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# Circular economy: Consumers seek help



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# Behavioural changes support going green, but a circular economy requires complex revolution and coordination

People largely agree on the biggest environmental challenges of our time and many say they already participate in a movement towards a circular economy by reusing products and recycling resources. But consumers also recognise that initiatives from businesses and broader structural changes are needed if individual efforts are to have a coordinated impact.

#### The behaviour of a circular economy

The earth is straining under pressure from people and their products, making environmental management one of the biggest issues we face. Our latest ING International Survey looks at what consumers think about their contribution to this global challenge through the lens of a circular economy ethos of reduce, reuse and recycle.

Many environmental issues are linked. The challenges are so large they require widespread systemic change alongside individual action. This report focuses on two issues where individual consumers can make an impact – attitudes towards acquiring goods and disposing of those no longer needed. In short, how much are we supporting a circular economy where waste is eliminated, and products re-used more than created?

We find that such an economic revolution, while not imminent, is on consumers' minds and is being driven by concerns about the world in which we live. In every country surveyed, more than half of respondents -- and large majorities in most instances -indicated the environment should be an economic priority.

But despite strong self-reported support for going green, transition isn't easy. We want a clean environment and we even acknowledge that someone needs to pay for it. But deciding who pays for what is a complex challenge, particularly as the short and long-term impacts of consumer choices are difficult to calculate. Sustainable decisions must also be made on a continual basis, many times a day, if they are to have the intended impact. To encourage consumer action and drive large-scale change, an understanding of attitudes and coordination of actions is needed. Our survey gives insights into how consumers feel about going circular:

- Believing they are protecting the environment may be an incentive for some. We found that while a financial incentive could increase recycling, many people say they would do it anyway. This suggests that to some extent, sustainable activities may be altruistically motivated.
- Not all countries think about consumption in the same ways. Of those surveyed in Luxembourg and Turkey, a respective 82% and 78% considered their country to be excessively focussed upon consumption, compared to 50% of Italians and 61% of Czechs at the other end of the scale. These findings suggest local factors such as social and cultural norms may influence consumer attitudes.
- Individual decisions about the environment are complex, but they can shed light on both what motivates people and what barriers they come up against. In choosing whether to fix or replace a fridge, for example, responses indicated that the cost of replacement should be up to 30% of purchasing new, if most people are to repair. A fair price is considered almost just as important as the durability of new items.
- While many say they already re-use products that break, a need to consistently do more is also front of mind. Most expect to change their behaviour in the next three years and acknowledge today's level of excessive consumption.

#### What is a circular economy?

In its simplest form, a circular economy is the opposite of a throwaway society. It seeks to extend the use of products through reducing resource use and waste, maintaining what we have manufactured for longer, then returning it to the production process.

These are the new "Three Rs" -- reducing, reusing and recycling. The idea is not new: biologically, we participate daily. Plant products for food or material are grown, used and then become compost to begin the process over again.

As the planet strains under over-production, over-consumption and over-population, the urgency for a broader circular economy to create sustainable growth has grown. The Ellen MacArthur Foundation puts it neatly as one that "builds and rebuilds overall system health" [1]. Global annual waste generation is on course to reach 3.5 billion tonnes in 2050 from 2.0 billion in 2016 [2], with 60 billion tonnes of natural resources extracted annually [3].

A circular economy promises to combat this by eliminating waste and reusing resources rather than exploiting more. Whether that be through remanufacturing and recycling raw materials, or by reusing, repairing and sharing finished products among society.

But, while companies are committing themselves to the ideals of the circular economy, little progress is being made. Market forces alone will not drive this movement and businesses face numerous challenges in shifting towards circular economy principles. ING Group Chief Economist Mark Cliffe explains these include a reluctance for consumers to pay a significant premium for circular products and services, cultural barriers and raw materials remaining cheaper than recycled inputs [4].

"Public policy, whether through taxes, subsidies, regulations or public information campaigns, will be needed to accelerate the progress of the circular economy."—Mark Cliffe, Group Chief Economist, ING

#### Consumer attitudes: a vital piece of the puzzle

This report adds to the discussion by sharing insights on the way consumers take environmental issues into account when spending and sheds light on perceptions of today's challenges and tomorrow's opportunities.

