

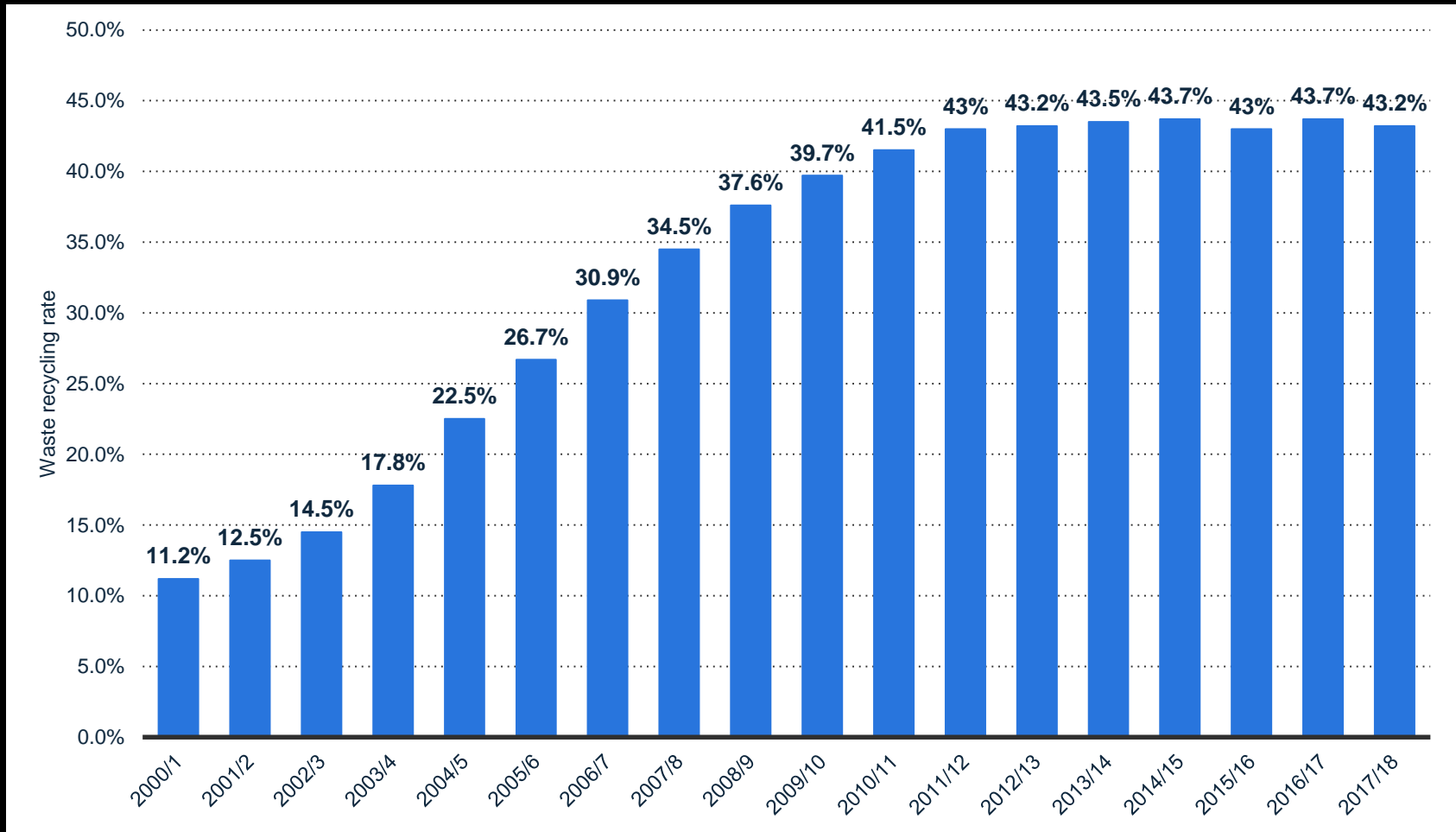
Waste recycling and secondary resources?

Mike Crang

Current shift in thinking

- From Waste diversion, waste reduction
 - Diversion from landfill
 - End of the pipe
- To creating secondary resources
 - Circular economy
 - Markets for materials

Household waste recycling rate in England from 2000 to 2018



Note: United Kingdom (England); 2000 to 2018

Further information regarding this statistic can be found on [page 8](#).

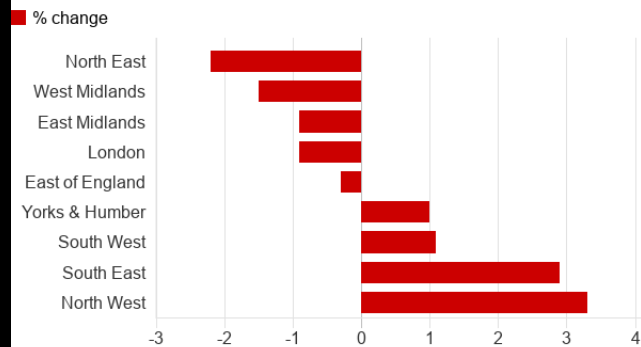
Source(s): Defra; GOV.UK; [ID 444744](#)

England municipal recycling rates 2017/18

Figure 7: Map of Household Waste recycling rates for individual local Authorities in England 2017/18

