Learning from consumers:

How shifting demands are shaping companies' circular economy transition

A circular economy survey

ING

Foreword

In 2017 I had the opportunity to participate in the World Circular Economy Forum in Helsinki. At the time, I said that as a financial institution, we have a moral obligation to help society progress in a sustainable way – a point I still stand by today. We are uniquely placed in society because we are in contact with a variety of stakeholders within value chains. Over the last three years, I'm pleased to say that the conversations around the circular economy have continued to grow.

At ING, we haven't stood still. We've been using our financing and advisory discussions to actively help clients to transition to new sustainable models. Last year, we set up a 'Circular Supply Chain Accelerator' together with Accenture Strategy and Circle Economy to help large multinationals and their small and medium-sized suppliers shift to circular business models. We've recently started leading a working group which is part of the Open Learning Environment – a partnership between public and private institutions valuable for the diversity of the participants involved in it: engineering, concrete and construction companies, economic advisors, and the municipality of Rotterdam.

Next to these initiatives, we've also undertaken research. In 2019 we spoke to business leaders in the US and asked them if they saw value in the circular economy. The results were overwhelmingly positive. 62% of the c-suite business leaders we surveyed said they planned to move toward circular business models, with another 16% saying they already had. The figures may seem surprising, but they aren't when you consider the opportunity and potential benefits a circular economy brings. Better resource management for companies, less reliance on virgin raw materials, new revenue and data streams that provide better insights into their customers' wants and needs.

In 2020 we've created a companion piece of research that looks at the circular economy from the consumer's perspective. In 2019 we saw the topic of sustainability at a boiling point: global protests, student demonstrations, the youngest ever Time person of the year, and heartbreaking images of environmental devastation and loss, to name a few of the stories. How has this had an impact on consumer behavior? Is the topic of sustainability factoring into their buying habits? Are they interested in sharing platforms? Do they want a circular economy and do they even know what one is?

Our research had some interesting findings. It's certainly not a case of one-size-fitsall. Consumers are ever more concerned about their environmental impact, including that of the companies they are buying from, and are willing to walk away from brands they consider not to be sustainable. While the sustainability message doesn't resonate with everyone, the potential of the circular economy to redefine customer "convenience" could win over even the most ardent climate skeptics.

With the necessary impetus for positive change, we have the capability to secure the future of our planet, our home, for generations to come.

Isabel

Isabel Fernandez
Member of the Management Board and
Global Head Wholesale Banking, ING

Introduction: Evolving expectations and the circular economy

There have been numerous attempts in recent times to estimate the business opportunity presented by the circular economy. While the figures aren't in exact agreement, the general consensus is that the circular economy represents a multi-trillion-dollar business opportunity.[1, 2]

Where will that value come from? There are many ways in which companies can apply the circular economy principles of 'reduce, reuse, and recycle' to increase profitability. Whether through more energy-efficient production, finding alternative uses for waste streams, reducing reliance on primary raw materials, or selling their products multiple times as sharing models and markets for refurbished pre-owned items continue to expand.

The potential business gains are vast – too big for any company to ignore. And this message is clearly hitting home. In our 2019 survey of US executives within the automotive, electronics, food and agriculture, and healthcare industries, we found that 78 percent of these companies have now adopted or plan to adopt circular economy frameworks, as they recognize the importance of this strategy to their future competitiveness.[3]

All of this will be in vain, however, if companies cannot bring consumers with them as they transition to circular economy models. Without consumer buy-in, companies will be unable to close material loops or to generate additional value through product sharing and product-as-a-service (PaaS) models.

The good news for companies investing in the circular transformation of their business models is that consumers want to change, too. Our latest circular economy research, a global study of 15,000 consumers, reveals that 83 percent believe their own behavior and consumer choices can have a positive impact on addressing global environmental challenges.

The upshot, however, is that consumers' sense of personal responsibility is married to changing expectations of the brands they buy from. There is a real threat to companies that don't act, as consumers are prepared to vote with their feet: 59 percent are becoming more influenced by a product's environmental impact when they make purchasing decisions. And they are becoming frustrated by brands that fail to inform them adequately; only one-fifth of consumers are satisfied that they're getting the full picture from companies about the environmental impact of their products.

Companies also have other significant hurdles to overcome if they are to design circular models that really work for their customer base. Although they're demanding change, consumers are currently interacting with brands in the context of the existing 'convenience economy', whose linear infrastructure is optimised for the 'take, make, and dispose' cycle. To transition consumers towards circular practices, from recycle and repair to product sharing, companies – alongside governments – need to help put the infrastructure in place to give consumers more sustainable options.

Only by making this transition as frictionless as possible for consumers will companies encourage mass engagement with circular practices and succeed in capturing all of the gains on offer from circular models.