In the event of circular economy growth, consumers, as one part of the puzzle, will drive a push and a pull towards change. They will need to adapt their lifestyles to encompass sustainability and, just as importantly, to pressure companies to similarly address change. This may mean eschewing convenient plastic in supermarkets, repairing appliances rather than buying new or paying for costlier items that have not been mass-produced.

The ING International Survey (IIS) has previously found that turning attitudes into action is challenging. The 2018 IIS report on consumer attitudes to sustainable housing found that making environmentally informed changes can be difficult, with cost and a lack of knowledge key drivers [5].

"While consumers need structural support to enable fixing and re-using, sustainable decisions must also have a clear benefit. While many agree that durability is a significant factor when choosing certain products, price is almost just as important." – Jessica Exton, Behavioural Scientist, ING

Consumers are both pushing for change and asking for help to coordinate these efforts. But while it is relatively easy to call for radical behavioural change, it's less easy to accomplish. As consumers, we know we are a substantial part of the sustainability puzzle – but can't complete the picture alone.

 <sup>[1]</sup> https://www.ellenmacarthurfoundation.org/circular-economy/concept
 [2[ http://sdg.iisd.org/news/world-bank-report-warns-global-solid-waste-could-increase-70-percent-by-2050/

<sup>[3]</sup> https://cdn.friendsoftheearth.uk/sites/default/files/downloads/overconsumption.pdf [4] https://think.ing.com/reports/the-move-to-a-circular-economy/

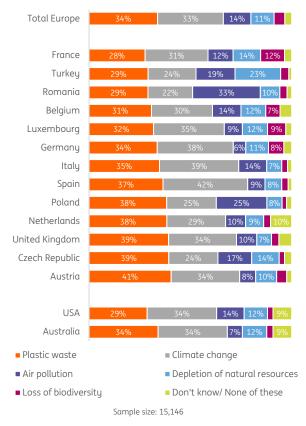
<sup>[5]</sup> https://think.ing.com/reports/paying-the-price-for-greener-homes-sustainabilityenvironment-attitudes/

# Reduce: support coordinated change

## Plastics considered among biggest problems

Plastic waste and climate change are widely considered the most pressing problems for the environment, although variations across country responses suggest local conditions influence attitudes.

## What do you see as the most pressing problem for the environment?



Asked to everyone. Responses were ordered (first to last): air pollution, plastic waste, climate change, loss of biodiversity, depletion of natural resources, don't know / none of these

#### Worry about plastic waste and the changing climate

When asked what they believed was the most pressing environmental problem facing the world, the answer was clear, if divided: 67% of Europeans said either plastic waste (34%) or climate change (33%). These finding are not surprising given the global publicity both issues have received, be it from Greta Thunberg's climate activism or evidence of plastic deep in the Pacific Ocean's Mariana Trench.

Our survey did not however provide an exhaustive list of environmental issues, focusing instead on more frequently mentioned topics. Some respondents, such as the roughly one in 10 from Australia, the United States and the Netherlands who responded "other" or "don't know", chose not to select a key issue from the provided list.

These results therefore may have looked quite different if we had allowed people to write any response in a blank box.

Additionally, these responses may reflect issues that are front-of mind or frequently mentioned and not necessarily those that experts consider most pressing or dangerous [1].

This point is reflected in the large numbers from two countries with notable air pollution [2] – Poland (25%) and Romania (33%) – who cited it as the biggest problem. Responses may have reflected what was currently being experienced or frequently discussed among social circles.

 https://www.stockholmresilience.org/research/planetary-boundaries/planetaryboundaries/about-the-research/the-nine-planetary-boundaries.html
 https://www.eea.europa.eu/publications/air-quality-in-europe-2019

## Sacrifices significant but small part of global threat

There is support for reining in economic growth to protect the environment. Most respondents asked about prioritising the environment, agreed some growth could be given up in support of the environment.

#### Cutting growth to go green

We asked to what extent respondents agreed or disagreed that protecting the environment should be given priority, even if it caused slower economic growth. Prioritising the environment was supported by 74% of Europeans, indicating that some may be willing to give up some growth, at least hypothetically.

This ranged between 51% in the Netherlands and 87% in Romania, but there was no obvious high/low GDP divide: e.g. France (77%) and the Czech Republic (76%) were roughly equal.

Put briefly, if we had to choose between economic prosperity and reducing environmentally harmful practices it wouldn't be clear cut. This is a complex topic without an obvious way to achieve one over the other. We also recognise this survey covers higher income countries and answers may differ in other less wealthy countries.