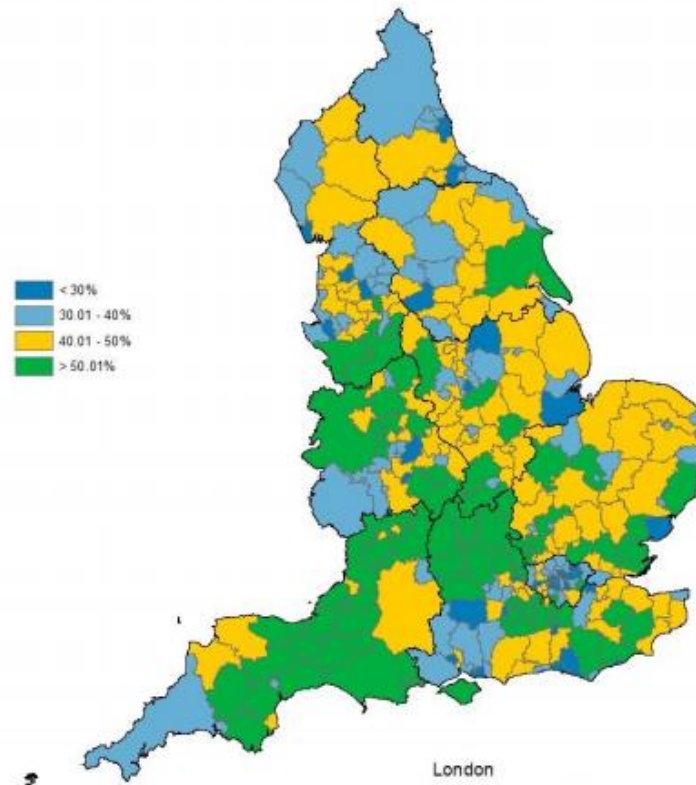
Change in household waste recycling rates

English regions, 2011-12 to 2016-17



Source: Defra

BBC



London



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Miljöstuga



Governing subjects: kalsortering

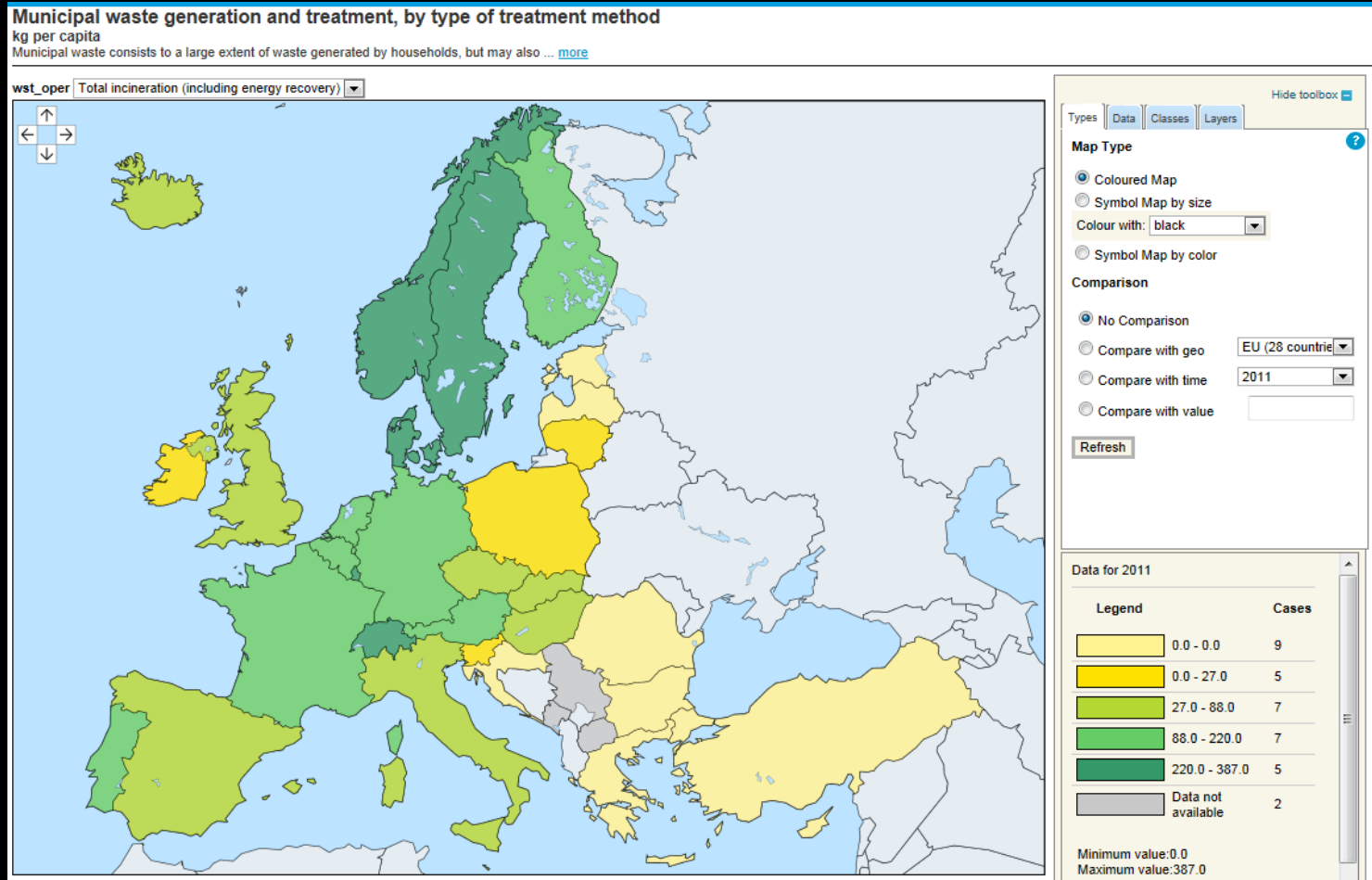
HANDBOOK IN GARBAGE / WASTE SOURCE - SORTING