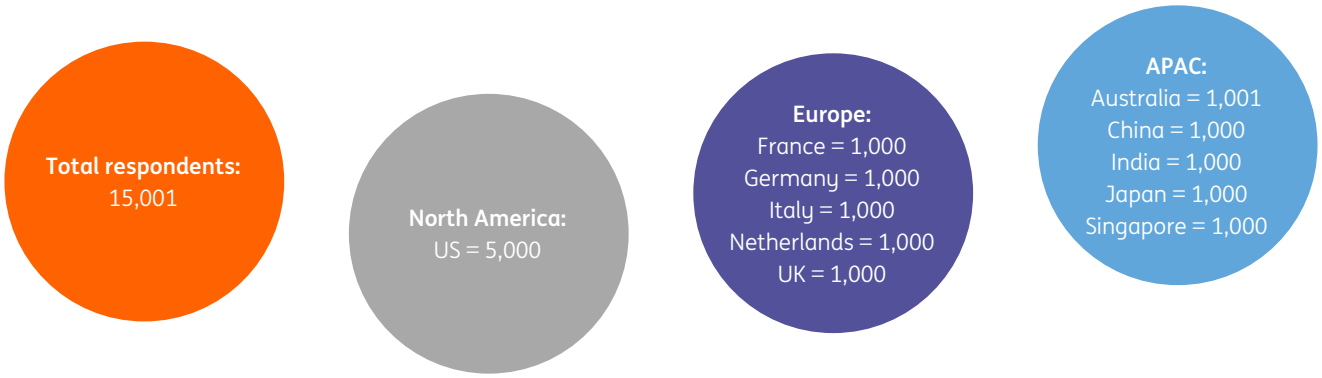
Our latest consumer research provides fresh insight into three industries: fashion, food, and electronics. Circular models offer huge business opportunities to companies in these industries, and all consumer groups frequently interact with brands in these markets.

Our findings highlight where consumers are already engaging in circular activities, their appetite for new product and service models, and how these shifting preferences will change the way that businesses operate and generate revenues in the future.

1 Europe's circular-economy opportunity, McKinsey & Company, September 2015
2 Waste to Wealth: Creating Advantage in a Circular Economy, Accenture, 2015
3 Opportunity and disruption: How circular thinking could change US business models, ING, 2019

About the research

Figure 1: Survey demographics



Age distribution							Gender		
18–24 years	25–34 years	35–44 years	45–54 years	55–64 years	65–74 years	75+ years	Female	Male	Other
1,615	2,821	2,981	2,785	2,397	1,513	889	7,721	7,266	14

A nationally representative sample, based upon age, gender and income, was targeted within each market.

We partnered with Longitude, of the Financial Times Group, to survey 15,000 consumers across 11 countries during H2 2019.

Consumers were asked about their attitudes and current interactions with fashion, food, and electronics brands, as well as their appetite for emerging product and service models.

We also conducted a series of in-depth interviews with executives in the fashion, food, and electronics industries. We would like to thank our interviewees for the valuable insights they shared about their companies' circular economy strategies:

- Quentin Drewell, Strategy Principal & UK Circular Economy Lead
  Accenture
- Pam Batty, Vice President Corporate Responsibility
  Burberry
- Marc Lichtenstein, Joint Chief Executive Officer
  Close the Loop
- Joe Iles, Circular Design Programme Lead
  Ellen MacArthur Foundation
- Nik Engineer, Executive Lead - North America (Interim) and Executive Lead - Business Programs
  Ellen MacArthur Foundation
- Joanna Drake, Deputy Director General, in charge of Coordination of Resource-efficiency policies and instruments, DG Environment
  European Commission
- Thibault Sorret, Chief of Staff
  Lufa Farms
- Phil Graves, Managing Partner, **Tin Shed Ventures** and Corporate Development
  Patagonia
- Daan Weddepohl, CEO & Founder
  Peerby
- Monika Collée-Nussbaum, Global Director Communications & CSR
  Teleplan International

Executive summary

The majority of consumers believe they have a role to play in tackling environmental issues.

More than eight out of ten (83 percent) consumers think their own behavior and choices can have a positive impact on addressing global environmental challenges.

Figure 2: The majority accept they have a personal responsibility to help address global environmental challenges