To de-prioritise growth for the environment major behavioural changes would be needed. For consumers, it may involve sacrifices such as eating less meat, buying fewer clothes, travelling less, paying extra tax to offset carbon, or becoming more frugal. But changes wouldn't only be behavioural. Sustainability is a macroeconomic and systemic issue, which comes with broader prioritisation, coordination and measurement challenges.

#### A false choice?

On the macroeconomic side, is it really a case of cutting growth to save the planet? Some believe the shift towards a circular economy will engender economic growth while also being sustainable. [1]



To what extent do you agree or disagree with the statement: protecting the environment should be given priority, even if it causes slower economic growth.

Asked to half of participants. Agree and strongly agree responses combined. Alternative responses included neither agree nor disagree, disagree, strongly disagree.

Agree: Protecting the environment should be given priority, even if it causes slower economic growth Sample size: 7,417

## Consumers look for companies to take initiative...

Some companies are already adapting their business models to limit environmental impact and meet customers' expectations. And our survey suggests not doing so may have ramifications.

#### Consumers anticipate sustainable role for companies A large majority (64%) of Europeans said companies would face a

consumer backlash if they did not take steps to go green.

Yet, while most people in Europe (66%) said they believed claims that some goods had less impact on the environment than others, only a third (33%) could specifically name a company that had changed its model to re-use or repair its products.

Consumers are already seeking help to change their own behaviour to protect the environment. Lobbying supermarkets to move away from plastic packaging and making deliberate consumption choices have both become part of a growing consumer trend. In this vein, regulations are also changing. The European Union recently responded to consumer complaints about closed industry practices by issuing "right to repair" rules to force manufacturers to supply spare parts for up to 10 years [1].

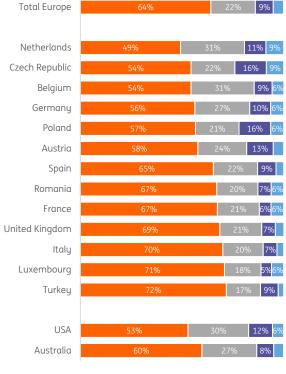
#### Openness is an issue

A study by the Alliance for Corporate Transparency found that while 90% of top European companies reported on climate change issues, only 47% were precise about what their policy was intending to do [2]. Similarly, the Society for Conservation Biology says it found that almost half of Fortune 100 companies mentioned biodiversity in their reports, and 31 made clear biodiversity commitments. But of these, only five were specific, measurable and time-bound targets [3].

[1] https://ec.europa.eu/commission/presscorner/detail/en/ip\_19\_5895

[2] https://www.allianceforcorporatetransparency.org/news/companies-failing.html [3] https://conbio.onlinelibrary.wiley.com/doi/full/10.1111/cobi.13190

#### To what extent do you agree or disagree: companies will experience consumer backlash if they do not limit their environmental impact.



Agree 

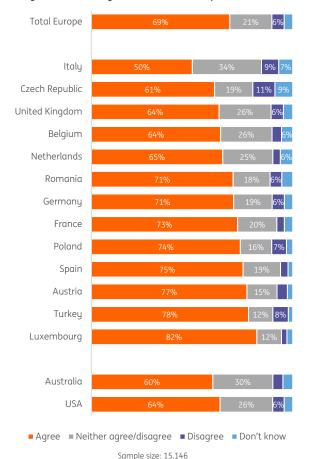
 Neither agree/disagree
 Disagree
 I don't know

 Sample size: 15,146

Asked to everyone.

## ...And recognise local over-consumption

Many agree that collective impact on the environmental is excessive.



## To what extent do you agree or disagree: in general people in my country are excessively focused on consumption.

Asked to everyone.

#### People say their country is too consumerist

When asked about over-consumption, blame was widely cast. Most claimed their home country is excessively focused on consumption.

In Europe, 69% of respondents said their country was too consumerist and only 6% said it wasn't (the remainder were either neutral or said they didn't know). Of the 13 European countries included, only five -- Italy (50%), the Czech Republic (61%), the United Kingdom (64%), Belgium (64%) and the Netherlands (65%) -- fell below the average.

Three-quarters or more Spaniards, Austrians, Turks and Luxembourgers deemed their countries excessive consumers.

