



Plastic-free July

Would you choose a paper bag at a grocers?

EEI Colloquium Series 2021

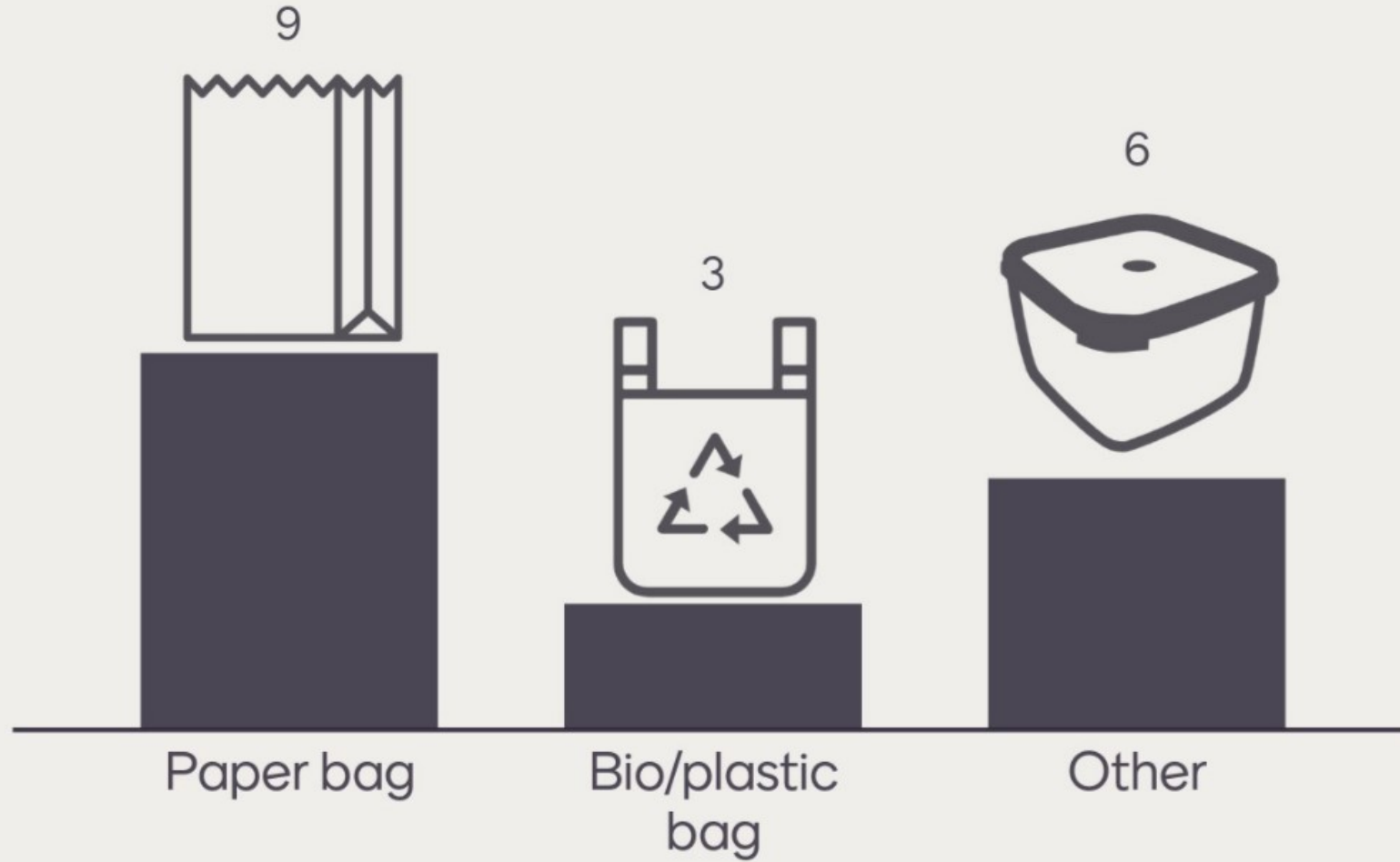
21st July 2021 – 14:00-15:00

Clare Collins



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Would you choose a paper bag?



