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Position Paper

Sustainability perspectives across the globe

www.worldpackaging.org

Sustainability perspectives across the globe

Nerida Kelton

Vice President Sustainability & Save Food

World Packaging Organisation (WPO)

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Looking through the lens of World Packaging Organisation (WPO) members the world of Sustainability is ever-evolving, dynamic and in a flux of change.

As a part of the recent Sustainability & Save Food Working group meeting some 21x countries, including Finland, Austria, Italy, Poland, Ireland, Wales, Scotland, England, United States of America, South Africa, Ghana, Kenya, Vietnam, United Arab Emirates, Israel, India, China, the Philippines, Thailand, Australia and New Zealand, came together to discuss the latest trends, barriers, challenges and initiatives within their country and region.

What is interesting is that the sentiment is the same in every corner of the globe, in that, whilst a lot is happening in circular and sustainable design, a lot more needs to be done to realistically be able to meet packaging and waste targets globally, regionally and locally. The common themes look at designing out waste at the start, eliminating problematic materials, phasing out single use plastics, incorporating more recycled content into products, and ensuring that the materials and packaging that is put out into the market is in fact capable of being collected, sorted, recycled, reprocessed and put back into other solutions.

WPO providing resources and tools

The World Packaging Organisation (WPO) has also been developing a number of tools and resources to help guide members to design out waste at the start and to ensure that the formats are recyclable and designed with the end in mind.

Global Packaging Design for Recycling Guide

The global 'Packaging Design for Recycling Guide' has been developed by the WPO, Circular Analytics, FH Campus University of Applied Sciences and ECR Community.

In order to be able to apply recyclable packaging design, a certain fundamental knowledge of sorting and recycling processes is necessary. Packaging must, therefore, be suitable for state-of-the-art sorting



and recycling processes in addition to its basic functions (e.g., storage, transport, product protection, product presentation and convenience).


The 'Packaging Design for Recycling Guide' is a starting point to understand Best Practice examples using state-of-the-art technology that can then be applied and tailored to suit the recovery and recyclability capabilities and infrastructure on a regional and local level.

The Global Packaging Design for Recycling Guide is available in multiple languages including English, German, Spanish, Arabic, Czech, Georgian and Hungarian.


All of the guides are available to access free of charge on the WPO website with more translations underway. <https://www.worldpackaging.org/wpo/45>


Waste Stream Mapping Guides

The World Packaging Organisation (WPO), in conjunction with FH Campus University of Applied Sciences, Austria and ECR Community, have also launched the Waste Stream Mapping Guides as the second stage of the Global Packaging Design for Recycling Guide program.





WASTE STREAM MAPPING TOOLS







JAPAN



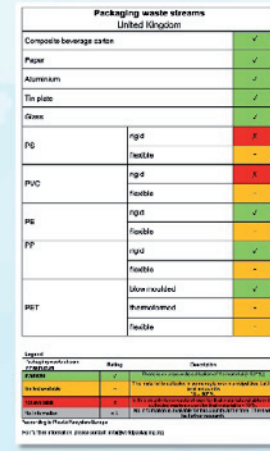



SPAIN





UNITED KINGDOM





21 COUNTRIES

Australia • Austria • Belgium • Brazil • Denmark • Finland • France • Germany • Greece • Hungary • Ireland • Japan • Luxembourg • Netherlands • New Zealand • Russia • Spain • Sweden • Switzerland • United Kingdom • United States of America

Circular Design is only effective when the relevant collection, sorting and recycling streams exist. From the mapping of the Waste Streams, we can better determine technically recyclable packaging types in countries across the world.

The Waste Stream Mapping Guides are essential global decision-making tools that will enable anyone to access current information on technically recyclable packaging across the world.

There are 21x country waste stream mapping guides available including Australia, Austria, Belgium, Brazil, Denmark, Finland, France, Germany, Greece, Hungary, Ireland, Japan, Luxembourg, Netherlands, New Zealand, Russia, Spain, Sweden, Switzerland, United Kingdom and the United States of America. More country guides will be available in 2023.

The guides also come with a 'How to Use Guide' for the Global Packaging Design for Recycling Guide so that they can be used hand-in-hand when packaging is being designed.

Please use the country-specific waste stream mapping guides alongside the Global Packaging Design for Recycling guide.

WPO Members Sustainability Programs & Initiatives

Key initiatives and programs that are being developed across the WPO member countries include:

1. Moving soft plastics and flexible packaging to mono material formats that can be recycled and/or reprocessed through Advanced Recycling facilities, Kerbside collection or Return to Store programs.
2. Developing Extended Producer Responsibility (EPR) Regulations.
3. Establishing Plastics Pacts and roadmaps for the country or region.
4. Creating Deposit Return Schemes/Container Deposit Schemes.
5. Building facilities for recycled content.
6. Establishing Single Use Plastics (SUP) Regulations.
7. Improving Materials Recovery Facility (MRF) capabilities and technologies.
8. Building Advanced/Chemical Recycling facilities.
9. Developing Consumer Education for Recycling.
10. Creating on-pack labelling programs to help guide consumers to recycle correctly.