#### How much is too much?

Ascertaining how much is 'too much' is difficult, but some indicators can be gleaned from the global share of resources used by various countries. One example is "Overshoot Day". The day by which the Earth's annual capacity to renew is used up has moved up the calendar by 2 months in the past 20 years, this year occurring on July 29, the earliest ever. If everyone consumed like the United States it would have been March 15; like Germany, May 3; like UK, May 17 [2].

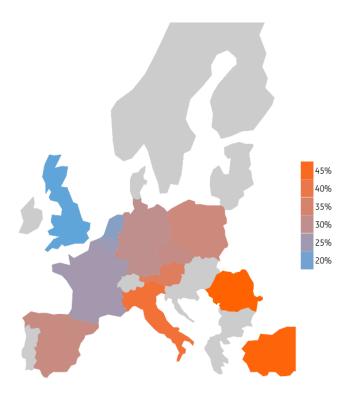
[1] http://wwf.panda.org/?350491/Earth-Overshoot-Day-2019[S](1[2] https://www.overshootday.org/newsroom/country-overshoot-days/

# Re-use: charge a little, not a lot, to repair

## Circular product disposal differs region-to-region

Circular economy activities are occurring globally. Motivations behind re-using and recycling items may vary widely across countries and some self-report doing so more than others.

## Map showing index of country propensity to manage and dispose of products in a circular fashion.



European respondents only. Map shows proportion of people in the 'high' category, scoring 6 or more on the circular consumers index. For more detail on index methodology, please see appendix on page 23.

#### Europe divided over 'Three R' use

To gauge current levels of action, we combined a selected series of questions to measure people's self-reported circular activities.

Across Europe, Romania and Turkey scored highest in managing and disposing products most closely aligned to a circular fashion, with 47% of their respective populations falling into our 'high' index category. The Netherlands (22%) and United Kingdom (19%) posted the lowest percentages of 'high' circular consumers. Interestingly, attitudes were closely consistent across age groups up to 70 years, but women (34%) were more likely to score highly compared to men (27%).

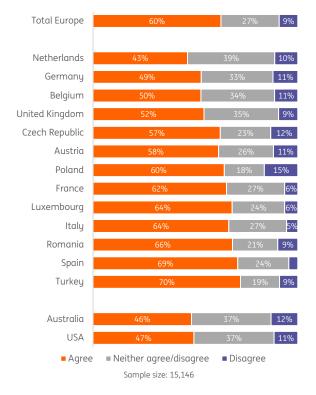
As with any index, this is a high-level indicator only, and the results will be heavily influenced by the selection of contributing questions. In total, 12 were asked with equal weighting to create the index scores per country. For example, responses indicating people had re-used clothing they no longer wanted in new ways added to the score, but those indicating clothes had been thrown away detracted from the score. Selected questions created a score from -3 to +10, with 6 or more considered "high scorers".

This index prompts further questions regarding why we see variations country-by-country. We anticipate the cost-saving nature of reusing items, social and cultural norms around recycling activity, the availability of repair and waste disposal services, perceptions of the time and effort required to make sustainable choices and trust in recycling procedures are just some of those contributing to locational differences.

## Many foresee a future of fixing over consuming

Remember when people used to darn socks, take their TV to the repair shop, or fix their lawnmower? Our survey suggests there is a willingness to see that kind of behaviour return.

#### To what extent do you agree or disagree: in the next three years I expect to be re-using products more by having them repaired if they break, instead of just throwing them away



Asked to everyone.

#### People want to fix things

Some 60% of Europeans said they expect to be increasingly fixing items rather than disposing of them over the next three years, with only 9% saying they expect otherwise, with the rest unsure.

Making repairs has become increasingly difficult in recent years as many local specialist shops have disappeared, while manufactures have more interest in selling new products rather than fixing old ones, resulting in "right to repair" legislation being introduced in some countries. This has led to many products simply being discarded when they break or are overtaken by new models.

This is particularly the case with e-waste -- discarded mobile phones, computers, televisions and the like. Up to 50 million metric tons of e-waste is produced each year, with just 20% being formally recycled, according to the United Nations Environment Programme [1].