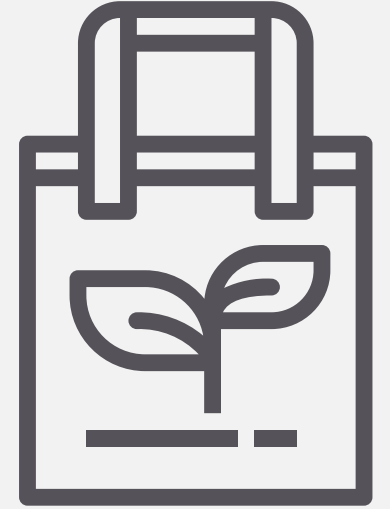
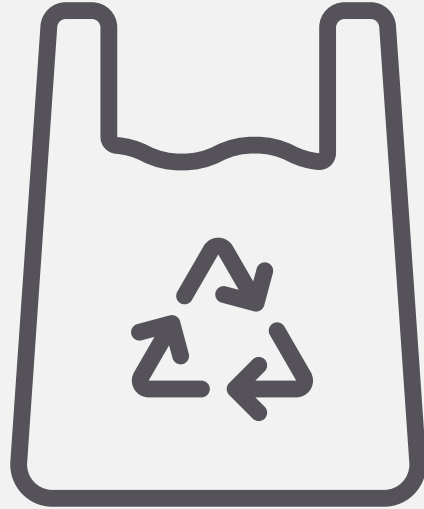
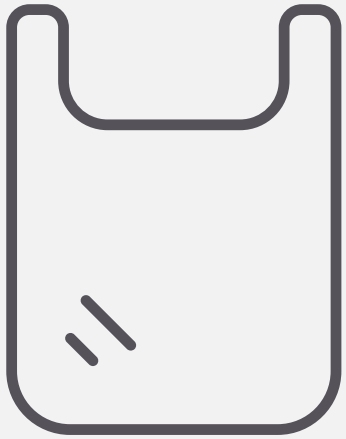
1 use =

Use 5-10 times

Use 10-20 times

Use 4-8 times

Use 50-150 times



Single-use plastic
bag (HDPE)

Bag for life plastic
bag (LDPE)

Durable plastic
bag (PP)