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Incineration in EU



Biogas production



- Food waste post foot and mouth
- AD plants
- Electricity feed in tariff
- Low thermal level
- Vs certified inputs/ agricultural system
- ? Digestate output

Market for materials



Tack för maten!
*Methanogenium cariaci**

Tepåsar, äppelskruttar, fiskben, kaffefilter, bananskal, ostskorlar... Listan på allt matavfall som du och andra Uppsalabor sorterar kan göras lång. Avfallet går till vår moderna biogasanläggning. Där förvandlas det till

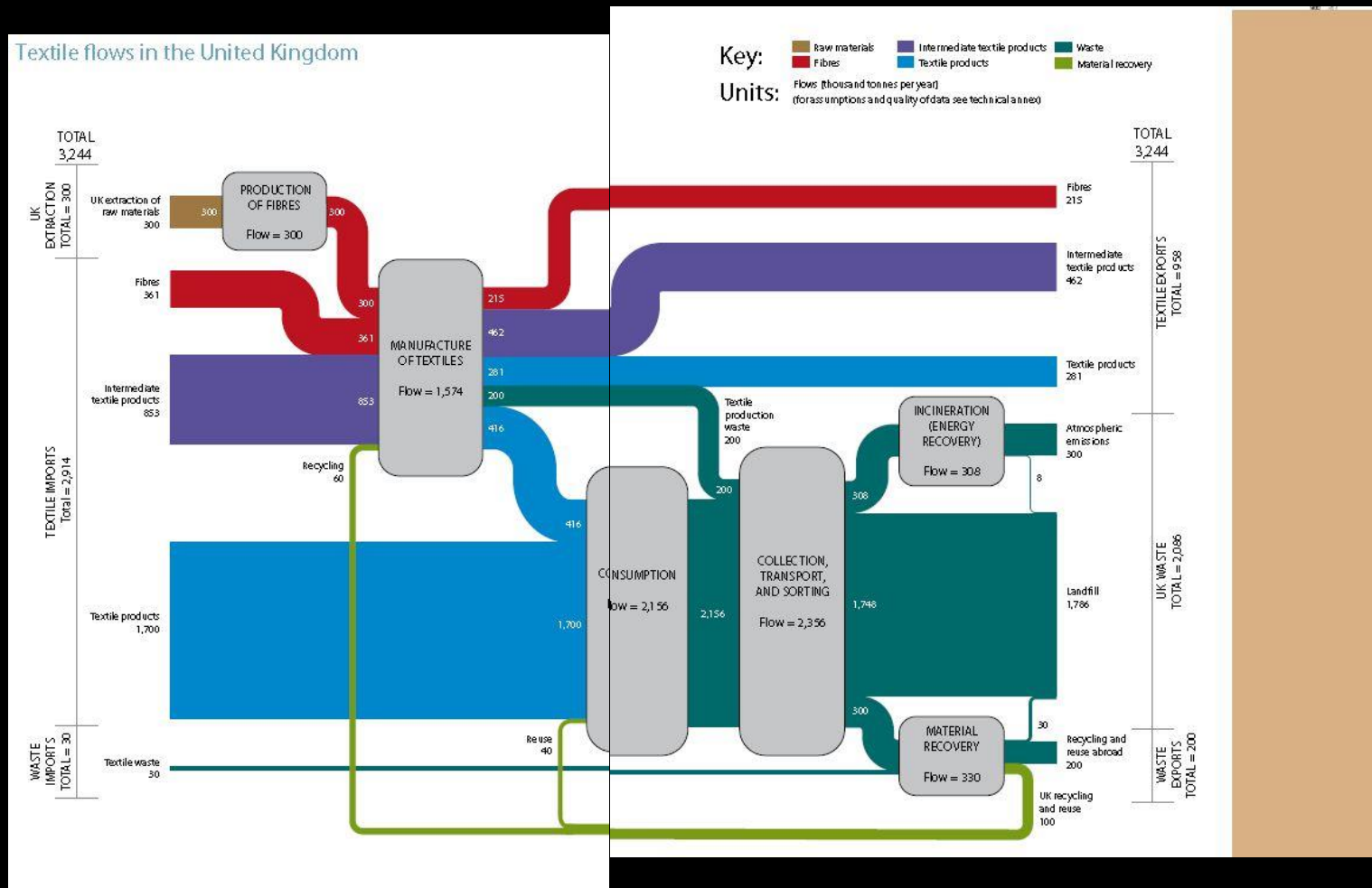
klimateffektivt drivmedel för bilar och bussar. Faktum är att vi är en av de bästa kommunerna i landet på att göra biogas av matavfall. Tillbaka till kretsloppet, alltid. Med din hjälp.