Global Research & Reports

With so much happening around the world daily, WPO members find it difficult to stay up to date with research and reports. The WPO Sustainability & Save Food working group strives to share important reports with the members. Just some of the recent research that was shared at the latest working group committee is as follows.

Are plastics out-performing alternatives when it comes to greenhouse gas emissions?



Climate Impact of Plastics Report – McKinsey: This report examines the total GHG contribution of plastics versus its alternatives, including product life cycle (cradle to grave) and impact of use. The objective is to contribute to the dialogue on material choice and broaden the available fact base for the evolving discussion around plastics.

The analysis is based on the United States in 2020, with sensitivities to illustrate the impact in other regions and how results will change as we move toward a decarbonised world in 2050. McKinsey found that plastics offer lower

greenhouse gas (GHG) emissions than alternatives in 13 out of 14 cases, including for grocery bags, beverage containers, pet food packaging, and fresh meat packaging.

However, a shift towards a lower-carbon economy in the lead-up to 2050 could narrow the gap in emissions between plastics and alternatives like aluminium, highlighting the importance of contextual factors in determining the performance of different materials.

<https://www.mckinsey.com/industries/chemicals/our-insights/climate-impact-of-plastics?cid=app>

Are plastics out-performing alternatives when it comes to greenhouse gas emissions?

Key findings:

The business-as-usual outlook is unsustainable. The projections in OECD - OCDE's Global Plastics Outlook: Policy Scenarios to 2060 suggest that in the absence of additional policies, by 2060:

- Global plastics use is projected to nearly triple from 2019 levels, driven by economic and population growth - with the largest increases are expected in emerging economies in Sub-Saharan Africa and Asia.



- Recycled (secondary) plastics are projected to grow quicker than virgin (primary) plastics and double their market share, they are projected to make up only 12% of total plastics use in 2060
- Plastic waste is on course to almost triple, with half of all plastic waste generated still being landfilled and less than a fifth recycled.
- Plastic leakage to the environment is projected to double to 44 million tonnes (Mt) a year, exacerbating environmental and health impacts. Microplastic leakage is projected to increase in all regions, highlighting the need for better mitigation solutions.
- Greenhouse gas emissions (GHG) from the plastics lifecycle are projected to more than double, to 4.3 Gt CO₂.

https://www.oecd-ilibrary.org/environment/global-plastics-outlook_aa1edf33-en

CEFLEX MRF Study

CEFLEX have been working on a comprehensive experimental study of how more than 200 different flexible packaging samples behave in the most common optical sorting process generated concrete insights and will drive design recommendations for the flexible packaging sector – with CEFLEX stakeholders getting first access to insights from September 2022.

<https://ceflex.eu/what-can-and-cannot-be-sorted-for-recycling-major-testing-programme-advances/>

RecyClass Publishes the Design Book to Support the Plastic Industry in Designing Recyclable Packaging

RecyClass Design Book is a practical guide clarifying the concepts of recyclability and design for recycling which are based on a science-driven approach. Design Book provides a step-by-step explanation and guidance on how to design rigid and flexible plastic packaging to make it compatible with recycling, ultimately making it circular. It defines general principles and explains how the RecyClass Design for Recycling Guidelines are to be interpreted.

https://recyclclass.eu/wp-content/uploads/2022/06/RecyClass_Design-Book_digital_June-2022.pdf

<https://recyclclass.eu/news/recyclclass-publishes-the-design-book-to-support-the-plastic-industry-in-designing-recyclable-packaging/>

4evergreen guidance on the improved collection and sorting of fibre-based packaging for recycling



The 4evergreen Alliance has released its new Guidance on the Improved Collection and Sorting of Fibre-Based Packaging for Recycling. This document reviews the existing legislation and the Collection and Sorting scenarios in Europe and offers fact-based recommendations to perfect such systems a key step in increasing fibre-based packaging recycling rates in Europe.