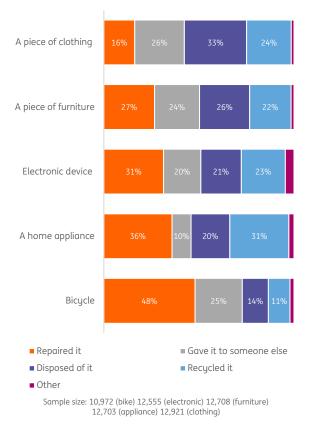
As one of our case studies explained, making changes isn't easy: "All of us are responsible for what is happening in this world... the question is how, and no one really knows – it's so difficult" – woman, 44 years, UK

There may also be a trade-off between constructing goods efficiently and doing so in such a way that they can be repaired with durability. The decisions for manufacturers may be complex.

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## Others readily repair and re-use

Some things rarely get thrown away if they break or get torn. Many people say they repair these items or give them to others. While not everyone is in the practice of doing so, some are driving the circular economy



#### The last time any of these items broke, what did you do?

European responses only. Only responses from those who had owned this item before shown. Those who responded 'it never broke' were removed.

#### If it's (not) broke, fix it

An average 23% of Europeans surveyed disposed of clothes, furniture, electronic devices, home appliances and bicycles when something last went wrong.

By contrast, 32% on average selected to repair while 22% and 21% on average either recycled or gave items to someone else respectively. There was a significant disparity between the items, however. Only 16% of people mended clothing versus 48% who repaired bicycles. Similarly, 33% threw clothing away compared with 14% who dumped their bicycles.

The most recycled items were home appliances (31%); the least bicycles (11%). Damaged clothing (26%), bicycles (25%), and furniture (24%) were the most given away items, possibly because of the ease of fixing.

On a country basis across Europe, people in the UK (18%) and France (15%) were most likely to have thrown away a bicycle. Electronic devices were mostly thrown away in Spain (22%), Italy (21%) and Belgium (21%). The Czechs (40%), Poles, (38%) and British (35%) were most likely to throw away clothing.

## A good price is as important as durability

When it comes to buying homewares, it is no surprise that people want something that will last, and for a good price. Environmental factors are not necessarily top of mind.

#### People want long-lasting, reasonably priced goods

Asked to pick the three most important things they look for when buying the likes of couches or washing machines, 88% of Europeans said durability and 82% said a fair price. Next -- and some way off at 44% -- was ease of purchase.

The results suggest people continue to make purse string-led choices and that decisions which support the circular economy must also make financial sense. The ability to repair an item (36%) and the polluting impact of its manufacture (27%) were relatively low-ranking.

There was little difference between male and female responses, except that women were more concerned with the environmental impact (30% vs 23%) of their purchase.

Consumers must often balance price against quality. A cheaper item may last a shorter time. In the past, producers may have encouraged this approach by adopting the controversial practice of "planned obsolescence" – the idea that an item is not made to last to encourage buying another in the future [1]. Nowadays, fast fashion plays a similar role in clothing and electronic gadgets [2].

The latter is the antithesis of the circular economy and the "Three Rs". But while planned obsolescence can support R&D and longterm economic growth, it can also lead to poor quality and shortlived products further fuelling a throw-away culture.

#### When you buy homewares that you expect to keep for at least five years, such as a couch or a washing machine, which of these are the most important three features?

Total Europe	88%	82%	44% 36% 27% 24%		
Netherlands	75%	69% 4	5% 55% <mark>28%</mark> 29%		
Luxembourg	82%	74%	45% 33% 41% 25%		
Belgium	84%	70%	46% 47% <mark>29%</mark> 24%		
France	84%	83%	53% 35% 30%		
Czech Republic	85%	88%	54% 35%		
United Kingdom	87%	87%	45% 36%		
Italy	88%	77%	39% 44% 30%		
Romania	88%	78%	35% 47% <mark>24%</mark> 28%		
Austria	89%	83%	37% 38% 35%		
Germany	89%	82%	43% 33% 33%		
Spain	90%	89%	52% 26% 31%		
Turkey	92%	76%	47% 29% 38%		
Poland	93%	87%	26% 40% 31%		
Australia	88%	90%	41% 38% 24%		
USA	88%	90%	47% 36%		
■ The item is durable ■ I get a good price		I good price			
Buying the item	<ul> <li>Buying the item is easy</li> <li>I can repair the item if need</li> </ul>		epair the item if needed		
Production didr	i't pollute	I buy the latest model			
Sample size: 15.1/6					

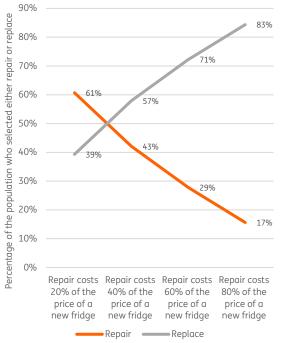
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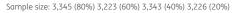
Asked to everyone. Responses were ordered (first to last): buying the item is easy, I get a good price, the item is durable, I know I can repair the item if needed, I buy the latest model, production didn't pollute

## And relative cost is key to decision-making

Choosing to repair an item over purchasing new must make financial as well as environmental sense.