Är du osäker på vad som ska sorteras som matavfall? Du får blixtsnabb svar i vår sorteringsguide på www.upsalavatten.se. Välkommen!

* En av de mikroorganismer som i vår anläggning bryter sig på matavfall, och som tack för hjälpen producerar biogas.

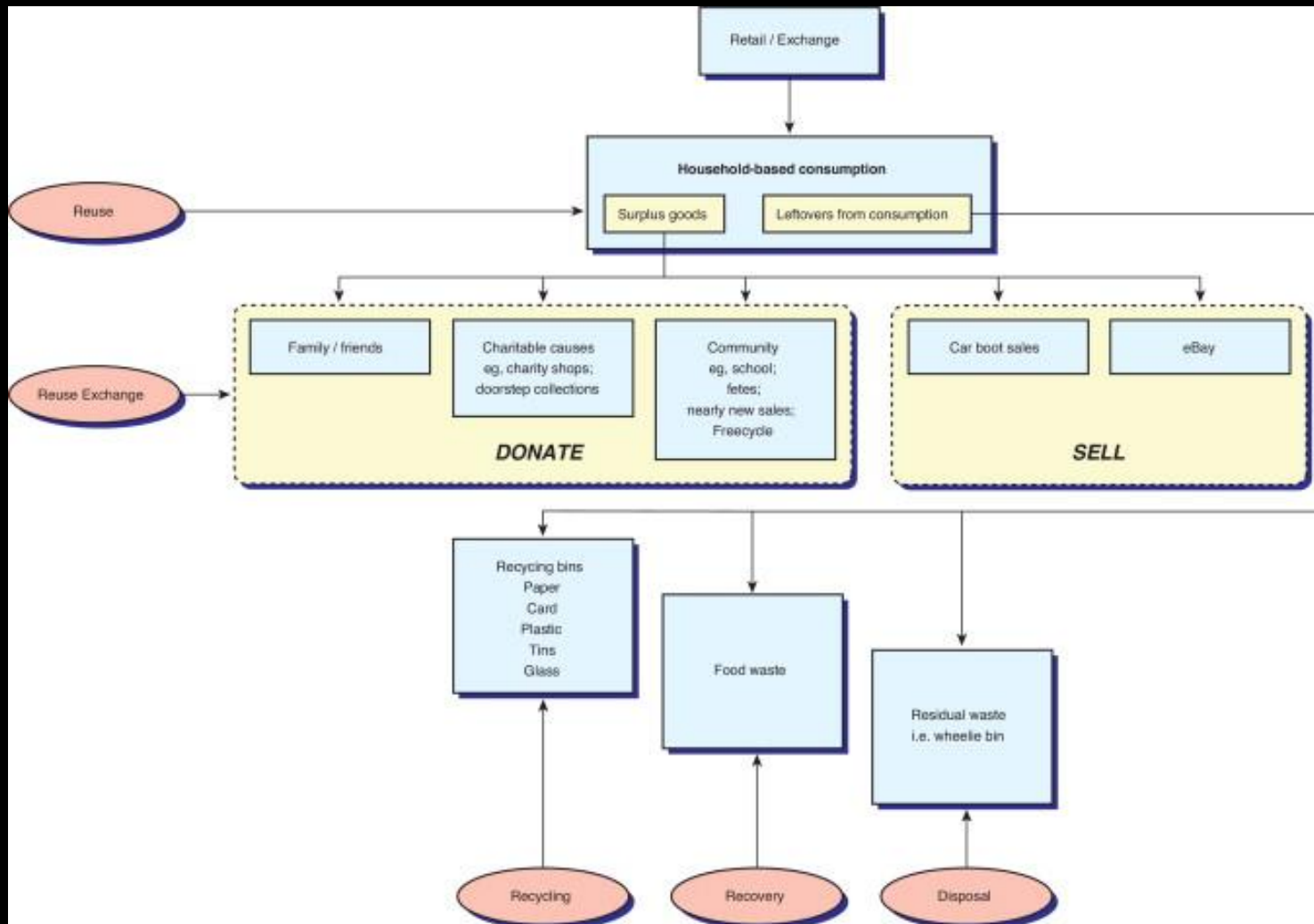
 **UPPSALA VATTEN**

Material flows: UK textiles

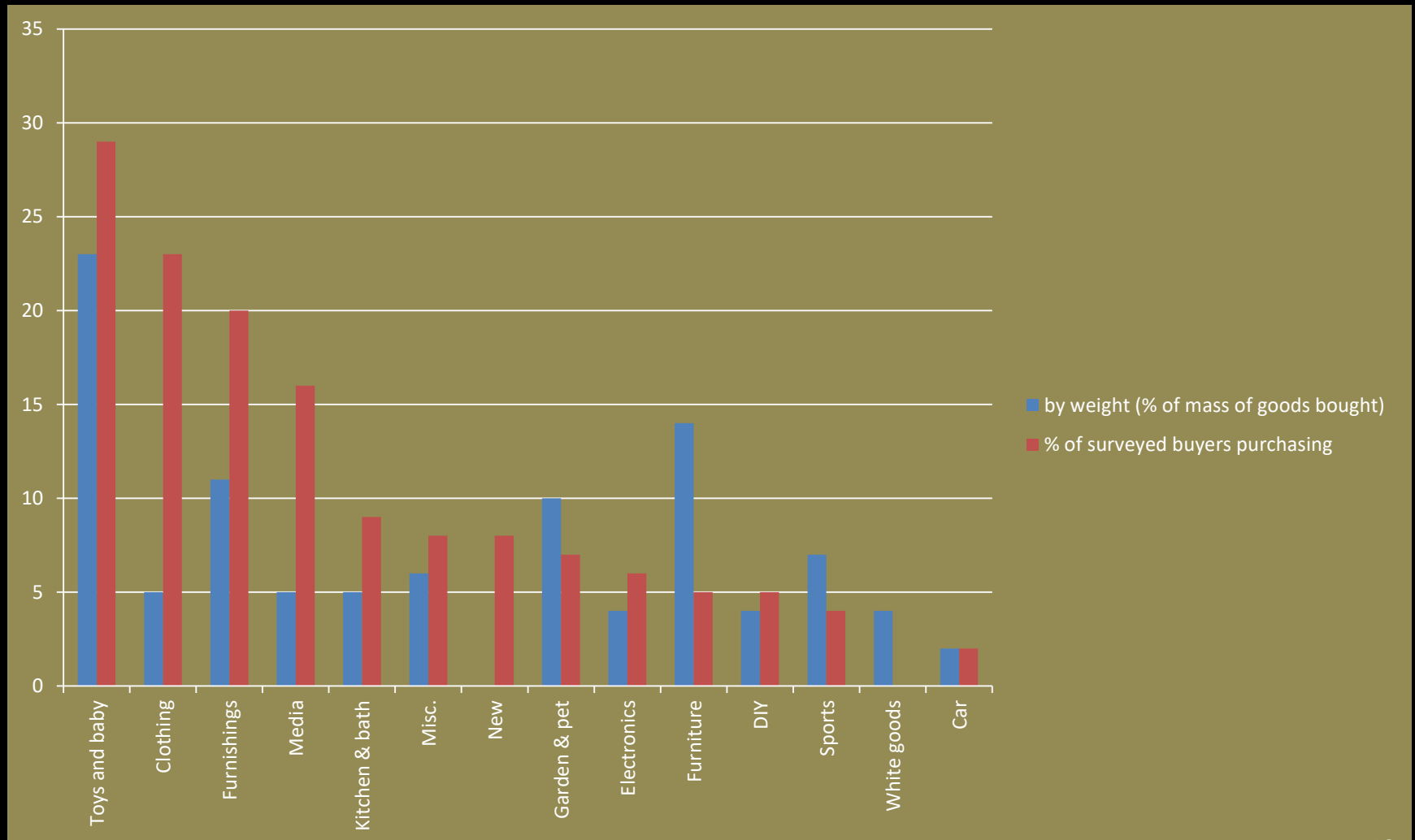


- Over the past 10 years, clothing has been the fastest growing waste stream in the UK.
- Select cttee 2018:
 - 235m garments sent to landfill last year.
 - Recycling charity Textile Reuse & International Development (Traid), of 650,000 tonnes of clothing collected for reuse and recycling in 2014, just 39% suitable for charity shops.