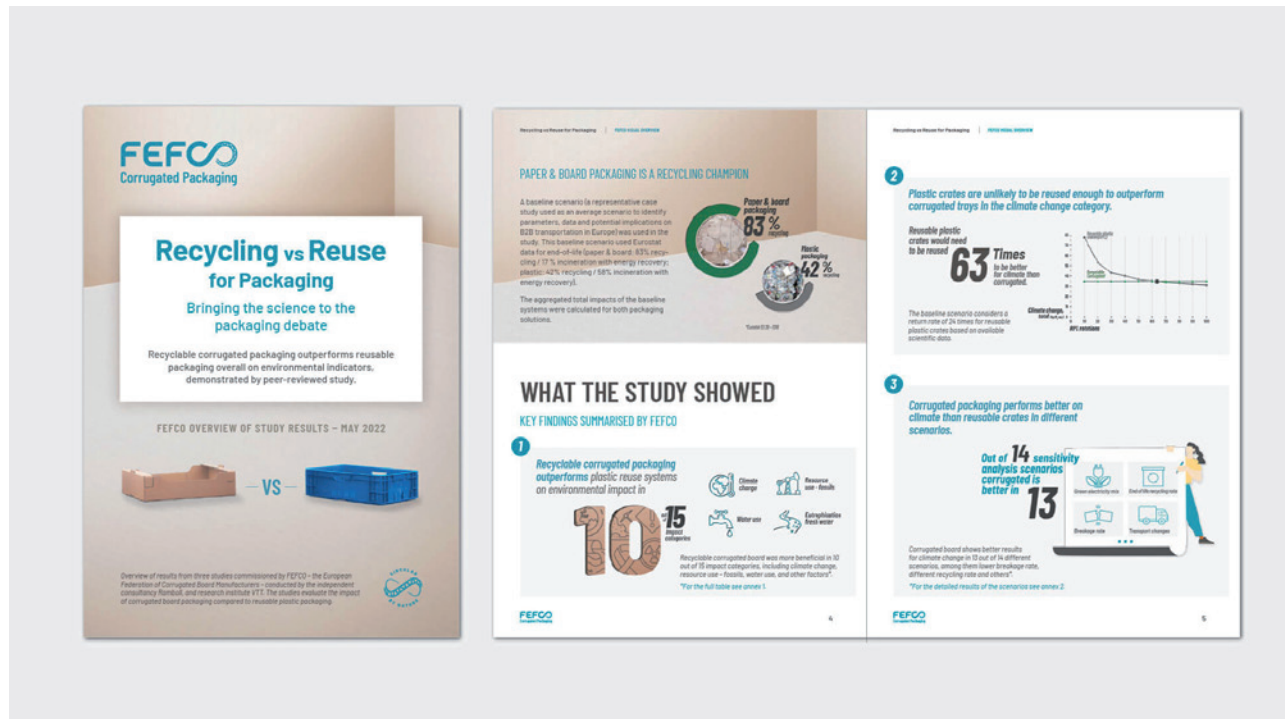
<https://4evergreenforum.eu/about/guidelinesandprotocol/>

FEFCO Recycling vs Reuse for Packaging – bringing the science to the packaging debate

The three studies released by FEFCO were conducted by an independent consultancy (Ramboll) and

a research institute (VTT). The studies evaluate the impact of recyclable corrugated board packaging compared to reusable plastic packaging and revealed a series of important conclusions.

https://www.fefco.org/sites/default/files/2022_06_15_Press%20release%20FEFCO%20scientific%20studies%20on%20reusable%20packaging_0.pdf



Where Does Plastic in the Great Pacific Garbage Patch Come From?

The Ocean Cleanup has published its latest findings on the composition, origins, and age of plastic debris accumulating in the Great Pacific Garbage Patch (GPGP). These findings add to their understanding of the plastic pollution problem, helping them to refine their cleaning strategy and gain insight into the origins of this plastic.

The new study published today in Scientific Reports reveals 75% to 86% of plastic debris in the Great Pacific Garbage Patch (GPGP) originates from fishing activities at sea. Plastic emissions from rivers remain the main source of plastic pollution from a global ocean perspective.



Plastic lost at sea has a higher chance of accumulating offshore than plastic emitted from rivers, leading to high concentrations of fishing-related debris in the GPGP. New findings confirm the oceanic garbage patches cannot be cleaned solely through river interception and highlight the potentially vital role of fishing and aquaculture in ridding the world's oceans of plastic.

<https://theoceancleanup.com/updates/the-other-source-where-does-plastic-in-the-great-pacific-garbage-patch-come-from/>

Country & Regional Reports

As a part of the Sustainability & Save Food working group all WPO members have the opportunity to provide updates on what the world of sustainability looks like in their country or region. Highlights from just some of the country reports are mentioned below.

Finland

Single Use Plastics Implementation

Art. 4 consumption reduction 2022-26, has a target to reduce consumption of SUP-packaging of ready-to-eat food. The challenges discussed included that some definitions are missing, there are no plastic-free alternatives for all included packaging (yoghurt pots for example).

Austria

Recycling and Recovery Development

Within the implementation of the Single-Use Plastics (SUP) Directive there have been framework conditions and specific goals established for the expansion of reusable systems for beverage packaging.

- From 2024: reusable systems for beverage packaging in food retail (sales area > 400 m²) with a reporting obligation to the packaging coordination office.
- From 2025: single-use deposit (€ 0,25) for plastic bottles and beverage cans between 0,1L and 3L, exceptions. for milk.

>> *corresponding regulation in preparation*

- Marking of disposable and reusable beverage packaging ("Einweg"/"Mehrweg") on e.g. the storage rack.

Austria is looking at Eco-modulation by 2023.

>> *implementation in preparation*

- From July 3, 2024: single-use plastic beverage containers may only be placed on the market if their plastic closures and lids remain attached to the containers.

- From 2030 onwards: only plastic packaging that can either be reused or recycled may be placed on the market.
- New reporting obligations from 2022 for reusable packaging, single-use plastic products and sales packaging as well as recycled content in PET beverage bottles (reporting obligation from 2023) or in all plastic beverage bottles (reporting obligation from 2028).

Austrian Development and Resilience Plan 2020-2026: legal framework conditions for increasing the collection rates for plastic beverage packaging and increase the supply of reusable containers in food retailing – “Österreichischer Aufbau- und Resilienzplan 2020-2026”.

- promotion of reverse vending systems and reusable washing facilities.
- promotion of construction and retrofitting of sorting plants.

