PACKAGING EPR AND THE WORLD’S “PLASTICS CRISIS”
Specialists in global environmental packaging and product stewardship compliance.

• In June 2019, Lorax Compliance acquired Environmental Packaging International as a shared sale.

• Together, the companies provide shared strengths in compliance data and technology, as well as custom research, metrics tracking and sustainable design consultancy.
400+ businesses have now committed to the New Plastics Economy. **Targets for 2025:**

- Eliminate problematic or unnecessary plastic packaging
- Move to reuse packaging models
- 100% reusable, recyclable or compostable plastic packaging
- Increase amounts of PCR

Source: New Plastics Economy Global Commitment 2019 Progress Report, October 2019
According to EMF:
A packaging or packaging component is recyclable if its successful post-consumer collection, sorting and recycling is **proven to work in practice and at scale.**

“**In practice and at scale**” = 30% post-consumer recycling rate for at least 400 million inhabitants, or on markets where packaging is sold.

- Recyclable if over 95% of packaging by weight is recyclable
- Minor components compatible with process
WHAT’S CURRENTLY RECYCLABLE

As of today, the following plastic formats are considered recyclable by the Ellen MacArthur Foundation because they reach the 30% collection rate by a sufficient population:

• PET bottles
• HDPE bottles
• HDPE other rigid
• PP bottles
• PP other rigid
• Some flexible LDPE

Image source: Washington County, OR. “Recycling Plastics Properly.”
The Circular Economy Package went into effect on July 4, 2018.

- 70% of all packaging waste to be recycled by 2030
- All plastic packaging to be recyclable by 2030

Amended Packaging & Packaging Waste Directive is part of the CEP.

- Calls for Member States to update their packaging and textile EPR programs by July 5, 2020. Updates will include:
  - Material-specific recycling targets for product packaging through 2030
  - Establishment of EPR schemes for all packaging, textiles, and some single-use plastics by 2025
- Commission will strengthen Essential Requirements by the end of 2020
EUROPE: PLASTIC PACKAGING RECYCLING TARGETS

UK (business)
- 55% by 2019
- 57% by 2020
- 61% by 2021 (under consultation)
- 65% by 2022 (under consultation)

UK (consumer)
- 50% by 2025
- 55% by 2030

Germany
- 90% by 2019
- 90% by 2022

EU
- 50% by 2025
- 55% by 2030
PACKAGING EXTENDED PRODUCER RESPONSIBILITY (EPR)

Packaging EPR in 2000

Packaging EPR in 2019

Mandatory EPR in Effect
Voluntary EPR in Effect
EPR in Effect (province-level);
In Implementation (country-level)
In Implementation
(India and China expected by 2022)
Framework EPR Legislation

Source: EPI
THE COST OF PACKAGING EPR
CANADA 2018

Source: CSSA Report to Stewards 2019, EEQ Consultation on the 2020 Schedule of Contributions

British Columbia (100% EPR)
Citizens serviced: 4,578,000
Net cost: CAD $88,728,670
$14.55 USD per capita
78.1% recovery rate

Saskatchewan (75% EPR)
Citizens serviced: 852,331
Net cost: CAD $6,040,044
$5.36 USD per capita
78.1% recovery rate

Québec (100% EPR)
Citizens serviced: 8,345,193
Net cost: CAD $170,500,000
$15.64 USD per capita
63% recovery rate

Manitoba (80% EPR)
Citizens serviced: 1,206,959
Net cost: CAD $36,371,598
$22.97 USD per capita
77.2% recovery rate

Ontario (50% EPR)
Citizens serviced: 13,078,155
Net cost: CAD $299,307,268
$17.61 USD per capita
60.2% recovery rate

MMSM Net Cost = 100% municipal costs, 100% commodity revenues, Promotion & Education, regulatory, market development and all other program management costs

SO Net Cost = supply chain costs, commodity revenues, P&E, market development and program management costs
THE COST OF PACKAGING EPR
EUROPE 2017

Italy – Conai
- Citizens serviced: 55,000,000
- Net cost: € 524,000,000
- Number of clients*: 8,500
- Municipalities covered: 6,700
- $10.61 USD per capita

France – Citeo
- Citizens serviced: 64,850,000
- Net cost: € 665,000,000
- Number of clients*: 22,741
- Municipalities covered: 36,508
- $11.42 USD per capita

Belgium – Fost Plus
- Citizens serviced: 11,000,000
- Net cost: € 144,300,000
- Number of clients*: 5,000
- Municipalities covered: 589
- $14.61 USD per capita

*Clients = brand owners or retailers paying fees into the system
MRFs in the USA (where no packaging EPR is in place) lose an estimated $64 for every ton of material processed.

Negative values come primarily from mixed paper, glass and residual streams rather than plastic.
CITEO currently only has one EPR fee for all plastics. Beginning in 2020, there will be 7 categories for plastic packaging “to reflect the level of development of recycling facilities”:

<table>
<thead>
<tr>
<th>Plastic</th>
<th>Material Rates (ct €/kg):</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bottle and vial in clear PET</td>
<td>28,88</td>
</tr>
<tr>
<td>Bottle and vial in coloured PET, in PE or PP</td>
<td>30,92</td>
</tr>
<tr>
<td>Rigid packaging in PE, PP or PET</td>
<td>33,30</td>
</tr>
<tr>
<td>Flexible PE packaging</td>
<td>36,08</td>
</tr>
<tr>
<td>PS rigid packaging</td>
<td>38,85</td>
</tr>
<tr>
<td>Complex packaging or other resins excluding PVC</td>
<td>41,63</td>
</tr>
<tr>
<td>Packaging containing PVC</td>
<td>48,57</td>
</tr>
</tbody>
</table>