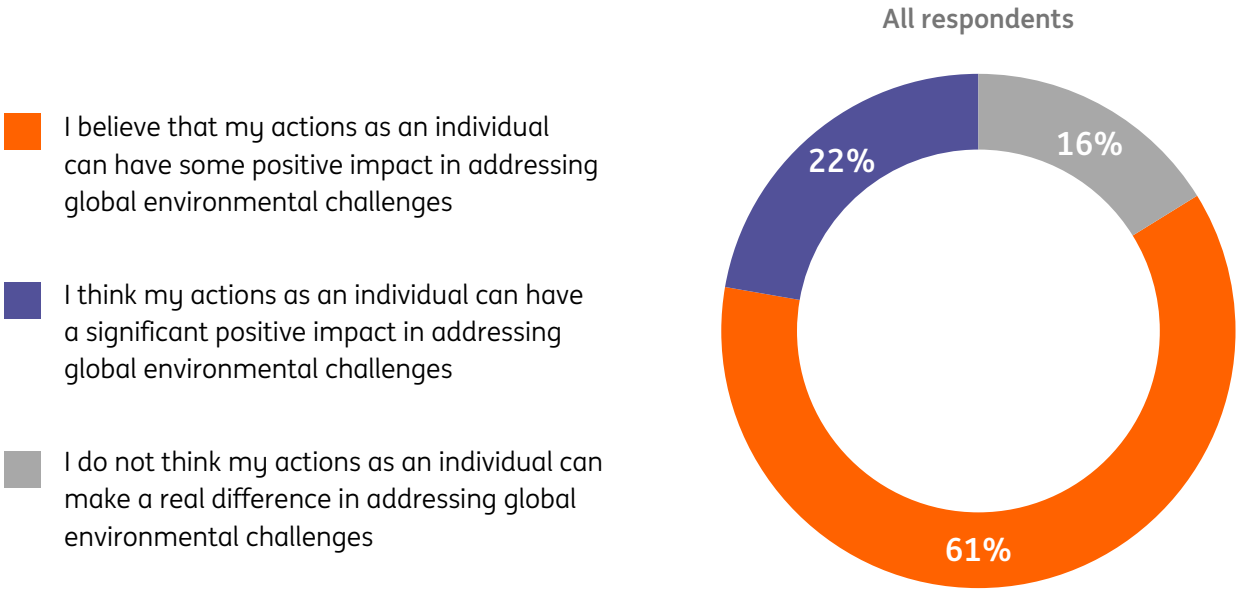


Figure 3: Consumers are becoming more influenced by environmental concerns – half are even willing to pay more to secure change

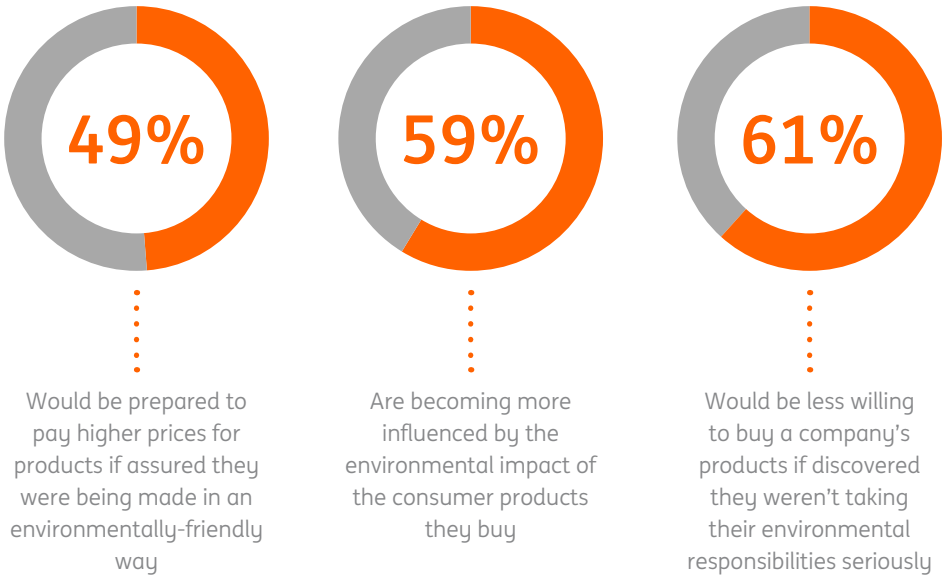
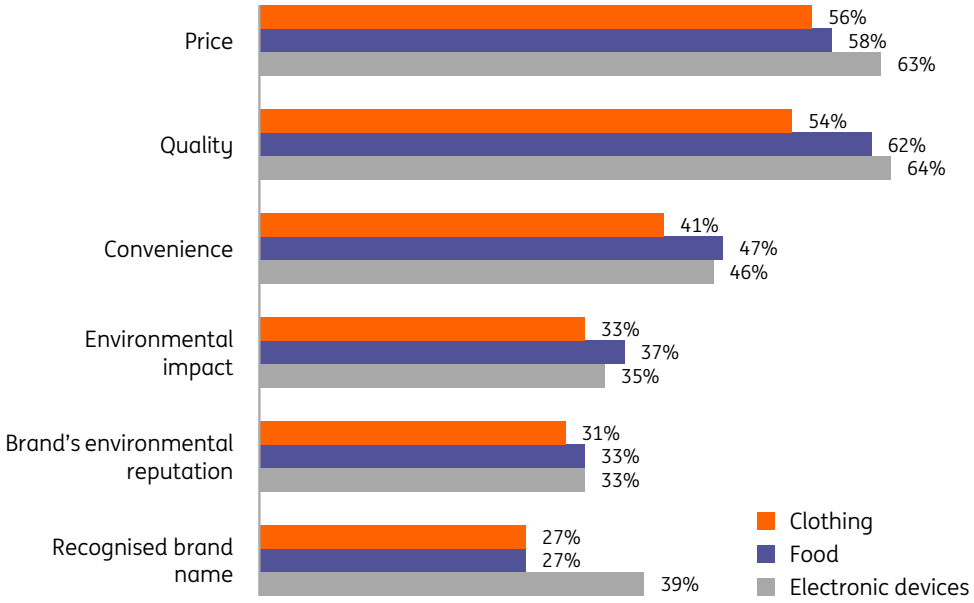