- People dispose of an average of 19 items, 7 going straight in the bin.
 - Women throw away more
 - Men less likely to recycle

Reuse /exchange



Purchases by category and weight



The promise of a Green economy

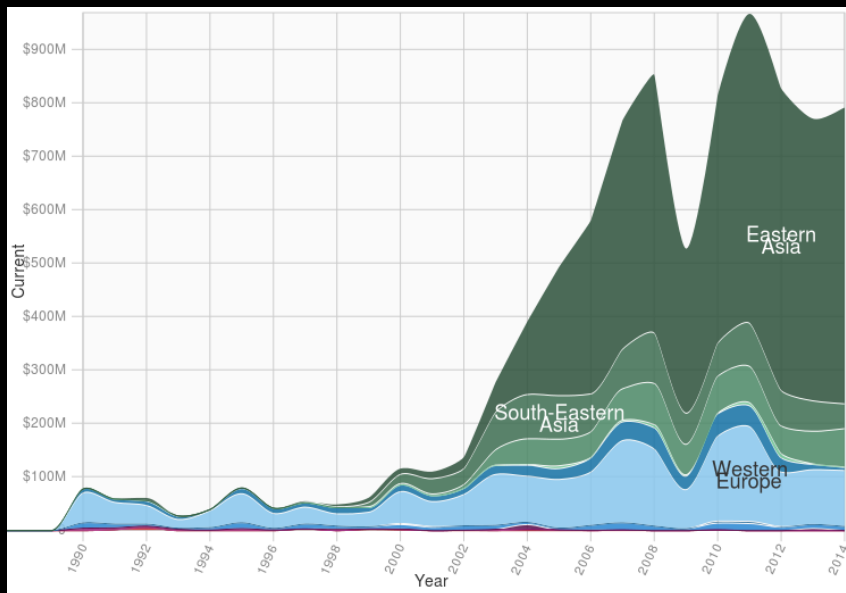
- Discursive claims
- UK alone, expanding recycling could create up to 84,000 jobs in the next decade, possibly located in areas formerly associated with heavy industries (SITA UK, 2012: 4).
- EU as a whole, jobs in recycling related activities grew from 230,000 to 500,000 between 2000 and 2008, at a rate of over 10% per annum (EEA, 2011)
- ?

