



## Sustainability & Food Festival

# How to eliminate single use plastic from our lives

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**Eliminating single use plastic  
from our lives – not easy !  
But possible !**

**First, let's look closely at plastics**

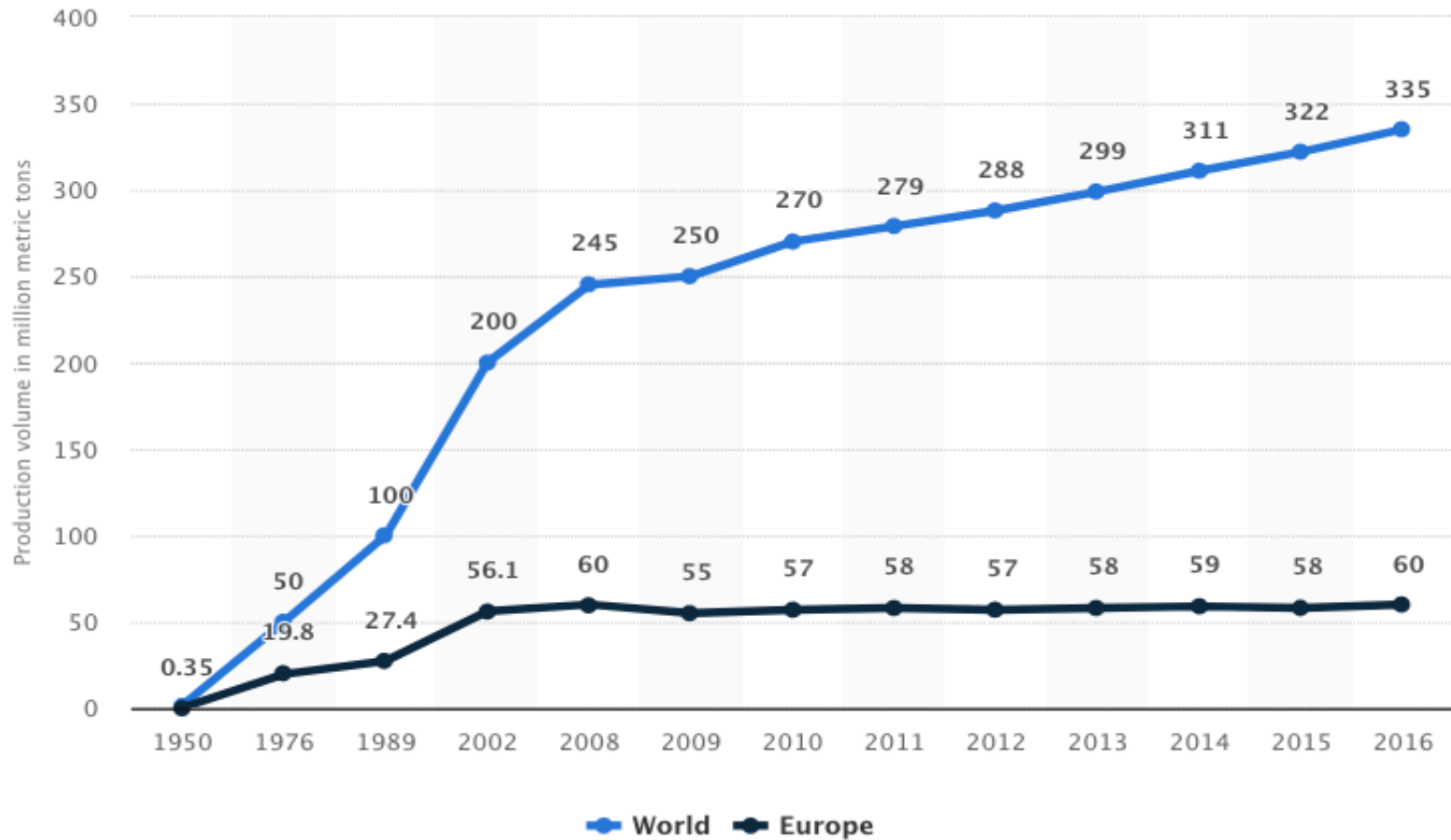
















**Early plastics – mid 19<sup>th</sup> century**

**Bakelite – early 1900s**

**Many new plastics, including those in use today, were developed in 1940s and 1950s**

**Now a huge industry ... plastics in almost everything we use.**



 <b>PETE</b>	 <b>HDPE</b>	 <b>PVC</b>	 <b>LDPE</b>	 <b>PP</b>	 <b>PS</b>	 <b>OTHER</b>
polyethylene terephthalate	high-density polyethylene	polyvinyl chloride	low-density polyethylene	polypropylene	polystyrene	other plastics, including acrylic, polycarbonate, polyactic fibers, nylon, fiberglass
soft drink bottles, mineral water, fruit juice containers and cooking oil	milk jugs, cleaning agents, laundry detergents, bleaching agents, shampoo bottles, washing and shower soaps	trays for sweets, fruit, plastic packing (bubble foil) and food foils to wrap the foodstuff	crushed bottles, shopping bags, highly-resistant sacks and most of the wrappings	furniture, consumers, luggage, toys as well as bumpers, lining and external borders of the cars	toys, hard packing, refrigerator trays, cosmetic bags, costume jewellery, audio cassettes, CD cases, vending cups	an example of one type is a polycarbonate used for CD production and baby feeding bottles
						



- Name:** Polyethylene Terephthalate (PET) (1)
- Description:** Usually clear or green, sinks in water, rigid, hard wearing, can be used as a fibre
- Uses:** Disposable drinking bottles, vegetable oil bottles, sleeping bag and pillow filling, textile fibres
- Recycled as:** soft drinks, detergent bottles, shrink wrap, carpet fibers, fleecy jackets.
- 
- Name:** High Density Polyethylene (HDPE) (2)
- Description:** Semi-rigid, sinks in water, resistant to chemicals, opaque and easily coloured
- Uses:** water bottles, bleach bottles, milk bottles, crates, chemical bottles, shopping bags
- Recycled as:** plastic timber, recycling bins, plastic pipes