Italy

European Green Deal

In the case of packaging, sustainability is often confused with end-of-life packaging waste management capacity. End-of-life management in Italy follows the rules of the European Community. From an environmental point of view, the legislation of packaging and packaging waste, fits into the broader context of the European Green Deal.

The European Green Deal is a new growth strategy that aims to transform the EU into a fair and prosperous society, with a modern, resource-efficient and competitive economy where there are no net emissions of greenhouse gases in 2050 and where economic growth is decoupled from resource use.

The environmental ambition of the Green Deal will not be achieved by Europe acting alone. The drivers of climate change and biodiversity loss are global and are not limited by national borders.

https://climate.ec.europa.eu/eu-action/european-green-deal_en#european-green-deal

Recovery vs Recycling

The Italian Member highlighted that unfortunately, requirements such as recyclability, which the legislature are looking at more closely, are to date still difficult for companies to meet because they are linked to large differences between European countries in the way they separate collection and start recycling, and in many cases the differences are also expressed in the territorial scope of the individual member state.

After all, a packaging's ability to be recycled depends on how well it is collected separately, which in turn is influenced by the appropriate Consumer information on the label.

To date, EU countries are working in random order, each introducing their own specific legislative requirements on label claims that complicate post-consumer management of packaging.

To date, at the Italian level, the following can be considered recyclable:

- Paper
- Glass
- Metals
- Plastics: PET bottles, PE and PP packaging
- Composite/coupled packaging, especially when made of different materials, is still difficult to recycle

Italian Labelling regulations

Some European countries are requiring mandatory environmental labeling. In Italy as of Jan. 1, 2023, the obligation to include alphanumeric coding of the material on the label according to Dec, 97/129 and indications for separate collection comes into effect.

Guidelines on Environmental Labeling of Packaging - Environmental Labeling of Packaging (<https://etichetta-conai.com>)

The region is waiting for MITE (Ministry of Ecological Transition) to confirm the approach of the Guidelines already in circulation.

Plastics Pacts for Poland, India & Kenya

The Ellen MacArthur Foundation's Plastics Pact Network connects national and regional initiatives around the world to implement solutions towards a circular economy for plastic.

The network includes national plastic pacts in the UK, France, Chile, the Netherlands, South Africa, Portugal, the US, Poland and Canada. Regional pacts include the European Plastics Pact and the Australia, New Zealand and Pacific Islands (ANZPAC) Plastics Pact.

In 2022 a number of countries across the globe have published their Plastic Pact roadmaps including Poland, India, Kenya and the ANZPAC regional pact.



These are countries facing many challenges in closing the loop of plastic packaging.

In order to respond to them, the Pacts have set themselves the following objectives:

1. Define a list of redundant or problematic packaging and eliminate it through redesign and innovation.

2. 100% of the packaging is recyclable or reusable (India or compostable).
3. India 50%/Kenya 40% of packaging is effectively recycled.
4. India 25%/Kenya 15% share of secondary raw materials in plastic packaging.

Poland Roadmap https://lnkd.in/eVpdh_yt

India Roadmap: <https://lnkd.in/djqBK2ye>

Kenya Roadmap: <https://lnkd.in/dXDMcWpA>

ANZPAC Regional Roadmap <https://anzpacplasticspact.org.au/>

ANZPAC Roadmap to 2025: Progressing action towards a circular economy for plastics

The ANZAPC Plastics Pact, of which WPO Member the AIP are a supporting association, has developed a roadmap that outlines the approach required by key players across the entire plastics value chain to achieve the ANZPAC Regional Plastic Targets by 2025. It identifies and outlines the responsibilities of each organisation across the supply chain and aligns them to the major outcomes of each Target. <https://anzpacplasticspact.org.au/>

This roadmap is the result of extensive discussions between more than 100 organisations across Australia, New Zealand and the Pacific Islands over the past year and highlights what can be achieved when we work together as a region to overhaul our relationship with plastic packaging and develop long-term sustainable solutions.

<https://documents.packagingcovenant.org.au/public-documents/ANZPAC%20Roadmap%20to%202025>

In addition Canada launched their baseline report and South Africa published a series of 10 industry briefs focused on actions for a circular economy.



Canada

Canada Plastics Pact released their Baseline Report.

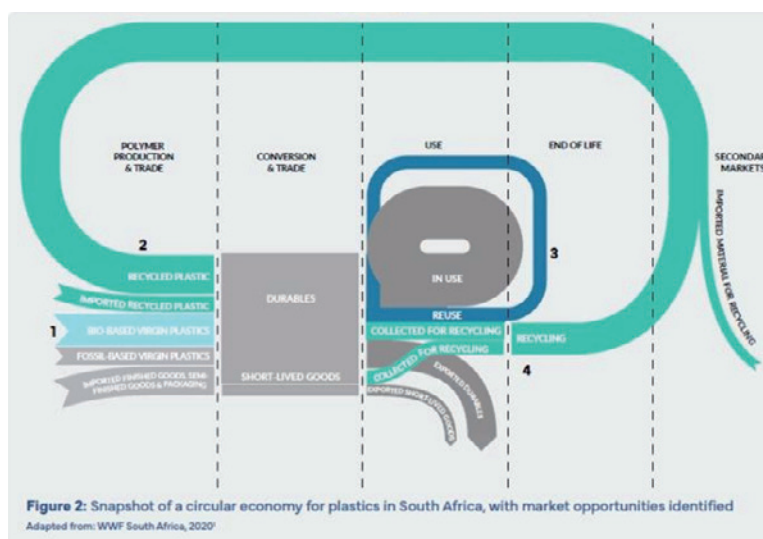


The Report marks an important starting point for the CPP and its efforts to transition to a circular economy for plastic packaging in Canada, with an emphasis on collaboration to drive the systems change required. While there's a long road ahead towards full circularity, since the CPP's launch in 2021, approximately 90 Partners are now actively involved in achieving the goals outlined in CPP's Roadmap to 2025.