Doing the (dirty) work of recycling

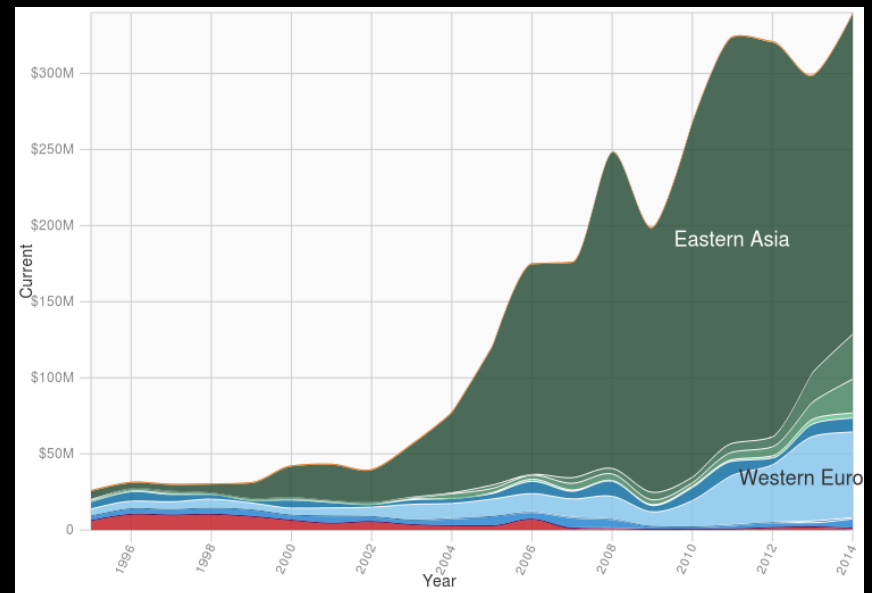
- Consumer 'doing recycling' (UK minimal) sorting
- Kind of jobs/skills
 - separation, sorting and segregation relate to categories, or grades, of materials demanded by producers using the recycled materials.
 - Sorting discarded goods into categories is the means by which value is created in resource recovery.
 - Categories are expressed in terms of the degree of material purity and contamination for any given product.
- waste historically associated with marginal and foreign workers
- Global competition of labour intensive sorting vs UK capital intensive
 - wrong kind of recycling?