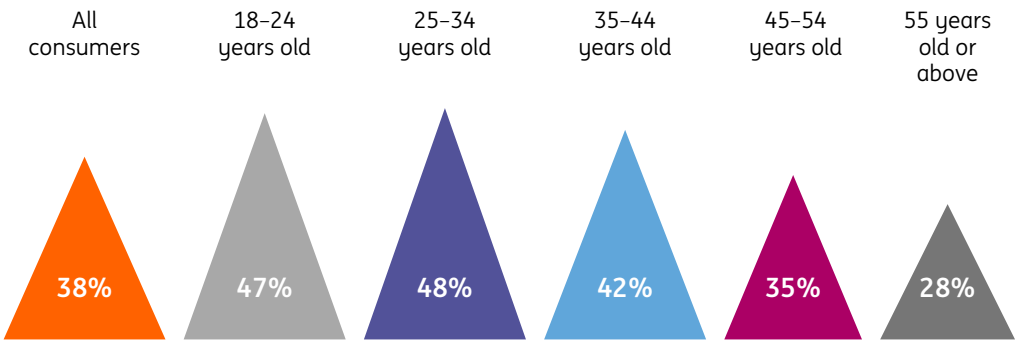
Figure 4: How important are the following considerations when you are buying clothing/food/electronic items?
(Percentage selecting 8–10 on importance scale of 0–10)



The environmental impact of companies' products has overtaken brand recognition in consumer buying decisions.

When buying food and clothing, more consumers say environmental impact is a highly important factor than those who say the brand name is highly important. And 61 percent say they'd be less willing to buy a company's products if they discovered it was performing poorly on environmental practices.

Figure 5: I have actively stopped buying a company's food or drink products after discovering that the company is not environmentally responsible



Companies that don't respond to sustainability demands face a real threat to profitability.

Consumers are already acting in significant numbers: 38 percent have boycotted food brands because of perceived bad environmental practices – a figure that reaches 48 percent among younger consumers.

Several barriers stand in the way of deeper consumer engagement with circular models.

While consumers' sustainability concerns are translating into action, this often involves taking the path of least resistance, such as through buying decisions and convenient options like recycling. Only a small minority engage in actions that require additional effort on their part, whether that be repairing, renting, or adopting reusables. Some of these barriers are:

- **Awareness and education:** Consumers lack awareness of some circular product models, as well as how to participate in circular behaviours. In the electronics industry, for instance, only 21 percent think companies provide detailed information on the overall environmental impact of products; 41 percent don't know where to access repair services; 71 percent aren't aware of device-sharing platforms; and 39 percent can't distinguish between recyclable and non-recyclable plastics.

- **Empowerment and reassurance:** Educational gaps mean consumer empowerment is lacking, too. The top reason for not repairing clothes is consumers' belief that, to do so, they need skills they don't have, with 48 percent saying this. Meanwhile, concern about implications for data security (42 percent) is the second-most cited concern around leasing electronic devices.

- **Circular infrastructure and convenience:** Engagement with more novel circular practices is being held back by the perceived effort required: 41 percent think renting clothes would require a lot more effort, and 36 percent say time is a barrier to repairing devices. At a country level, Chinese and Indian consumers attach high importance to companies' adopting circular practices, but most European consumers are ahead of them when it comes to activities such as recycling. This may be down to a lack of infrastructure to support circular practices in these developing markets.

- **Cost:** Price is still a decisive factor for many consumers when buying clothes, food, or electronic devices. More than half (54 percent) of consumers still choose low-cost fast-fashion items over more expensive, more durable ones. And, after quality and freshness, pricing comparable to that of mass-produced food would be most likely to motivate consumers to opt for locally sourced and produced food.

Figure 6: How important is it that companies you buy products from adopt a 'circular economy' approach?
(Percentage selecting 8–10 for importance on a 0–10 scale)?