<https://plasticspact.ca/wp-content/uploads/2022/07/CPP-2020-Baseline-Report.pdf>

South Africa Plastics Pact

The SA Plastics Pact, in partnership with the World Bank's PROBLUE Initiative, GreenCape, WWF South Africa, WRAP, ACEN Foundation and SAPRO, has published a series of 10 industry briefs focused on actions for a circular economy in South Africa. A circular economy for plastics has projected net economic and job creation benefits in both developed and developing country settings. South Africa has good potential to realise the benefits in a circular economy for plastics, building on expertise in both the plastics production and recycling sectors.



<https://www.saplasticspact.org.za/2022/06/21/circularity-in-plastics-in-south-africa/>

United Kingdom

FlexCollect project



Mondelez International is contributing to the £2.9m Flexible Plastic Fund FlexCollect project, the largest pilot for household collections and recycling of flexible plastic packaging ever undertaken in the UK. The Pilot will inform how to incorporate flexibles into existing collection services across different geographies and demographics, developing best practice. This industry led project, initiated and led by the Flexible Plastic Fund (FPF) benefits from cross- industry expertise of leading industry and government partners, including DEFRA, UK Research and Innovation (UKRI), SUEZ, RECOUP, LARAC & WRAP.

<https://ecosurety.com/news/fpf-flexcollect-the-uk-s-biggest-flexible-plastic-household-collection-and-recycling-pilot-goes-live/>

Global Plastics Policy Centre (GPPC)

An analysis of more than 100 plastic policies from around the world is available at a new free online platform. The Global Plastics Policy Centre (GPPC), is a 'one stop shop' of independent, evidence-based advice on plastic policy. The new website from the University of Portsmouth's Revolution Plastics research initiative comes under the GPPC umbrella, which was launched by Revolution Plastics at COP26. The GPPC online platform is designed to give governments and businesses the evidence needed to make informed, evidence-based decisions around plastic policies and give citizens the knowledge to understand the actions being taken. <https://plasticpolicy.port.ac.uk/>

RECOUP 'Recyclability by Design' case studies

The RECOUP 'Recyclability By Design' case studies set out to illustrate to users and designers of plastic packaging how Design for Recyclability principles can be applied to ensure that their packaging

can be recycled and can display accurate messaging to the consumer. The case studies provide examples of packaging where the switch of material works counter to the recyclability and circularity of the packaging.

<https://www.circularonline.co.uk/wp-content/uploads/2022/08/materials-substitution-case-study-final-1660649190.pdf>

IGD Best practice guide for packaging lifecycle assessment (LCA)

The IGD guide will help the sector undertake packaging LCAs in a standardised way and enable organisations to make decisions to reduce the environmental impact of their packaging. Lifecycle Assessment is a valuable tool, enabling organisations to make decisions to help reduce the environmental impact of their packaging. IGD has developed this guide in collaboration with the food and consumer goods industry, encouraging transparency and consistency of environmental claims. It aims to support design decisions that lead to a significant reduction in environmental impacts in line with our shared ambition: to halve the environmental impacts of the UK packaging system by 2030.

<https://www.igd.com/social-impact/sustainability/article-viewer/t/best-practice-guide-for-packaging-lifecycle-assessment-lca/i/29953>

Ireland

Ireland passes nationwide Circular Economy Act to minimise its waste and emissions.

Initiatives like single-use packaging levies, incentives for sustainable alternatives, waste management enforcements and fossil fuel reduction will be introduced to drive the country towards a circular future.

The Irish Government passed the Circular Economy and Miscellaneous Provisions Act 2022 recently in a landmark move, making it an integral part of the nation's law. The Act lays the groundwork necessary for Ireland to steer away from its 'take-make-dispose' linear model and towards more sustainable means of production and consumption.

Some significant changes being introduced under this Act include:

- Levies on all single-use packaging with the aim of progressively phasing out all single-use packaging from the supply chain.
- Incentives for the use of sustainable alternatives such as reusable products and making sustainable options more accessible.
- Mandates on the segregation of commercial waste.
- Ending the issuing of new licenses for the extracting and mining of coal, oil, and gas.

<https://www.gov.ie/en/press-release/4546a-landmark-circular-economy-act-signed-into-law/>

Ireland is preparing to change the way it recycles with its upcoming deposit return scheme. It is

estimated that Ireland generates about three billion single-use plastic bottles and over 582 million aluminium cans each year. Only around 60% of these bottles and cans are collected for recycling.