UK exports of scrap

Recovered paper/paperboard

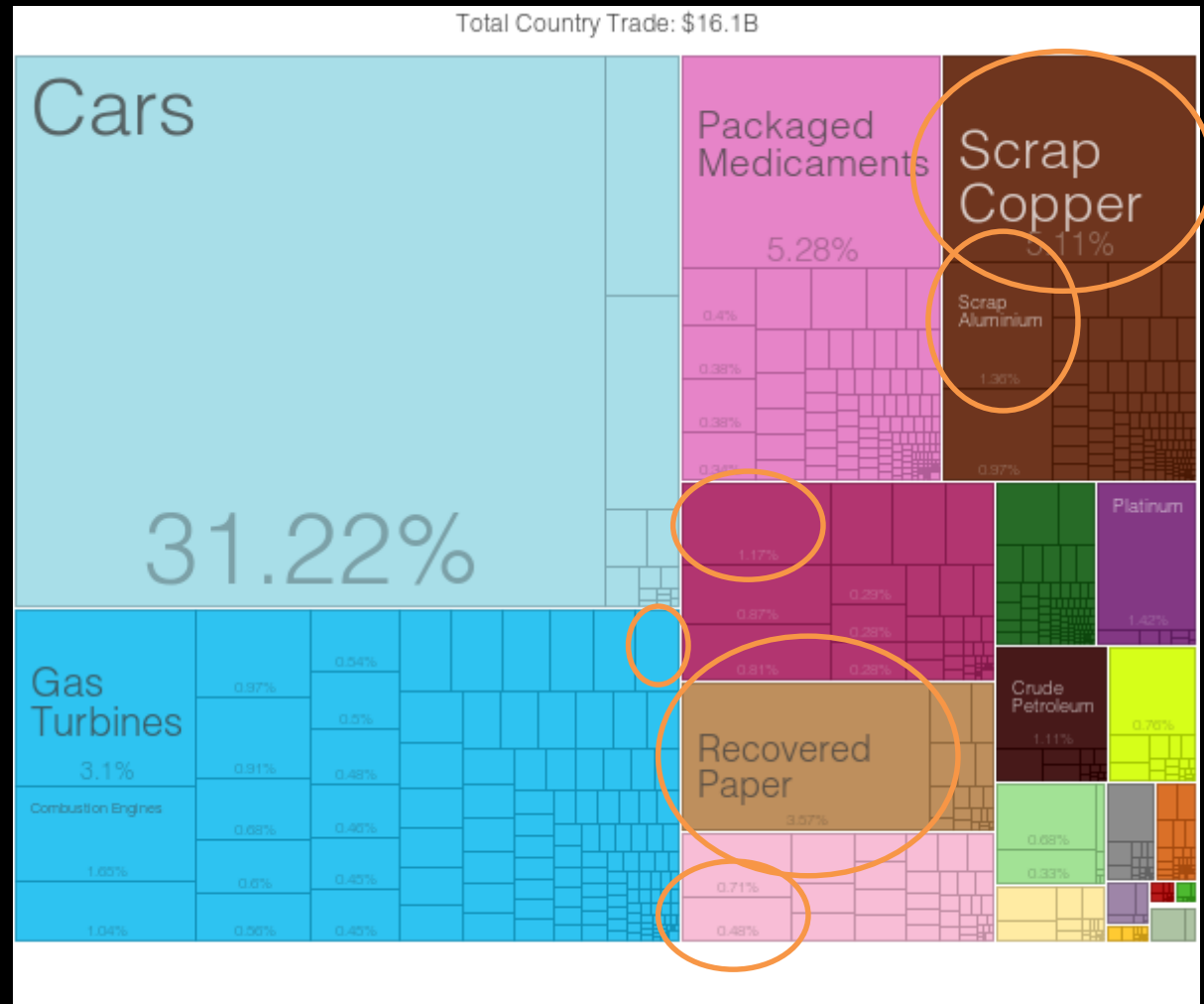


Plastic waste



UK exports to PRC

C12% “scrap”



Stock our shops

More stock means more care

Our shops raise much needed money to fund the work of our nurses. By filling the enclosed bag you will be ensuring we can continue to care for more people.

Just fill the bag with your unwanted clothing, books, linens and bric-a-brac and leave it on your doorstep on the morning of the day indicated below.

Thank you for supporting Marie Curie Cancer Care.

Collections will be made from your doorstep

on:

Mon	Tues	Wed	Thur	Fri	Sat	Sun
-----	------	-----	------	-----	-----	-----

(Please put your sack out before 8am. It will be collected by an authorised collector carrying Marie Curie Cancer Care I.D.):

WARNING: Plastic bag inside. Please keep away from babies and children.

Marie Curie Cancer Care provides high quality nursing, totally free, to give people with terminal cancer and other illnesses the choice of dying at home, supported by their families.

www.mariecurie.org.uk

Code of Charity Retailing



Association of
Charity Shops
Supporting Charity Retail
www.charityshops.org.uk
2010

Marie Curie
Cancer Care



Valuing Donation

BCR Global Textiles who help small businesses in Africa, through their textile project they are preventing valuable textiles going to landfill giving them a

new lease of life in developing countries across Africa where bras remain too expensive to produce. BCR are donating £1,000 to our research for every tonne of bras collected, that's only 9,000 bras! With over 30 million women in the UK you could really help make a difference!



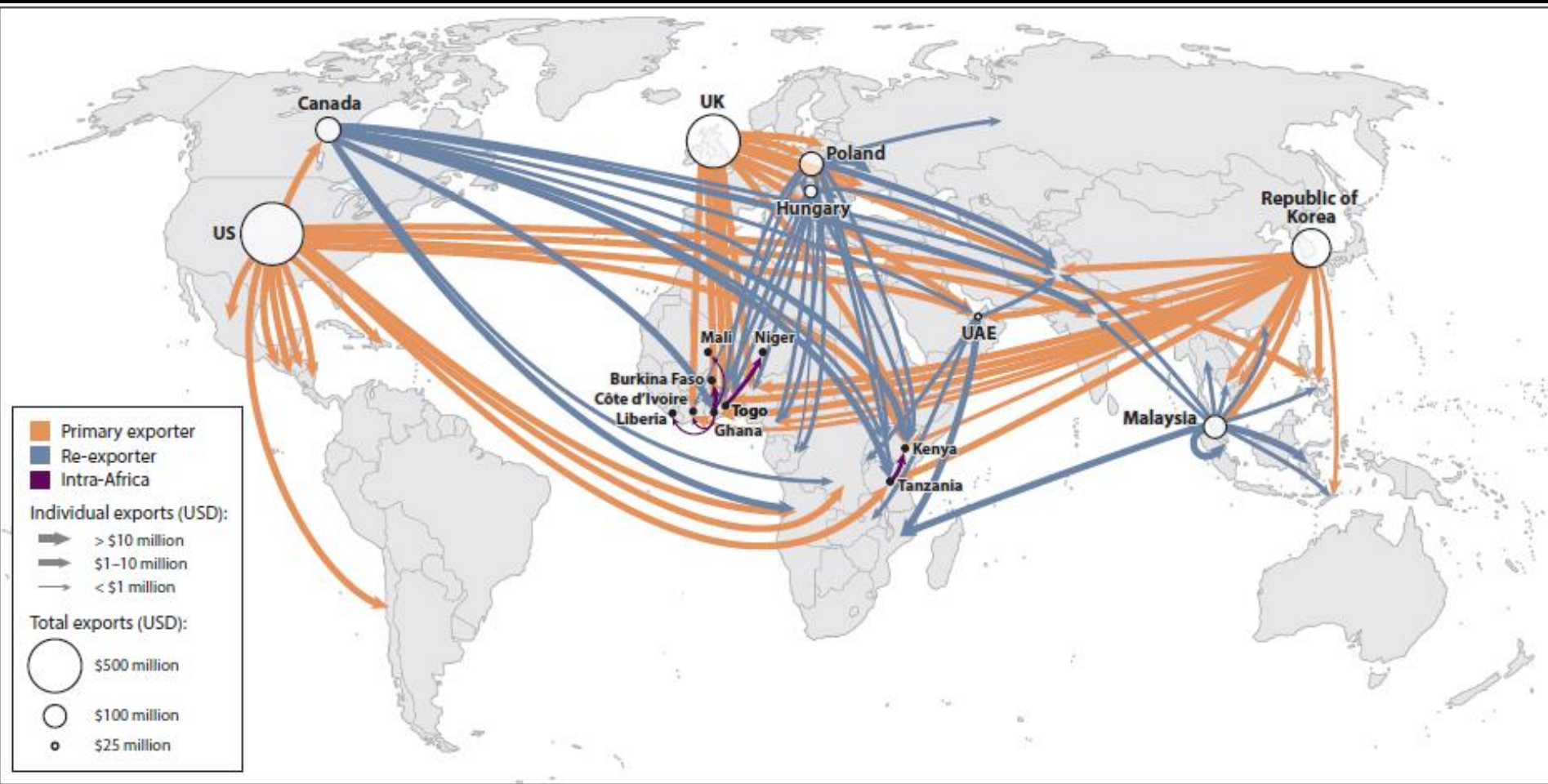
By filling this bag with your unwanted clothes, you can help research for more people like Paul. He received vital support from Paul, his Macmillan nurse, who made sure he didn't face cancer alone.