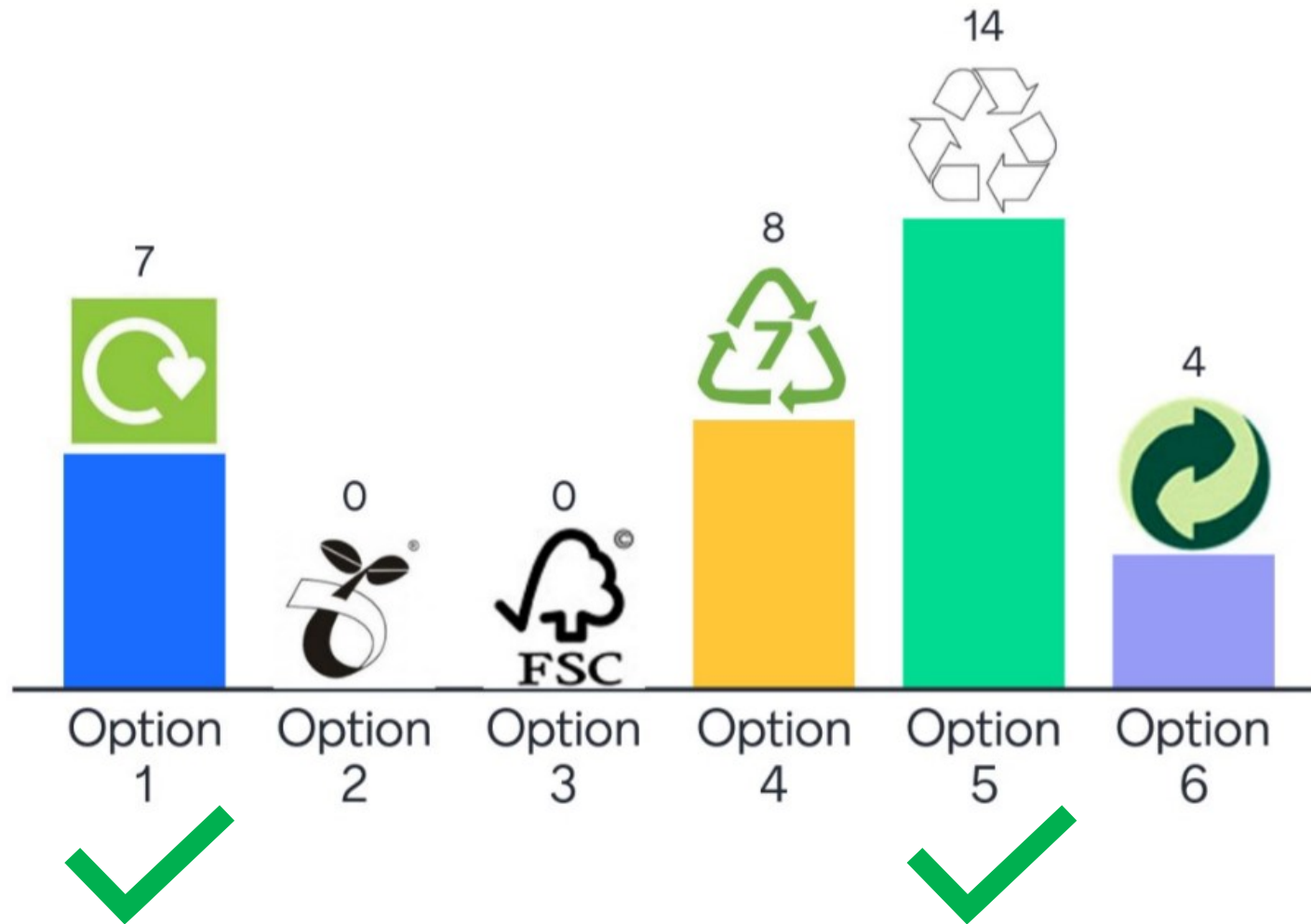
Single-use paper
bag

Reusable cotton
bag

Number of times to reuse alternative bags to match environmental impact of single-use plastic bag

Data from: United Nations Environment Programme (2020). Single-use plastic bags and their alternatives - Recommendations from Life Cycle Assessments

Which (multiple) of these labels tells you that you can recycle the product?





Overview

- About plastics
- Introducing Plastic-Free July
- Actions we can take
- Discussion and questions

What are plastics?

- Synthetic or semi-synthetic polymers
- Short for thermoplastic = mouldable using heat
- Organic compounds
 - just like wood, paper or wool
- Made from natural materials
 - mainly crude oil or natural gas, but also coal, salt (all non-renewable resources) and cellulose (renewable resource)

Different types of plastic resins

 PETE	 HDPE	 PVC	 LDPE	 PP	 PS	 OTHER
						
 Kerbside	 Some kerbside	 Difficult to recycle	 Some in shops	 Some kerbside	 Difficult to recycle	 Difficult to recycle
						

The good, the bad and the ugly...

- Recyclable
- Low emissions

- Additives
- Polymers degrade

- Leaching
- Cheap to make virgin
- Production increasing
- Many superfluous single use items
- Persistent waste – taking many 100s of years to breakdown

Core Principles for the Recyclability of Plastics



Use same material

Use mono-materials or mixed materials of the same type wherever possible. If different materials have to be used they should be different densities.



Minimise colour

Non-pigmented plastic is preferred. If colour is necessary, avoid strong colours as much as possible.



Easily separable closures

These should be easy to detach, should leave no attachments once removed and ideally be recyclable themselves.



Avoid full sleeves

If a sleeve must be used, it should be easily removable and there should be clear instructions explaining how to detach it



Small, easily removable labels

Adhesives should be used sparingly and labels should cover no more than 60% of the product's surface area, as well as being easy to remove.

Do you know what happens to your waste?



Performance Report

East Riding of Yorkshire Council

Total yield

Percentage



Total Recycled
77,844 tonnes

Annual yield from Dry Recycling, and Organic Waste.