- Name:** Polyvinyl Chloride (PVC) (3) X
- Description:** Semi-rigid, glossy, sinks in water, may be clear or coloured.
- Uses:** detergent / cleanser bottles, pipes, fittings, window/door frames, thermal insulation (PVC foam) and automotive parts.
- Recycled as:** speed bumps, wellington boots, flooring, mud flaps.
- 
- Name:** Low Density Polyethylene (LDPE) (4) X
- Description:** Flexible, soft not crinkly
- Uses:** 6 pack rings, bread bags, sandwich bags, ice cream containers, bin bags, black plastic sheet, rubbish bins
- Recycled as:** pallet sheets, bin bags.



<b>Name:</b>	<b>Polypropylene (PP) (5)</b>
<b>Description:</b>	Semi- rigid, low gloss - many uses.
<b>Uses:</b>	margarine tubs, straws, screw on lids, microwaveable meal trays, filaments for carpets, wall coverings and vehicle upholstery, ropes.
<b>Recycled as:</b>	car battery cases, oil funnels, pegs, trays.
<b>Name:</b>	<b>Polystyrene (PS) Expanded Polystyrene (EPS) (6) X</b>
<b>Description:</b>	Often brittle, glossy, lightweight, energy absorbing, thermal insulation.
<b>Uses:</b>	plastic cutlery, foam (hot) drink cups, takeaway food containers, meat trays, packaging chips, protective packaging for electrical and white goods.
<b>Recycled as:</b>	Coat hangers, coasters, picture frames, seed trays, building products.





## And finally, some other plastics ... (7)

**Name:** Polycarbonate, Acrylic, ABS (Acrylonitrile Butadiene Styrene)

**Description:** Polycarbonate – durable material, high impact-resistance, good electrical insulator;

**Uses:** Sunglass / eyewear lenses, safety goggles / visors, swimming goggles, vehicle headlamp lenses, electronic components, LCD screens, CDs and DVDs.

**Description:** Acrylic - very rigid and strong, can be clear, high heat and impact resistance;

**Uses:** aquariums, paint, product stands & displays.

**Description:** ABS – impact resistance and toughness;

**Uses:** automotive trim components, car bumpers, protective headgear, luggage, small kitchen appliances and toys (LEGO bricks);

**Recycled:** may be recycled into the same products.

**In addition:** If you have products made from recycled plastic all symbols 1-6 have an R in front, e.g., RPVC, RPET, etc.