Source: CITEO 2020 rates for recycling household packaging
FRANCE: CITEO 2020 DISRUPTOR FEES

Penalty (malus) fees:

- **100%** for PET packaging using mineral opacifiers at a > 4% rate
- **100%** for bottles without a recycling channel (i.e. plastic bottles that are *not* made of PET, HDPE or PP)
- **50%** for disruptive packaging, such as:
  - Glass other than soda-lime, or glass with a disruptive infused element such as ceramic
  - Reinforced cardboard
  - Rigid colored PET combined with aluminum, PVC, or silicone
- **10%** for disruptive packaging, such as:
  - Glass with a non-magnetic steel closing system
  - Rigid plastics that are dark in color and not detectable by optical sorting, or made of PE or PP with high density
  - PET containing glass beads
  - Cardboard/paper packaging with inks with mineral oils
FRANCE: CITEO 2020 BONUS FEES

Bonus (discount) fees:

• **50%** for PE or PP packaging containing at least 50% recycled material

• **8%** for recyclability improvement (i.e. switching to a mono-material packaging system or reducing packaging units in a sales unit)

• **8%** for using complete sorting guidelines for all packaging units including Triman

• **5%** for using the Triman logo without related sorting instructions

• **4%** for awareness actions on sorting, such as on TV/radio, display, press or digital medium with purchase of space

Triman logo:
Mandatory in France. Its purpose is to provide a more understandable symbol for consumers to know what is recyclable (replaces Green Dot)
NETHERLANDS – AFVALFONDS VERPAKKING
MODULATED FEES FOR PLASTIC PACKAGING

From January 1, 2019, a lower rate applies to plastic goods that can be sorted and recycled with a positive market value.

- **Non-Recyclable Plastics:** € 0.64/kg
  - “All plastic packaging that cannot be unequivocally identified as being recyclable within the current systems of collection, sorting and recycling existing in the Netherlands”
- **Easily Recyclable Plastics:** € 0.38/kg

“Recyclable” plastic packaging materials in the Netherlands must meet four conditions:

1. Made from type of plastic that is collected, has a market value and/or is supported by a legally mandated program
2. Sorted in predefined streams for recycling processes
3. Processed and recovered/recycled using commercial recycling processes
4. Recycled plastic is used as a raw material for the production of new products
ECO-MODULATED PLASTIC PACKAGING FEES

**Germany:** In 2020, packaging expected to be classified through a “Cluster Tool.” For each cluster, a different price will apply.

**Sweden:** Effective April 1, 2019, plastics categories changed, and an increased level of fees is applied to non-recommended resins and design choices (such as labels that cover >60% of the bottles, EVOH barrier>2%, black plastic).

**Italy:** As of April 1, 2019, there are now four plastics categories with increasing fee levels based on recoverability.

**Spain:** Effective Jan 1, 2020, plastics categories are separated by component type, material and format.

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Source: Der Grune Punkt Group, March 2019. Workshop on Design4Recycling and Eco-modulation in Germany
### GLOBAL PLASTICS PACTS GOALS AND TARGETS FOR 2025

<table>
<thead>
<tr>
<th></th>
<th>UK</th>
<th>France</th>
<th>Netherlands</th>
<th>Chile</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Education Initiatives</strong></td>
<td></td>
<td>Lead awareness-raising and educational activities with the general public</td>
<td></td>
<td>Eliminate problematic or unnecessary plastic packaging and single-use utensils through redesign and innovation</td>
</tr>
<tr>
<td><strong>Elimination</strong></td>
<td>Eliminate problematic/unnecessary single-use packaging through redesign, innovation or alternative (reuse) delivery methods</td>
<td>Define a list of problematic or unnecessary packaging and take measures to eliminate them</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Reduction Target</strong></td>
<td></td>
<td>Use 20% less plastic than in 2017</td>
<td></td>
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</tr>
<tr>
<td><strong>Recyclability Target</strong></td>
<td>100% reusable, recyclable or compostable plastic packaging</td>
<td>Reusable, recyclable or 100% compostable packaging through eco-design</td>
<td>Make plastic products and packaging from 100% recyclable plastics by 2020</td>
<td>100% of plastic containers and packaging designed to be reusable, recyclable or compostable</td>
</tr>
<tr>
<td><strong>Recycling Rate</strong></td>
<td>Effectively recycle or compost 70% of plastic packaging</td>
<td>Collectively recycle 60% of plastic packaging by 2022</td>
<td>Recycle 70% of all single-use plastic products and packaging without loss of quality</td>
<td>Effectively recycle, reuse or compost one-third of plastic containers and packaging</td>
</tr>
<tr>
<td><strong>Recycled Content Target</strong></td>
<td>30% average across all plastic packaging</td>
<td>30% average in packaging</td>
<td>Minimum 35% in all single-use plastic items</td>
<td>25% average in plastic containers and packaging</td>
</tr>
<tr>
<td><strong>Members</strong></td>
<td>Coca-Cola, Danone, Nestlé, P&amp;G, PepsiCo, Unilever</td>
<td>Coca-Cola, Danone, L’Oréal, Nestlé, Unilever</td>
<td>Coca-Cola, Nestlé, Unilever</td>
<td>Amcor, Coca-Cola, Nestlé, Unilever</td>
</tr>
</tbody>
</table>

**Note:** Malaysia is in the midst of exploring its own Plastics Pact as well. South Africa is also looking at one. A US Pact is expected to be discussed at the Walmart Fall Sustainability Milestone Meeting.

www.loraxcompliance.com | info@loraxcompliance.com | www.enviro-pac.com
Questions?

Victor Bell
US Managing Director,
Environmental Packaging International/
Lorax Compliance

vbell@enviro-pac.com
+1 (401) 423-2225 ext. 800
eviro-pac.com