● Dry Recycling
34,603 tonnes

● Organic Waste
43,241 tonnes

● Residual Waste
45,755 tonnes

Performance Report

Kingston upon Hull City Council

Total yield

Percentage



Total Recycled
34,591 tonnes

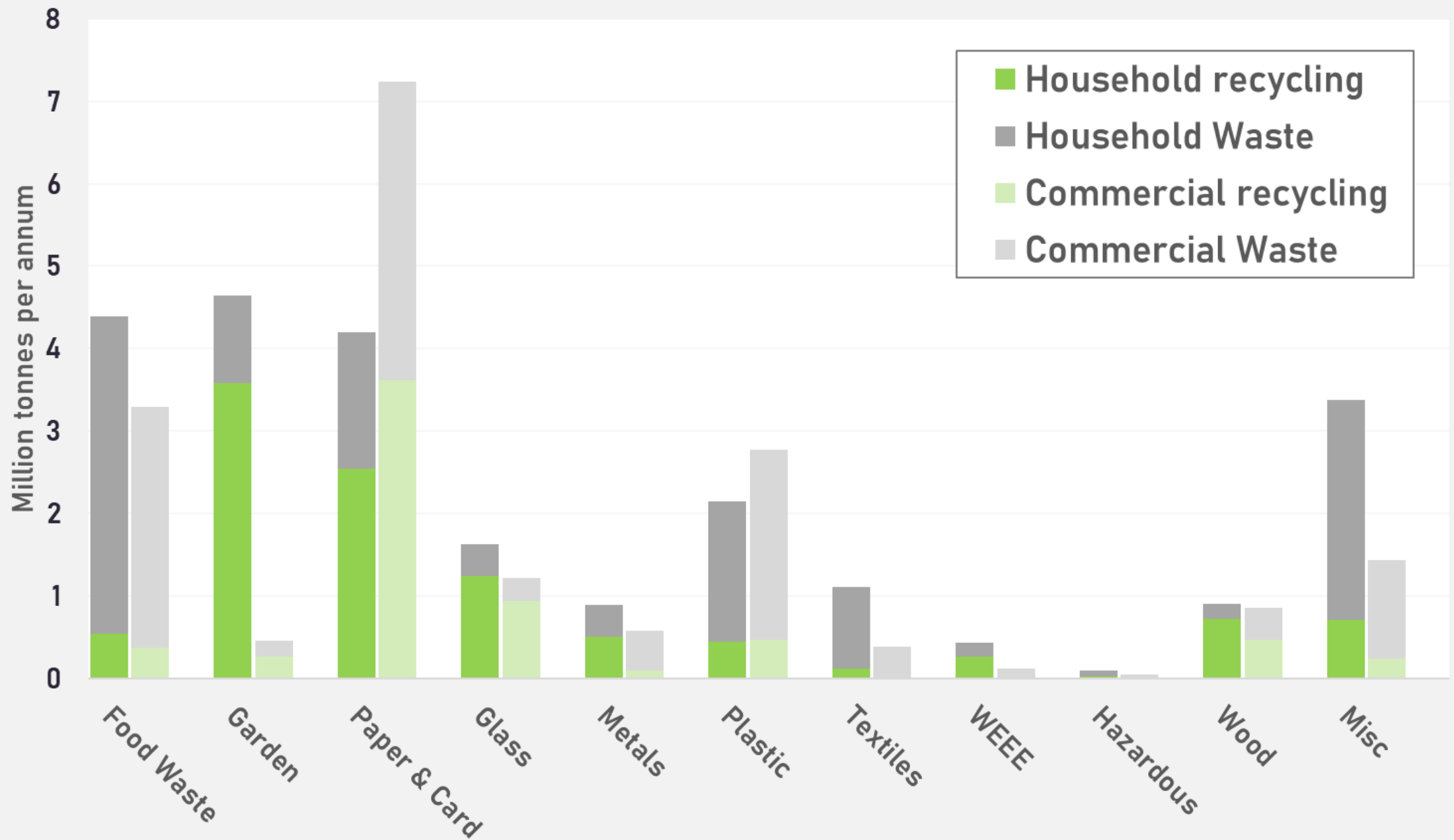
Annual yield from Dry Recycling, and Organic Waste.