Your fridge has become defective, you tried to fix it on your own but failed. Assume that repairing the one you have requires the same time and effort as purchasing new. Repairing or replacing only differ in price. Given these prices, what would you do?





European respondents only. Country-specific fridge costs were used. Respondents saw one of four different repair prices: 20%, 40%, 60% or 80% of the price of a new fridge and selected to ether repair or replace. Trends between each data point are assumed to be linear. For more detail on the question methodology, see appendix on page 23.

#### How much will people pay to repair?

The English expression "throwing good money after bad" refers to the point at which repairing something is no longer worth it. So, what do people think that point is?

We divided responders into four groups and presented them with the choice of replacing or fixing a broken fridge. Each group was given a different repair price, either 20%, 40%, 60% or 80% the cost of the new fridge. Assuming linear trends, more people said they would repair rather than replace when the repair cost was up to 30% of the cost of a replacement.

Roughly speaking, this suggests that if a new fridge cost  $\leq 1,000$ , people would on average opt for a new one when repairing their broken one cost  $\leq 300$  or more.

However, there were differences between countries. The percentage repair-cost over new-buy, at which at least 50% of the population would opt to repair, ranged from just shy of 50% in Austria to less than 10% in Romania.

Many factors would have contributed to responses. These may include social and cultural norms, perceptions of how easy it would be to repair the fridge and how quickly it could be fixed, consumer safety and expectations of longer-term affordability given rising labour costs and falling manufacturing costs.

#### Buying second-hand

A second question asked in this vein was whether people would buy an almost identical used refrigerator instead of a new one. The response did not bode well for the circular economy: even at half the price of a new fridge, only 27% of Europeans would choose the second-hand item.

# Recycle: reduce inconvenience

## Plastics are part and parcel of consumer lives

Many acknowledge their daily plastic churn, it is a practical part of life.

#### Living in a world of plastic

More than 350 million tons of plastic is produced each year [1], of which only 9% is ever likely to be recycled, according to Britain's Royal Statistical Society [2].

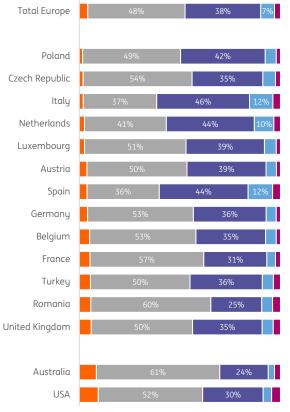
The size of the problem was underlined by our survey when 96% of European respondents said they threw away at least one piece of plastic waste a day, with 38% saying they threw away between three and five.

Meantime, 71% of respondents agreed that they expected the amount of plastic used to package food to decrease over the next two years. Despite the circular efforts regarding plastic use shown on the following pages, plastic is especially challenging according to a forthcoming report by ING economist Thijs Geijer.

"A circular model for plastics is extremely difficult. Look at food packaging for example. This is one of the biggest sources of plastic waste. However due to food safety standards it's often only possible to 'downcycle' used food packaging into less valuable products like vacuum cleaner parts. Nor can plastics just be swapped for alternatives, such as paper or glass, which also come with specific sustainability challenges" – Thijs Geijer, Economist, ING

But despite the challenges, consumer pressure is having some impact on how companies deal with the use of plastic as more and more companies are formulating goals to reduce plastic use and increase the share of recycled material.

#### On average, how much plastic waste do you throw away per day? If unsure a best guess is ok.



 <sup>0</sup> items = 1-2 items = 3-5 items = 6-9 items = More than 10 items
 Sample size: 15,146

Asked to everyone. Values are self-reported and may not represent actual behaviour.

https://www.statista.com/statistics/282732/global-production-of-plastics-since-1950/
 https://www.statslife.org.uk/news/4026-statistics-of-the-year-2018-winnersannounced

## Majority already separate waste

Most people in our survey said they separate their waste at home, yet they were also confused about the best way to do it.