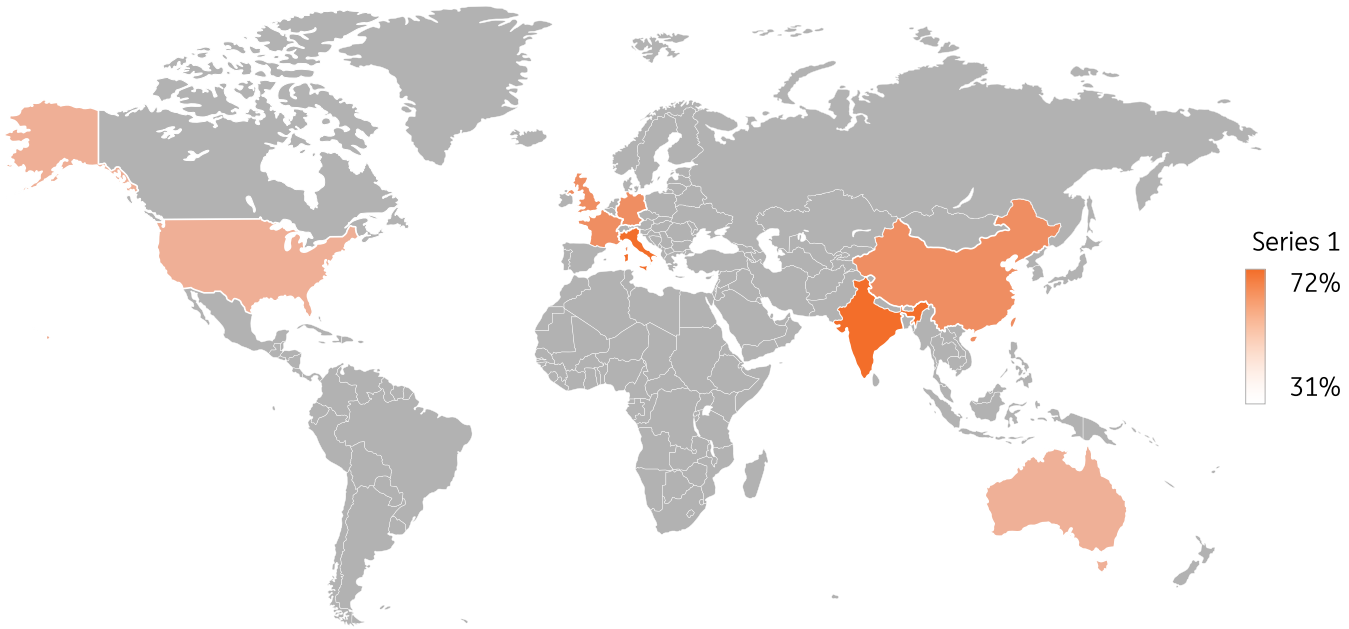


Figure 7: Number of consumers that regularly recycle food and drinks packaging

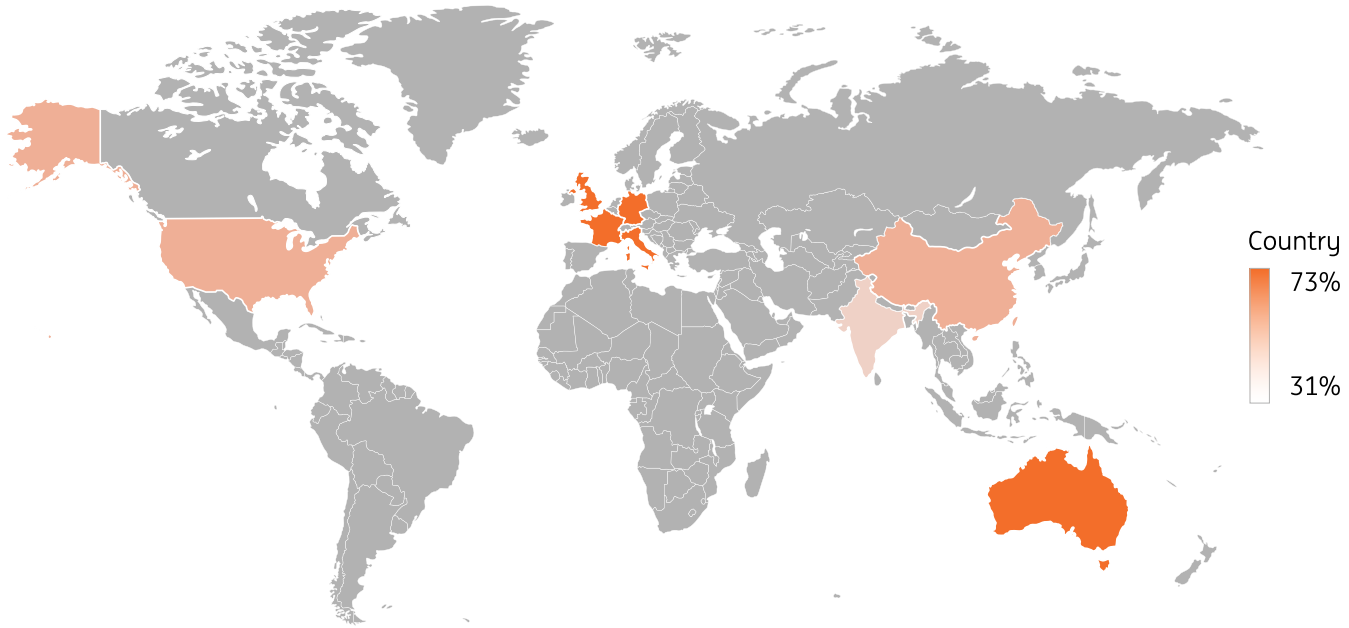
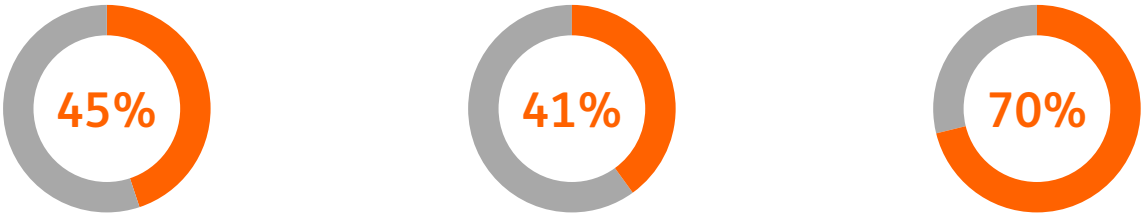