To tackle this challenge, Ireland is preparing to introduce a deposit return scheme (DRS). Ireland's deposit return scheme is set to be a 'return-to-retail scheme'. This means that retailers will play a vital role and run a return point in their stores for consumers to return their bottles and cans.

Wales

Why is Wales an outlier in UK recycling rates?

UK waste from households recycling stats released today show Wales far outperforming other UK nations for at least the tenth year running:

- Wales 56.5%
- Scotland 41.0%
- England 44.0%
- Northern Ireland 49.1%
- UK average 44.4%

Wales – currently ranked third in the world in domestic recycling – was the only nation to uphold its rates during the pandemic, with England, Scotland and Northern Ireland all seeing a drop in performance. The new stats reveal Wales to be the only UK nation to reach the minimum 50% recycling target set by the European Union. Wales has set its government focus in recent years to concentrate on the nature and climate emergencies. Food waste has been collected separately from households from across the whole of Wales for the last decade.

<https://gov.wales/new-stats-why-wales-outlier-uk-recycling-rates>

Scotland

Single Use Plastics Ban

Scotland's single use plastic ban is exempt from the UK Internal Market Act from 12 August 2022, allowing the ban to be fully effective. The single use plastic items listed below are fully banned in Scotland unless an exemption applies (e.g., single use plastic straws). From 12 August, when the exclusion to the Internal Market Act is in place, the ban is completely effective and it is unlawful to make and supply commercially the items below, regardless of whether they are produced or first imported into another part of the UK.



From 12 August, when the exclusion to the Internal Market Act is in place, the ban is completely effective and it is unlawful to make and supply commercially the items below, regardless of whether they are produced or first imported into another part of the UK.

http://www.moray.gov.uk/moray_standard/page_142358.html

United States of America

How2Recycle returns PP to 'widely recycled' level

Two years after downgrading rigid polypropylene (PP) containers to 'check locally', the How2Recycle labelling system in the United States of America has returned the material to its previous status, determining at least 60% of the country has access to PP collection. Demand for recycled polypropylene (rPP) has consistently outpaced the supply of those containers available to recycle. Plastic recyclers have always supported including PP. Since PET, HDPE and PP containers comprise 81% of consumer facing plastic packaging, it makes sense to ensure that those three material types at a minimum are included in local programs.



Ghana

Over \$16 million invested in bottle-to-bottle rPET in Ghana

The Mohinani Group has invested \$16 million into Ghana's first bottle-to-bottle recycling plant. This bottle-to-bottle recycling plant will supply food-grade recycled polyethylene terephthalate (rPET) that will create new bottles and other high-quality food-grade packaging produced per global standards.

<http://www.mohinani.com/>

Vietnam

Australia launches new plastics hub in Vietnam

To help address the global plastics pollution problem, the Plastics Innovation Hub Vietnam (Hub Vietnam) has launched, and aims to significantly reduce plastic waste in the country through collaboration and using science and innovation to develop solutions. Based in Hanoi, Hub Vietnam is an initiative of Aus4Innovation, a development assistance program sponsored by Australia's Department of Foreign Affairs and Trade (DFAT), managed and co-funded by the CSIRO, and delivered in partnership with Vietnam's Ministry of Science and Technology. This hub will identify new approaches in reducing plastic waste, and support Vietnam's pledge to reduce the flow of plastics into the ocean by 75 per cent by 2030. Hub Vietnam is part of the CSIRO's Ending Plastic Waste Mission, which aims to

change the way we make, use, recycle and dispose of plastics.

<https://www.packagingnews.com.au/sustainability/australia-indonesia-partner-to-tackle-plastic-pollution>

United Arab Emirates UAE

The UAE has Approved 22 Policies to Accelerate its Shift to a Circular Economy.

The 22 new policies will contribute to addressing challenges the private sector is facing in its shift to a circular economy and support the country's green development drive. UAE Circular Economy Council's policies will focus on four main sectors of manufacturing, food, infrastructure and transport. The members highlighted eight relevant innovation trends, including waste-to-resource, reuse, internet of waste, artificial intelligence, remanufacturing, bio-based materials, blockchain, and repair.



<https://u.ae/en/about-the-uae/strategies-initiatives-and-awards/federal-governments-strategies-and-plans/uae-circular-economy-policy>

Israel

As a newer member of the WPO it was wonderful to hear about the initiatives that are happening in Israel.

- Regulations that were discussed included Deposit Return Schemes, Recycled plastics-Characterisation of PP recyclates according to EN 15345 and Recycled plastics-Characterisation of PE recyclates according to EN 15344.
- In terms of recycling in the country there are now 2 new PET recyclers B2B and a number of projects that are focused on the circular economy-closing the loop using recycled materials.
- In the Israel environmental arena there is work being undertaken on MFA-material flow analysis of Aluminum, PP and HDPE and also Reusable packaging.
- UNIDO also developed a project in Israel that relates to circular economy pilots in the plastic

chain value including a packaging redesign consortium and Recycling flexible packaging.

- A waste strategy is being developed by the Ministry of Environment with a look to move from 80% landfill in 2020 to 20% landfill in 2030 and to full circularity in 2050.