● Dry Recycling
18,795 tonnes

● Organic Waste
15,796 tonnes

● Residual Waste
48,576 tonnes

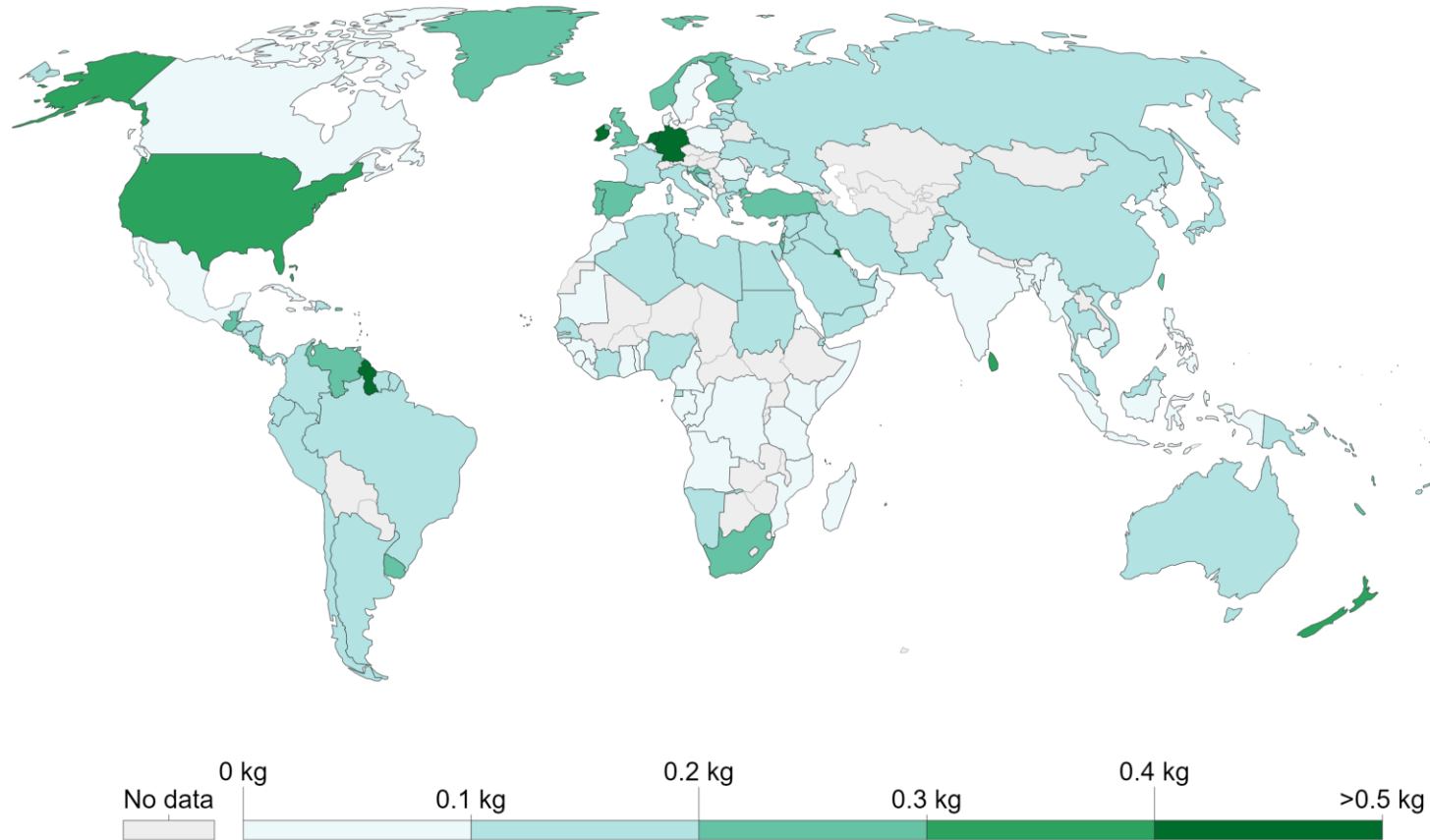


Household and commercial waste and recycling composition estimates for England, 2017 (tonnes)