Figure 8: Electronics: Cost and awareness are bigger barriers to consumers repairing devices than the time and effort involved



Are unlikely to repair electronic devices because of the cost involved

Don't know where they can get their electronic devices repaired

Would be more likely to repair electronic devices if brands offered a low-cost repair service

Brands can help bridge the engagement gap through better communication and doubling down on design innovation

Plugging consumer awareness gaps – by explaining a product's overall environmental footprint or how to access repair and rental services – could have a positive, measurable impact on uptake of circular practices. Meanwhile, more innovative design thinking to make repair easier and cheaper, and to make products easier to share and resell, will empower consumers to undertake these activities.

A deeper understanding of consumer motivations will help companies strengthen relationships as they accelerate transformation

Our analysis identifies three broad consumer groups in relation to the circular economy: 'Circular Champions', 'Circular Sympathisers', and 'Non-engagers'. Champions are already prioritizing sustainability in decision-making, but they need better information and access to engage with more novel circular practices. Sympathisers are increasingly concerned about sustainability, but convenience remains king for them, and they're only likely to adopt behaviours that don't significantly disrupt their existing lifestyles. Non-engagers, the largest group, are less engaged with sustainability issues; they need non-environmental incentives to adopt new modes of behaviour and consumption.

Testing consumers' circular practices

Consumers can participate in the circular economy in a number of ways. In our study, we tested consumers' engagement with a number of circular practices across the fashion, food, and electronics industries:

- **Purchasing decisions:** Are consumers being influenced by sustainability factors when buying products?
- **Recycling:** To what extent are consumers recycling clothing, food waste and packaging, and e-waste?
- **Reusing:** Are consumers adopting reusable food and drinks containers?
- **Repairing:** Are consumers repairing clothes and electronic devices?
- **Secondary markets:** Are consumers buying and selling items in second-hand clothing and electronics markets?
- **Product-as-a-Service and product sharing:** Are consumers renting clothes and electronic devices? Or using sharing platforms to rent or borrow devices? How open are they to doing this?

Understanding consumers' circular personas

Through their choices, consumers will influence how quickly companies are able to transition to circular models, how those models are delivered and, ultimately, how successful they become.

By analyzing the drivers and behaviours of the respondents in our study, we discovered that consumers tend to fall into three broad groups, based on two key dimensions:

1. Attitudes towards sustainability:

- How much importance do consumers place on the environmental impact of products they buy?
- And the environmental performance of the brands they buy from?

2. Willingness to change their behaviours:

- Are consumers willing to pay more for sustainable products?
- Would they expend additional effort to be more environmentally-friendly?

We identified these three consumer groups:

- Non-engagers (42 percent of our survey sample)
- Circular Sympathisers (30 percent of our sample)
- Circular Champions (28 percent of our sample)

Our persona analysis reveals significant differences in the outlook and behaviour of the various consumer groups, and shows that an array of engagement tactics and incentives will be required to accelerate their adoption of circular practices.

In the following sections of the report, we analyse how these different consumer groups engage in circular practices across the fashion, food, and electronics industries; the barriers to their increased adoption of these practices; and the changes companies can introduce to encourage stronger uptake.