India

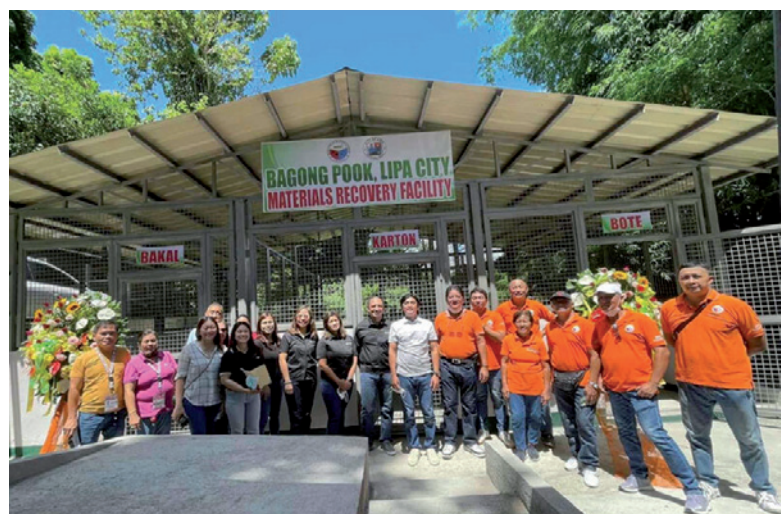
India introduce ban on some Single Use Plastics (SUP)



India's Ministry of Environment, Forest and Climate Change announced that from the 1st of July 2022, the country will ban select single use plastics, including cutlery, straws, carrier bags, and trays, that it claims have 'low utility and high littering potential'. The Ministry says that the single-use plastics included in the ban will be earbuds and balloons with plastic sticks, plastic flags, sweets and ice cream sticks, polystyrene used for decoration, plastic cutlery and tableware, straws, trays, wrapping or packing films around sweet boxes, invitation cards, and cigarette packets, plastic or PVC banners less than 100 microns, and stirrers. <https://pib.gov.in/PressReleaselframePage.aspx?PRID=1745433>

Philippines

Nestle has handed over a Materials Recovery Facility (MRF) to Barangay Bagong Pook, Lipa Batangas, led by their Lipa Factory. Through the MRF, the community will be able to segregate and reduce the volume of solid waste that goes to landfills while the residents and barangay generate income through recycling.



<https://businessmirror.com.ph/2022/08/02/tackling-solid-waste-nestle-ph-turns-over-materials-recovery-facility-in-lipa-city/>

DOST Simulation Packaging Testing Lab

The Department of Science & Technology (DOST) have established The SPTL (Simulation Packaging Testing Laboratory) will be the first performance testing lab for transport packaging in the Philippines which targeted to assist the different Philippine industry sectors in the areas of packaging design and engineering, performance testing, and development of standards for transport packaging used in the distribution of goods, and even in packaging used in the e-delivery service.



Research and Development

- The Green packaging laboratory is also part of the DOST program to research on new material type that may be used and utilised for packaging.
- Their current Research is acquiring waste fibre from pineapples and developing it into polymer that may be used for future packaging.
- Currently they have successfully created film like material which yellow orange in colour by drying out the pigments.
- Currently they are researching this material for use in an extruder machine by polymerising the material they have acquired from the pineapple husks.

<https://www.dost.gov.ph/knowledge-resources/news/62-2019-news/1620-ph-s-first-simulation-packaging-testing-lab-soon-to-rise-on-dost-grounds.html>

Philippines EPR bill on plastic products

On July 22, 2022, the Philippines enacted the Extended Producer Responsibility Act of 2022, Republic Act (RA) No. 11898, which requires enterprises (producers of products generating plastic packaging waste with total assets of P100 million or more) to develop and implement an EPR program and collect plastic packaging.

The Bill also requires for producers of plastic products to formulate an EPR Program to reduce the manufacture, export, supply and use of plastic products and a Recovery Program to achieve plastic neutrality. In this regard, the Bill sets out targets for recovery of plastic product footprint generated during the immediately preceding years starting December 31, 2023 – 20%, 40% (2024), 60% (2025), 70% (2026) and 80% (2027).

The plastic products covered under the Bill are: “bags, containers, food service necessities, packaging, and promotional materials, or any other non-healthcare products using synthetic polymers as a major component, or as one of the laminates or layers thereof, utilised to carry or protect goods for transportation, distribution, and sale, or to promote these products or services, and are designed to be discarded after their use” and specifically include:

- Single-or multi-layered sachets, labels, and other flexible plastic packaging products.
- Rigid plastic packaging products such as beverage, food, household, personal care and cosmetic products, including their coverings, caps and lids.
- Plastic bags.
- Plastic products used for goods sold in business-to-business transactions.
- Polystyrene; and
- Multilayer plastic packaging materials.

https://enviliance.com/regions/southeast-asia/ph/report_5378

The Excise Tax on Plastic Bags

The House of Representatives on Nov. 14 2022 approved on third and final reading House Bill 9171 or the Excise Tax on Plastic Bags, seeking to impose a P100 excise tax on single-use plastic bags, which have long been said to be a major cause of environmental pollution. The Bill will target supermarkets, malls, shops, stores, sales outlets, and other establishments. The bill defines ‘single-use plastic bags’ as ‘secondary level plastics made of synthetic or semi-synthetic organic polymer such as ‘ice,’ ‘labo,’ or ‘sando’ bags, with or without handle, used as packaging for goods or products’.