Collection day:

THURSDAY

Please fill the enclosed bag and leave it outside your door by 8am on 22nd.

Flows of Used Textiles



Baled and Shipped to E European sorting centres



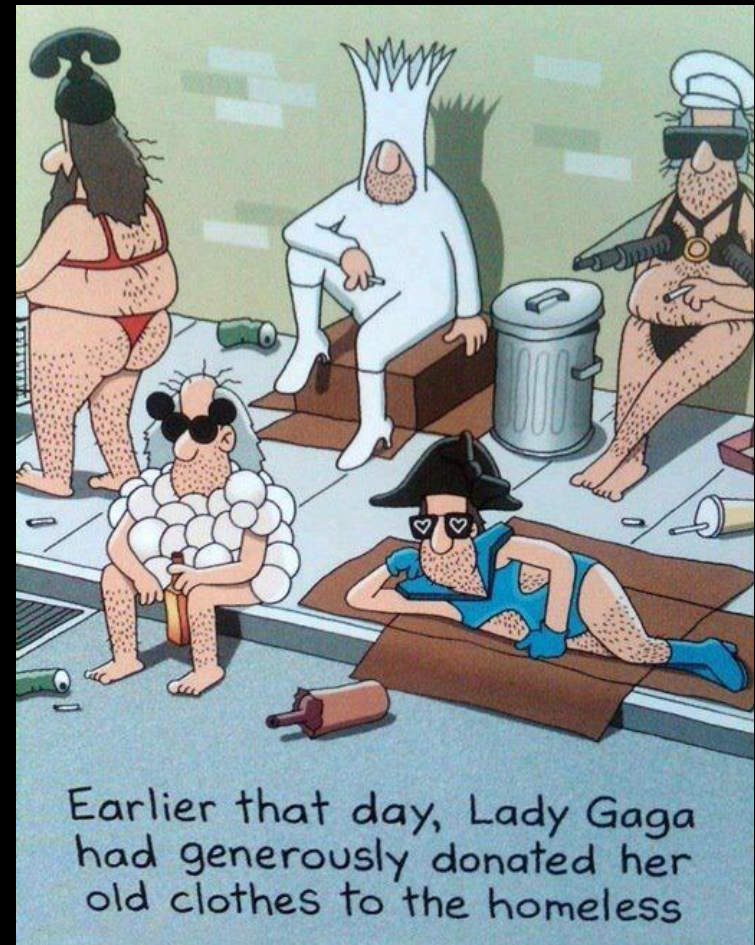
Sorted and graded



400 grades/categories



- Employ people from different countries
- Market knowledge
- Woollens to E Europe, cottons to W Africa
- Climate and cultural norms
- DEMAND



Africa Reselling



Prices in West Africa (2011)



- Quality, supply & demand
♀ / ♂ (Per 45kg)
- Polyester blouse £19
- ♀ suit jacket £44
- Child trousers £63
- ♀ tshirt £63
- ♂ tshirt £81
- ♂ suit jacket £88
- ♀ ¾ length trousers £88
- ♀ Cotton blouse £94
- ♂ shirt £100
- Logo Sport shirt £113
- Bras £188

Changing Tides

China 'upgrading' in
GVC/GPN

Internal circular economy

Higher quality inputs

UK waste too contaminated

'Green fence' 2014

2017 closure for 24
categories and via 'purity'
criteria

How the global river of plastic waste changed course in just 12 months

Exports of plastic waste, parings and scrap from G7 countries ('000 tonnes)