**Seems like most of these plastics can be recycled; so what can't be recycled ?**

**Any type of plastic that has NO number for recycling (e.g., rubbish bags, ziplock bags, cereal box liners, bubble wrap, styrofoam packaging, clear plastic wrap, bags used to wrap some food products, e.g., meat, fish, potato chips, cheese wrappers, 6-pack plastic and candy wrappers.)**

**Any plastic that has become soiled or contaminated.**



## But how much is actually recycled ?

- The Ellen MacArthur foundation's groundbreaking investigation into plastics produced shocking findings: **95% of plastic packaging material – worth \$80-120bn each year – is lost to the global economy after a single use, and after 40 years of recycling only 5% of plastic is recycled into a similar quality item.**
- Perhaps the most devastating statistic was the finding that **by 2050 the ocean will contain more plastic than fish by weight.**





## What happens to the plastic we put in the recycling bin in Ireland ?

It is compacted in a vehicle, goes to a Waste Transfer Facility where it is picked and sorted, and the result is ...





**Baled plastic for use in Ireland or for export as RDF (Refuse Derived Fuel) or SRF (Solid Recovered Fuel, a shredded mixture of paper and Plastics).**





## So what is the fate of much of the plastic we put in our recycling bins?

**Cement plants in Ireland have regulatory approval to burn up to 340,000 tonnes of “alternative fuels” annually, and are seeking permission to use a further 800,000 tonnes of alternative fuels (mostly SRF and RDF) annually.**





**More plastic finds a “resting place” in sites like this ...**







Or in a landfill like Kerdiffstown ...

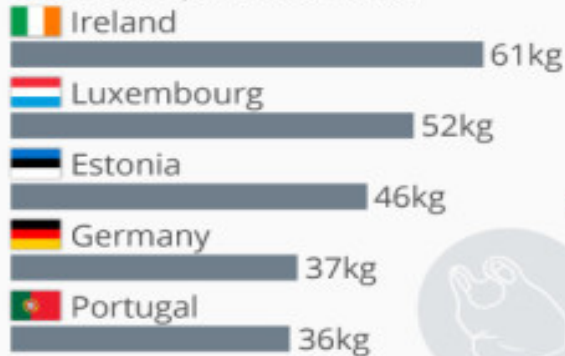




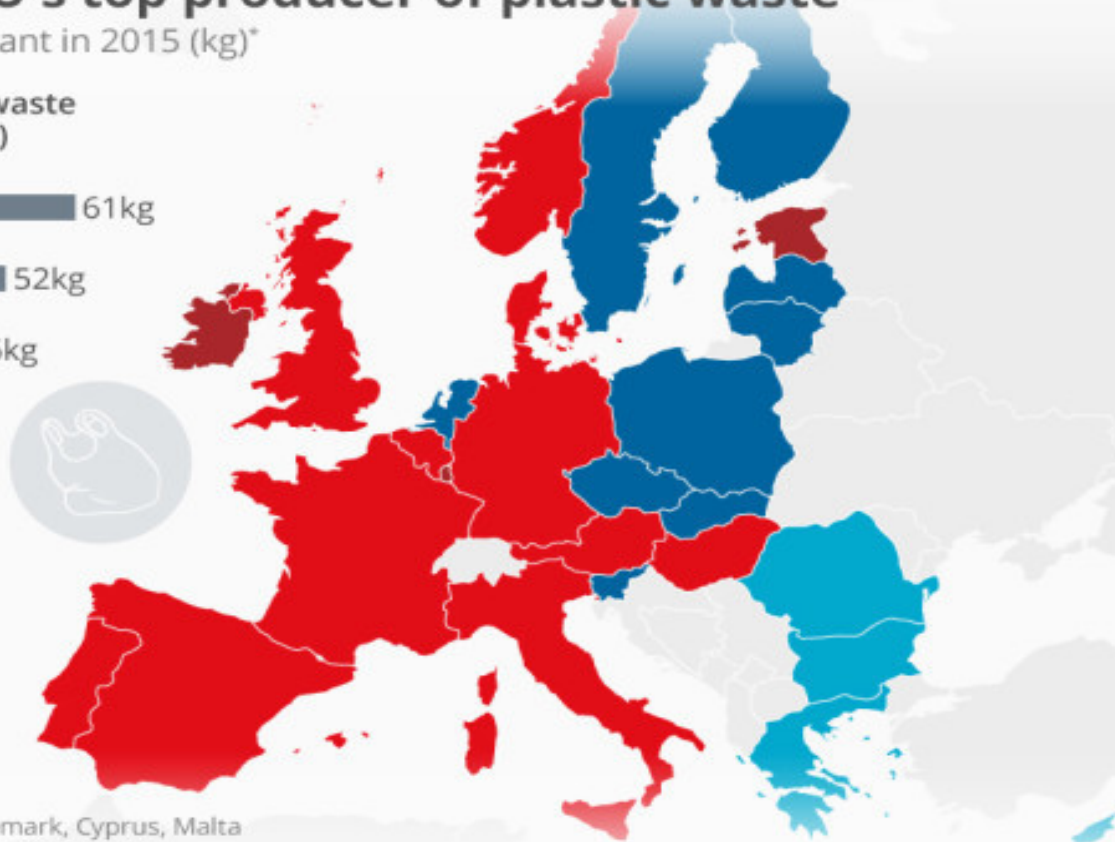
## Ireland is the EU's top producer of plastic waste