Food Grade Recycled Plastics Approvals in Asia

Japan is the only Asian country with a regulatory framework for food-grade recycled plastics. However, acceptance of recycled plastics in food appears to be taking a new turn across Asia: In 2020, South Korea’s Ministry of Food and Drug Safety amended the law to allow the use of rPET in food contact materials; Thailand’s Food and Drug Administration has also initiated a review process to consider the use of rPET and rHDPE in food contact materials. In September 2021, the Indian government also amended the Plastic Waste Management Code to allow the use of recycled plastics in food packaging.

Thailand

Breakthrough for recycling in Thailand

The Thailand government recently announced that rPET is now allowed in food-contact packaging.

ALPLA and PTTGC have opened a plastics-recycling plant in Thailand.



Following 18 months of construction and installation, the ALPLA Group (Hard, Austria) and PTT Global Chemical PLC have opened the state-of-the-art ENVICCO recycling plant in Thailand. With an annual production capacity of 45,000 metric tons of recycled PET and HDPE (30,000 tons of recycled, food-grade PET and 15,000 tons of recycled HDPE), it is one of the largest recycling plants for these plastics in Asia. With this plant, the two companies will strengthen the region's circular economy and supply the growing markets with high-quality recycled material. The 30,000-square-metre plant is on a plot of land measuring a good 90,000 square metres at the Map Ta Phut Industrial Estate.

<https://www.chemengonline.com/alpla-and-pttgc-open-plastics-recycling-plant-in-thailand/>

Australia

APR Plastics Advanced Recycling Technology

Victorian-based APR Plastics, sister company to Australian Paper Recovery and APR Kerbside, is finding success in its trial of running polyethylene (PE) and polypropylene (PP) through its advanced recycling technology and transforming plastic waste into oil. They were looking for ways to capture that waste product and not send it to landfill, as it is a valuable resource



in its own right once processed have been introduced to Plastoil, which is the Australian distributor of BioFabrik's advanced recycling technology. Just this year, the Dandenong South advanced recycling company became the first in Australia to receive and operate BioFabrik's pyrolysis WASTX machine, which is designed to turn 100 per cent of soft plastic in either oil, gas or asphalt material.

<https://wastemanagementreview.com.au/plastics-into-oil-at-apr-plastics/>

New SME Australasian Recycling Label Marketplace

A new education campaign recently launched in Australia to help raise awareness among small businesses about the benefits of adopting the Australasian Recycling Label (ARL) and taking action to improve the sustainability of their packaging. The new initiative will be delivered by the

Australian Institute of Packaging (AIP), the National Retail Association (NRA), the Australian Food and Grocery Council (AFGC) and Australian Packaging Covenant Organisation (APCO) and aims to educate 20,000 small businesses about the benefits of using the ARL on-pack.

The ARL is an on-pack label that provides easy-to-understand instructions to consumers about how to correctly dispose of all parts of a product's packaging. Providing consumers with accessible on-pack recycling information will make it easier for households to recycle, increasing resource recovery and reducing waste

stream contamination. The education campaign is the first part of a series of initiatives under the SME ARL Program to support small to medium-sized enterprises (SMEs) adopt the ARL on their packaging.

Through the campaign, SMEs will receive access to a range of free educational tools, resources and events designed to cut through confusion and empower them to take action to improve the sustainability of their packaging. Topics explored in the campaign include sustainable packaging options, the benefits of using the ARL for businesses, consumers and the environment, and important steps organisations can take to reach the 2025 National Packaging Targets.

A series of free online training topics will also be available, developed by the AIP, Australia's peak packaging training and education body. The training modules, along with a range of other action guides, fact sheets and toolkits will be housed on a new dedicated educational website – the ARL Marketplace – a one-stop-shop for resources and information about the ARL and sustainable packaging. Over the next two years, the SME ARL Program will deliver streamlined processes and tools to make it easier for SMEs to assess the recyclability of their packaging and apply the ARL.

<http://aipack.com.au/education/arl-marketplace/>



WPO Members strive for collaboration and knowledge sharing

With so much happening across the world the World Packaging Organisation (WPO) offers a unique platform to be able to bring together developed and developing countries together in one room to regularly and openly discuss what is happening globally, regionally and locally.

The Sustainability & Save Food working group is a strong and passionate team of packaging experts from across the world who are all working towards circular design. The group learns from one another, and we hope that members take some of the ideas and programs back to their own country to implement. The WPO recognises that no country can do this by themselves and by sharing knowledge, on not only the positive sides of sustainability, but also openly discussing challenges, barriers and learnings that have come from some of these programs, will enable all of us to have a clearer view on what needs to be done in our own regions to meet global, regional and local packaging and waste targets.

Everyone has a role to play to ensure that packaging is being designed to provide the lowest environmental impacts wherever possible and that the materials and formats are fit-for-purpose, functional and truly capable of being collected, sorted, recycled and reprocessed in the country that it is sold in.