Figure 9: Consumers can be grouped according to their 'Circular Persona'

Non-engagers

- **Don't factor sustainability into buying decisions** – just 5% say environmental impact of products is very important.
- **Will not pay higher prices** – Only 14% prepared to pay more for sustainable products.
- **Skeptical about individual responsibility** – Only 10% think their actions can have a significant impact on addressing environmental challenges.

Circular Sympathisers

- **Care about sustainability** – 62% say it's very important companies they buy from adopt circular practices.
- **Prepared to pay more to support change** – 72% would pay a bit more for products with environmental guarantees.
- **But will not inconvenience themselves** – 72% say they won't partake in recycling and repair of products if it means more effort on their part.

Circular Champions

- **Sustainability is critical** – 75% say environmental impact of products is very important to them, even more so than price (66%).
- **Prepared to pay more to support change** – 77% would pay a bit more for products with environmental guarantees.
- **Willing to go the extra mile for sustainability** – 87% say they will recycle and repair products even if it means more time and effort on their part.

Figure 10: Who are the Non-engagers?

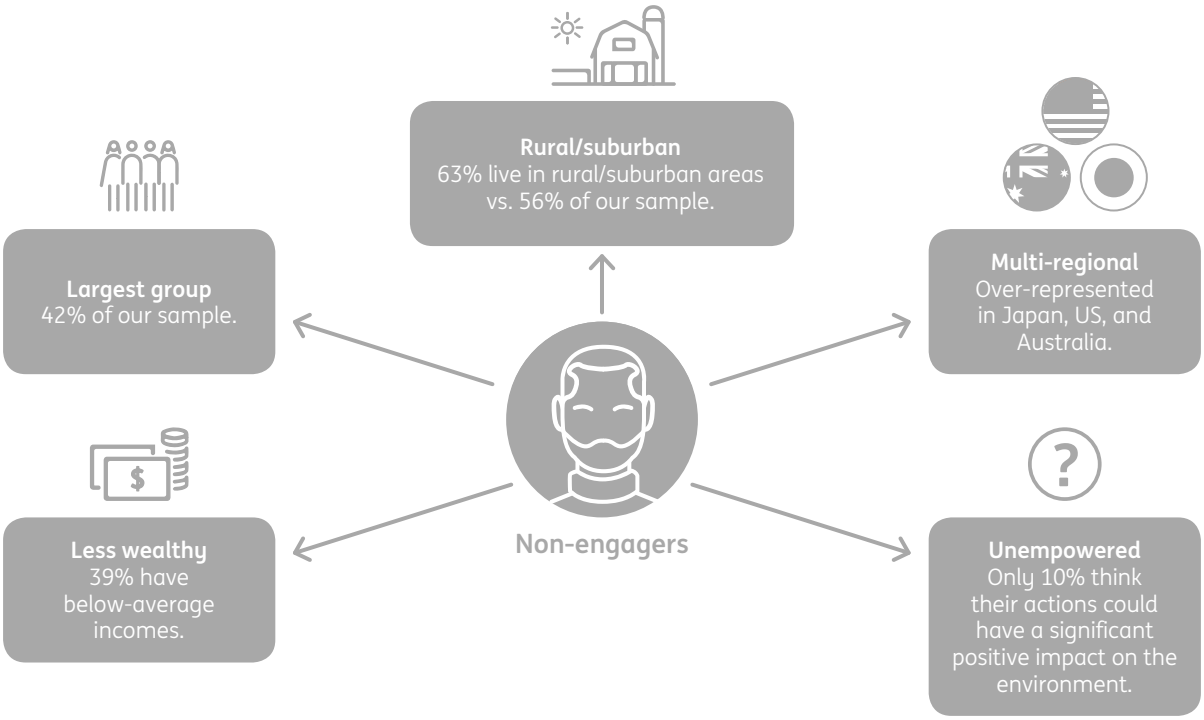


Figure 11: Who are the Circular Sympathisers?