Plastic waste generation per person, 2010

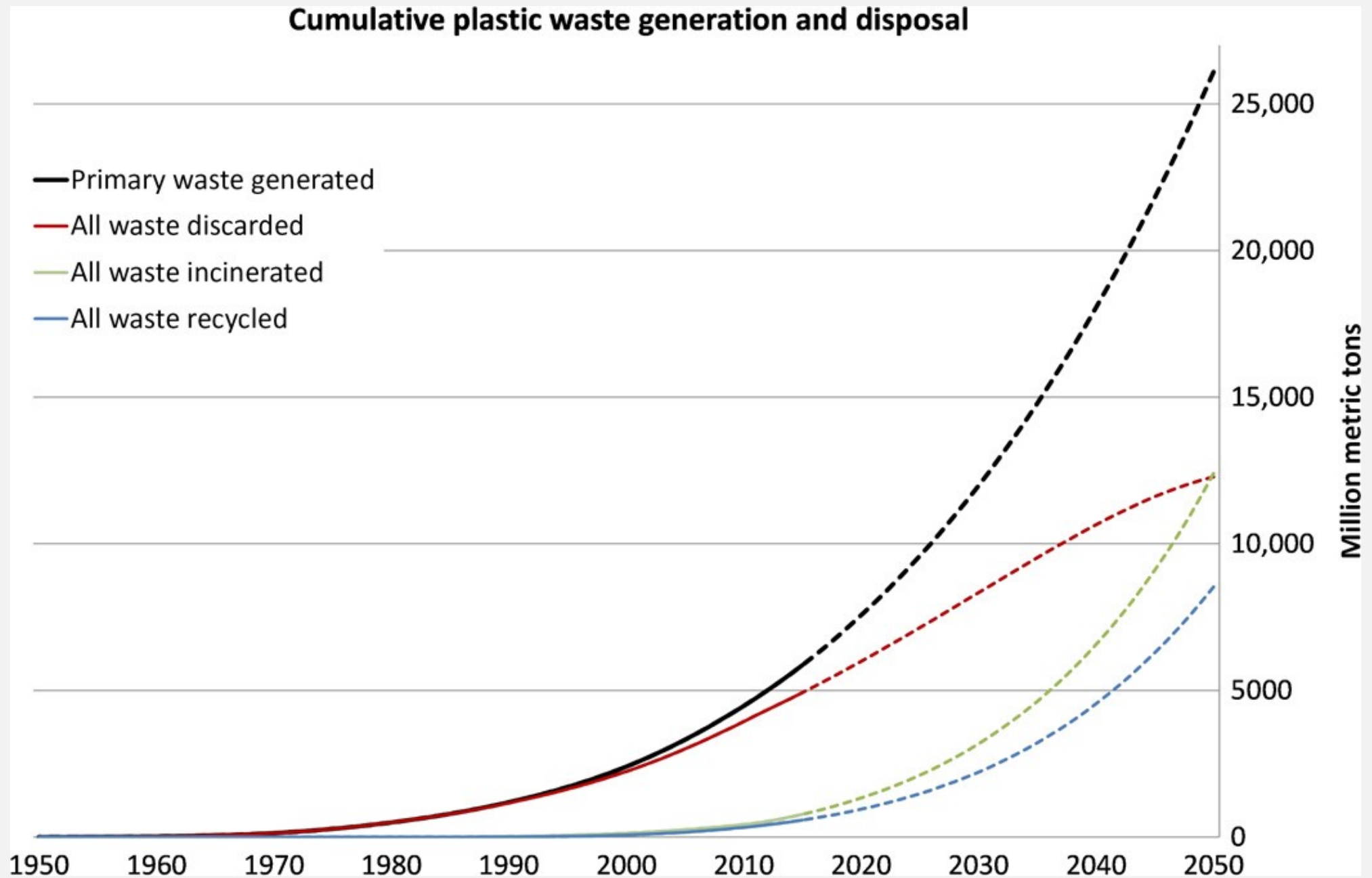
Daily plastic waste generation per person, measured in kilograms per person per day. This measures the overall per capita plastic waste generation rate prior to waste management, recycling or incineration. It does not therefore directly indicate the risk of pollution to waterways or marine environments.

Our World
in Data



Source: Jambeck et al. (2015)

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So what is 'Plastic-free July®'

- Global movement
- Encourage the move away from single-use
- To reduce plastics pollution
- So we can have cleaner streets, oceans and communities

The logo is a circular emblem with a white background. It features the words "CHOOSE TO REFUSE" in a bold, sans-serif font. "CHOOSE" is in dark green, and "TO REFUSE" is in a lighter green. A stylized globe, composed of several colored segments (green, blue, orange, and teal), is positioned between the two words. Below the main text, the words "SINGLE-USE PLASTIC" and "PLASTICFREEJULY.ORG" are written in a smaller, blue, sans-serif font, stacked on two lines.

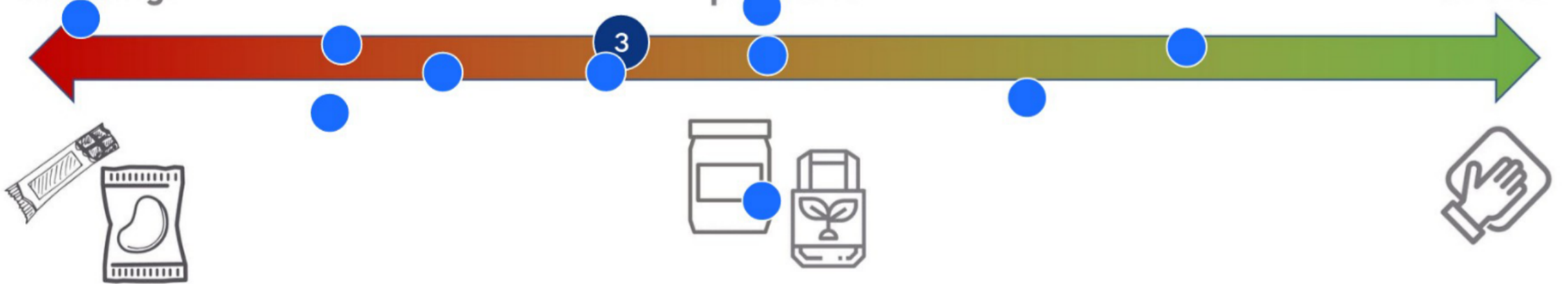
**CHOOSE
TO REFUSE**
SINGLE-USE PLASTIC
PLASTICFREEJULY.ORG

Where are you on your journey?

Crisps, drinks
bottle & chocolate
opened for
company whilst
listening!