Plastic waste per inhabitant in 2015 (kg)\*

Europe's top five plastic waste offenders (per inhabitant)



Kg of plastic waste per inhabitant



\* Values from Denmark, Cyprus, Malta and Romania are from 2014



Source: Eurostat





**So whatever the official statistics say, there are very good reasons why you should not put plastics in your bin ...**

**And that means avoiding them ...**

**All plastics ?**

**Not some  
useful  
objects  
which can  
have a  
long life:**



**or**





## So how do we eliminate plastic, especially single use plastic, from our lives ?

1. Use a canvas shopping bag;
2. Ask for a cardboard box if you forgot your bag;
3. Shop local, avoid supermarkets where everything is packaged; get to know the shopkeeper and the shop assistants in your local shop (fairly easy if you shop regularly) and get the message across gently and patiently that too much packaging is bad;
4. Start a campaign to return all your packaging to the supermarket (difficult to do on your own, but if enough people deposit packaging at the shop entrance or the checkout, the message will eventually get across);
5. There is a growing number of shops that sell unpackaged groceries; use one of these shops if you can; and, if not, launch a campaign to have one in your area (or get a local shop-owner to set aside an area for unpackaged food, e.g., fruit, vegetables).



- 6. Search out, or help someone to establish a Community Supported Agriculture farm which will deliver as much as possible of your weekly food needs (usually comes in a re-usable cardboard box);**
- 7. Purchase food in glass jars, bottles or tins instead of in plastic containers (if there is a choice); the glass jars can be given to a neighbour who makes jam (or make your own jam);**
- 8. Grow as much food as you can; nature will provide the perfectly designed packaging;**
- 9. Buy a wood or bamboo toothbrush;**
- 10. Invest in reusable sandwich bags for packed lunches; avoid cling-wrap;**
- 11. Get some glass water bottles; and/or boil water, cool it, and keep it in the fridge (very refreshing drink – as good as purchased bottled water);**



12. Campaign for a deposit and refund scheme for plastic bottles, like these in Spain and Norway (if plastic bottles are returned clean, they can be more easily recycled); and just started in Lithuania (<https://greennews.ie/lithuania-teach-other-countries-how-to-manage-plastic-waste/>)





- 13. Campaign (or join a campaign) against the incineration or burning of our waste (burning discourages re-cycling);**
- 14. Encourage your neighbours and friends to avoid single-use plastics wherever possible; spread the message.**



## Key Points:

Purchase products that are not made from plastic or packaged in plastic;

- **USE** reusable shopping bags (cloth bags preferred);
- **BYOM** Bring your own mug for coffee (**eCupáns** are a good flexible example);
- **BYOB** Get a glass or metal water bottle; refill as needed, instead of buying bottled water;
- **FREEZE** foods in glass jars, not plastic bags;
- **BYOC** Bring your own non-plastic container to restaurants for leftovers (e.g. silicone or cardboard);
- **AVOID** plastic wrap on your dry cleaning;
- **BYOU** Avoid disposable plastic utensils by bringing your own metal, wooden or bamboo utensils;
- **BUY** foods in bulk when you can.

Your *eco* reusable, collapsible & portable drinks Cup





# Zero Waste

is about changing how we manage our consumption of resources.  
It means using natural resources in the most effective way, re-using as much as possible, while minimising impact on the environment and eliminating waste.

Creating a circular resource economy.

Working together for a Zero Waste Society



**ZeroWasteAllianceIreland**  
**WEB: [www.zerowasteireland.com](http://www.zerowasteireland.com)**



**Re-think**

**Recycle**

**Re-design**

**Zero Waste**

**Re-work**

**Re-use**

**GREENEARTH  
ORGANICS**  
From our farm to your door



**Thank you for listening**

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