animal by-products and residues and excludes peat.