#### People try to recycle, but get confused

Some 76% of Europeans said they always separated recyclable waste; another 18% said they sometimes did. This suggests more than nine out of 10 of our respondents separate some waste.

While a positive sign for the circular economy, reducing waste by both using less and recycling more is needed, with preventing waste considered a higher priority.

The survey also suggests that a common problem among recyclers is that they are not sure how to. Asked whether they ever doubted where to correctly separate waste, 59% said they did sometimes and 10% said always. This is not necessarily surprising as packaging often makes use of a combination of materials, which need to be disposed of differently.

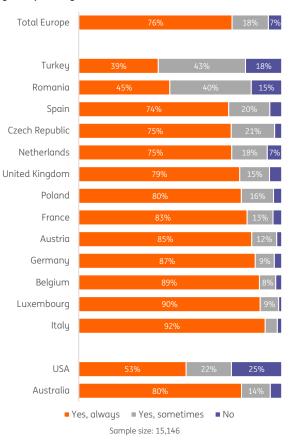
The country with the largest percentage of people who said they did not divide up their waste at all was the United States. A quarter of Americans do not separate their waste compared with 53% who always do and 22% who sometimes do.

#### Where will it go?

Once separated, it is not always clear what gets recycled. Some countries don't have all facilities and ship their recycling abroad, making recycling an international business. But China, which was taking around half of the world's recyclable waste, said in January 2018 it would no longer do so. The University of Georgia estimates that over the next decade, as much as 111 million tons of plastic alone will need a new place to go [1].

[1] https://e360.yale.edu/features/piling-up-how-chinas-ban-on-importing-waste-hasstalled-global-recycling

#### Do you separate your waste at home?

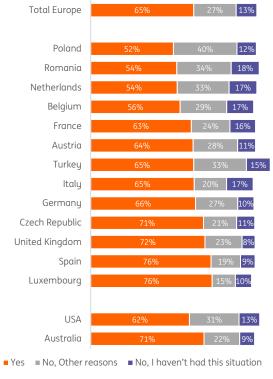


Asked to everyone.

## Europe no stranger to recycling range of products

Just 8% of Europeans said they don't have the option to recycle plastic bottles or tin cans where they live, while 7% said they never thought of doing so.

## In the last year, have you ever recycled an empty plastic bottle, or tin can, instead of throwing it into the trash?



Sample size: 15,146

Asked to everyone. Multiple answers possible. Other reasons included I don't have the option where I live, I haven't thought about it, this takes too much time/effort, I don't think this is good for the environment anyway, I don't know or remember.

#### Recycling: Now we know what you did last year

Having ascertained that most people separate their waste, we asked a series of questions about what they had done with specific items over the past year. In general, most people indicated they had tried to become greener regarding plastic bottles, tins, clothes and batteries. Electronic devices, however, were slightly less likely to have been disposed of specially.

- 65% of respondents said they had re-used old clothes by selling them, donating them or using them as household rags;

- 64% said they had taken their dead batteries to a recycling centre or put them in a recycling bin;

- 65% said they had recycled a plastic bottle or tin can rather than throwing it away;

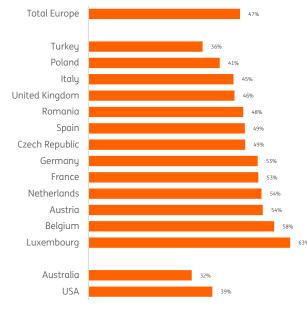
- 44% said they had taken a computer or mobile phone to a special recycling facility.

Of those who had not recycled any of the items, the main reason was that the situation had not arisen, particularly regarding electronics (34%). Interestingly, however, very few people said it was too much bother: the percentages for recycling being an inconvenience sat at just 4% (clothes), 4% (batteries), 4% (bottles and tins) and 4% (electronic devices).

## Inconvenience among the biggest hurdles

Almost half say financial incentives, which could crowd out altruistic motivation, wouldn't change their recycling behaviour. Reducing inconvenience may therefore be more encouraging.

#### What is the minimum financial incentive that would increase how likely you would be to recycle plastic bottles by placing them outside your front door for collection?



 Money wouldn't make a difference when placing them outside your front door for collection

#### Sample size: 15,146

Asked to everyone. Showing only responses from those who said a financial incentive would not make a difference. Other possible responses included 5c per bottle, 10c per bottle, 20c per bottle, more than 20c per bottle.