Buy loose
in own
containers
where
possible

Dedicated
reusable
toilet
paper
user!?



What should we do as a society?

- Government policy:
 - Ban on microbeads in cosmetics (US in 2015, UK in 2018), ban on sale of straws, cotton-buds and drink stirrers (UK April 2021)
- Extended Producer Responsibility (EPR)
 - The UK plastics industry pays towards recycling costs via Packaging Recovery Notes (PRNs)
 - System needs reform as virgin plastics still more economical than recyclable plastics
- Plastic packaging is changing – to become more recyclable

What can we do as individuals?

We have already made an impact

- Public campaigns have already had an impact
 - Government policy (previous slide)
- Individual behaviour changes
 - Carrying reusable bottles, coffee cups and bags is common and single-use plastic bag usage has dropped (83% fewer bags issued 2016/17 compared to 2014)
 - Recycling is increasing

Reflect & Self
Assess

END PLASTIC POLLUTION

PLASTIC CALCULATOR

Reduce your waste (including recycling)

1  Own your bags Swap your single-use plastic bag for a reusable cotton bag	2  Have some bottle Take your own bottle for water & refill on the go	3  Clutching straws Do you need one? If so, seek reusable options	4  Carry a spork! Say no to single-use cutlery, carry your own alternatives	5  Caffeine fix... Carry your own cup for hot drinks, no guilt energy	6  Eco-protect Use washable masks to protect others & the planet	7  Wipe wisely 'No' to disposable wipes, carry wet flannel bags	8  Clean teeth & planet Purchase bamboo brushes & toothpaste tablets
9  Loose leaf tea caddy Use plastic-free tea bags or better still, a reusable caddy	10  "No packages" lunch Replace snack packs with filled reusable pots	11  Buy bulk Buy large & decant into small reusable containers	12  Sanitary swaps Change to reusable nappies, period & incontinence pads	13  Reduce & Reuse Reuse wipes/hankies; reduce plastic-wrapped tissues	14  Guilt-free takeout Ask takeaways & shops to fill your reusable containers	15  Cut the cling film Silicon covers, reusable pouches & beeswax wraps	16  Love a library Share stuff amongst family, friends & neighbours
17  Chewing plastic! Give up the gum or swap for a plastic-free version	18  Glitter-less Ready-made microplastics; use a different decoration!	19  Moo-ve on Refill reusable glass bottles for milk & juices	20  Height of fashion Bargain hunt second hand clothing & repair favourites	21  Naked bars Packaging free soap bars for hands, hair, body, shaving...	22  Bin the butt Cigarettes contain plastic - QR gives NHS advice to stop	23  Love a loofah Swap the plastic dish cloths for a vegetable that cleans!	24  Green gardening Substitute plastics outside - plastics become brittle
25  Involve the kids Don't be lured by free gifts with meals & magazines	26  Burst the balloon Why not create reusable bunting instead?	27  Craft work! Switch from plastic adhesive tape to paper-based tape	28  Hanging around Buy wood or metal clothes pegs next time you need any	29  Writing refill Replace disposable biro for refillable ink cartridge pens	30  Shop smarter Weigh up size & packaging to choose the best options	31  Sweet treats Make your own at home like yummy granola bars	Ideas by @PlasticsEnvRes researchers Design by @ClareyCollins Plastics in the Environment Research Cluster EEI - University of Hull

31 #PlasticFreeJuly swaps

We all want to do our bit for the environment, so for #PlasticFreeJuly our team of researchers put our heads together to gather some inspiring ideas to reduce plastics waste & make better choices.

Discuss

Which swaps...

...do you
already do?

...would you
like to
implement?

...would you
not be willing
to do?

<p>1</p>  <p>Own your bags</p> <p>Swap your single-use plastic bag for a reusable cotton bag</p>	<p>2</p>  <p>Have some bottle</p> <p>Take your own bottle for water & refill on the go</p>	<p>3</p>  <p>Clutching straws</p> <p>Do you need one? If so, seek reusable options</p>	<p>4</p>  <p>Carry a spork!</p> <p>Say no to single-use cutlery, carry your own alternatives</p>	<p>5</p>  <p>Caffeine fix...</p> <p>Carry your own cup for hot drinks, no guilt energy</p>	<p>6</p>  <p>Eco-protect</p> <p>Use washable masks to protect others & the planet</p>	<p>7</p>  <p>Wipe wisely</p> <p>'No' to disposable wipes, carry wet flannel bags</p>	<p>8</p>  <p>Clean teeth & planet</p> <p>Purchase bamboo brushes & toothpaste tablets</p>
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Share, borrow or buy second hand

What is the Library of Stuff?