#### People want recycling to be simple

It is clear people want recycling to be easy -- if possible at their front door. It is equally clear that while adding a financial incentive to recycling a plastic bottle (e.g., charging a refundable deposit) would encourage the practice, many people would do it regardless.

The survey asked people how likely they would recycle a plastic bottle if a) they could do it at their front door, b) at the end of their road, and c) if they had to drive 10 minutes to a tip.

An average 90% and 89%, respectively, said they would be likely to recycle at the door or down the road. This dropped off considerably to 54% if recycling a plastic bottle entailed a 10-minute drive.

We also investigated whether offering various financial incentives between five and 20 cents a bottle - would boost the likelihood recycling. Such a scheme operates in South Australia, where people have received small sums for depositing specific types of waste since 1977 [1].

Asked whether similar payments would encourage increased recycling, the answer was unsurprisingly yes. But while 45% of Europeans said they would take their recycling items to the front door for up to 20c an item, 47% also said they did not require any incentive at all.

Some, it would seem, are keen to do something to preserve the environment, without the need for financial return.

 $\label{eq:lister} \ensuremath{\left[1\right]} https://www.abc.net.au/news/2019-07-30/should-south-australias-deposit-container-scheme-be-expanded/11317302$ 

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## About the ING International Survey

The ING International Survey promotes a better understanding of how people around the globe spend, save, invest and feel about money. It is conducted several times a year, with reports hosted at https://think.ing.com/consumer/inginternational-survey/.

This online survey was carried out by Ipsos between the 16<sup>th</sup> and 30<sup>th</sup> of August 2019.

Sampling reflects gender ratios and age distribution, selecting from pools of possible respondents furnished by panel providers in each country. European consumer figures are an average, weighted to take country population into account.



15 Countries compared in this

report

1,000

Average number of respondents surveyed in each

15,146

Total number of people surveyed for this report

## Appendix – methodology

### Map showing index of country propensity to manage and dispose of products in a circular fashion

The circular index was created using the full survey sample size of 15,146. People scored 0 on specific sub-items if they didn't answer or it wasn't relevant to them. Scores were allocated by dividing all participants into thirds, assigning low, middle and high categorisation based on a score between -3 and 10.

- Low = scores of -3 to 3
- Medium = scores of 4 and 5
- High = scores of 6 to 10

Pro-environmental responses to these questions increased scores, responses that didn't indicate support for the circular economy detracted from the overall score. Questions were variations of:

- When you buy homewares that you expect to keep for at least five years, such as a couch or a washing machine, which of these are the most important three features?
- In the last year, have you ever: recycled an empty plastic bottle, or tin can, instead of throwing it into the trash / taken a broken or old electronic device, such as a computer or phone, to a dedicated e-waste recycling facility / disposed of batteries in a special way, e.g. taking them to a recycling facility or dedicated bin / used clothing you don't want any more either in other ways, such as by using them as cleaning rags or painting clothes, sold them online or given them to a second-hand store?
- Agree or disagree In the next three years I expect to be reusing products more by having them repaired if they break, instead of just throwing them away.
- The last time any of these items broke, what did you do? A bicycle / an electronic device e.g. smartphone / a piece of furniture or home décor / a home appliance e.g. a washing machine / a piece of clothing

Your fridge has become defective, you tried to fix it on your own but failed. Assume that repairing the one you have requires the same time and effort as purchasing new. Repairing or replacing only differ in price. Given these prices, what would you do?

The full question read: "Imagine that 4 years ago, you bought a fridge for [local median fridge value]. It worked well but has recently become defective. You tried to fix it on your own but failed. You must now decide what to do. Assume that repairing the one you have now or buying a new one both require the same time and effort. They only differ in price. Given these prices, what would you decide?"

Responders were split into 4 groups and each saw one of the following different responses:

- 1. Repair the fridge for [20% of the cost of a new fridge] or replace the fridge with a new one for [120% of local median fridge value]
- 2. Repair the fridge for [40% of the cost of a new fridge] or replace the fridge with a new one for [120% of local median fridge value]
- 3. Repair the fridge for [60% of the cost of a new fridge] or replace the fridge with a new one for [120% of local median fridge value]
- 4. Repair the fridge for [80% of the cost of a new fridge] or replace the fridge with a new one for [120% of local median fridge value]

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