How to Join the library, how it works and whats the cost [Click Here](#)

Library Categories



DIY



Gardening



Health & Wellbeing



Hobby / Crafting



Cleaning



Automotive



Party



Baby & Child



Technology



Camping / Outdoor



Cooking

Lengthen product life



Dispose of waste, well



#OpenLitterMap

Why should we collect data?



1. Visibility

For many people, litter has become normal and invisible. Maps are powerful because they communicate what we cannot usually see.



2. Problem solving

Our data is open and accessible. Everyone has equal, open and unlimited rights to download all of our data and use it for any purpose.



3. Community

We need your help to create a paradigm shift in how we understand and respond to pollution.



Recycling Locator

Helping you recycle and pass on your unwanted items for re-use

Where to
**Recycle a specific
item**



What to put in your
Recycling at home



Find your nearest
Recycling locations

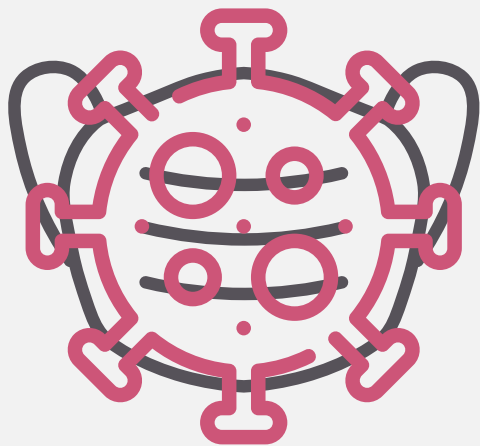


Careful of greenwashing



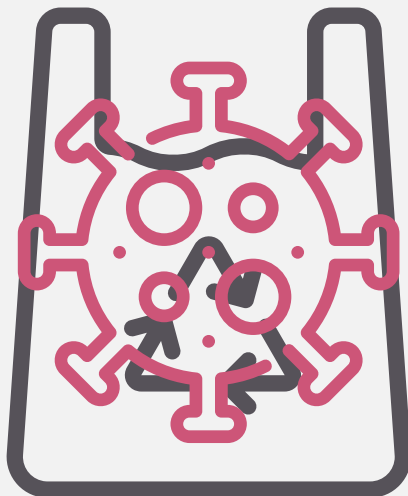
Plastics ≠ cleanliness

Surgical mask



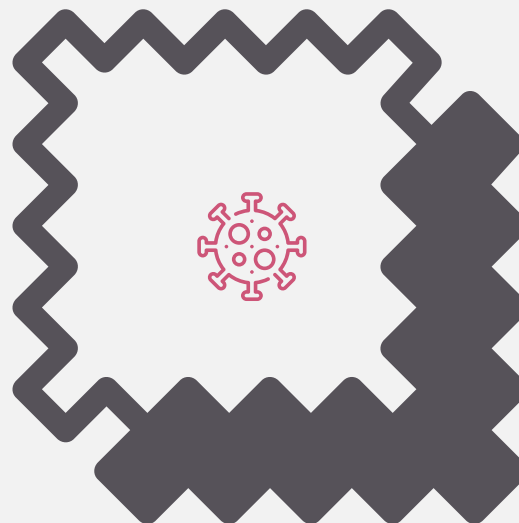
+7 Days

Plastic



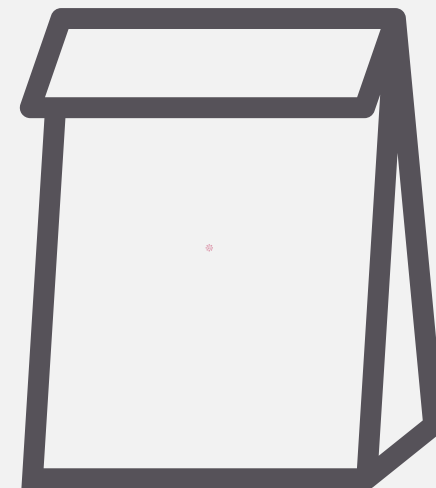
7 Days

Cloth



2 Days

Paper



3 Hours

Time until no infectious virus could be recovered on different surfaces

Using data from: Chin et al. (2020) DOI: 10.1016/S2666-5247(20)30003-3



SUSTAINABLE DEVELOPMENT GOALS

Be a good ancestor

Responsible living should be second nature, akin with wearing a seatbelt when in a car



Questions?



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Thank you for
listening