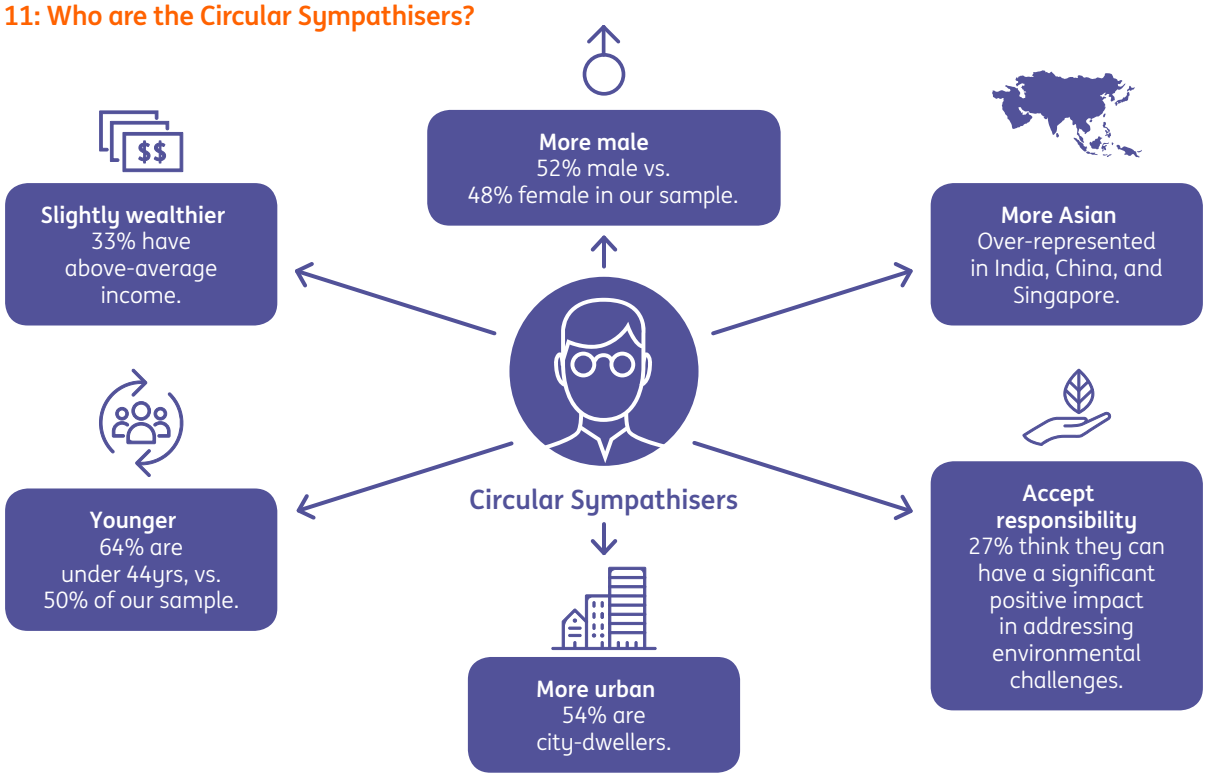
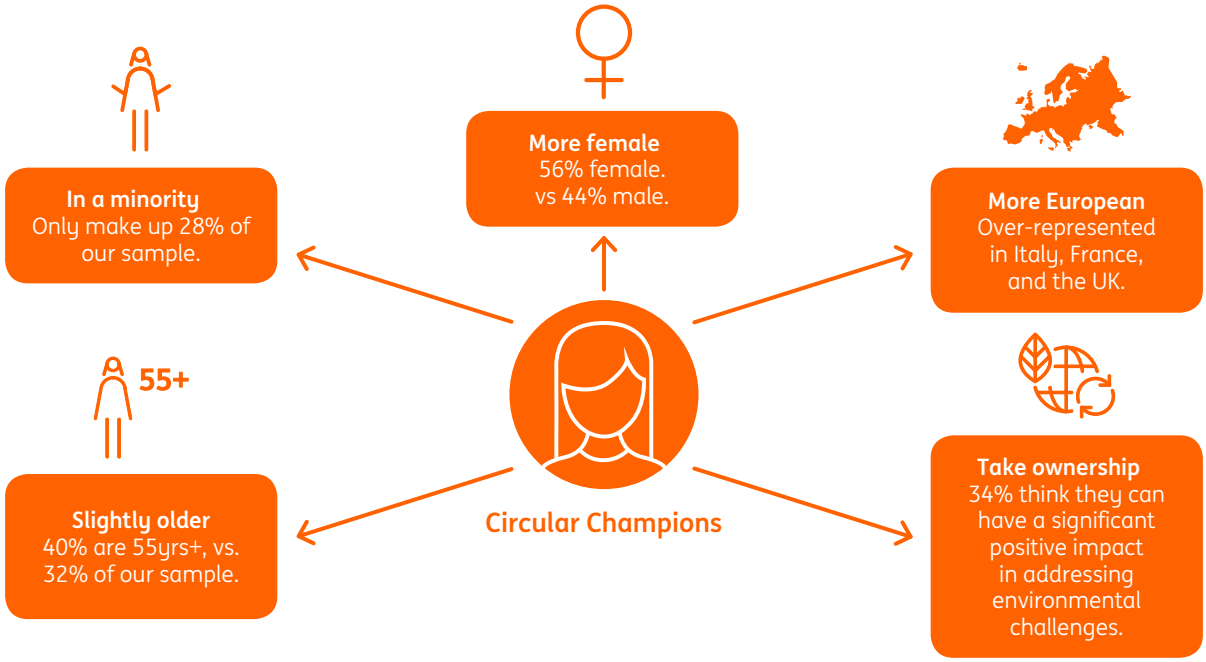


Figure 12: Who are the Circular Champions?



Driving circular consumption in fashion

Fashion sector: circular economy round-up

Key policy developments

- **Europe:** The new EU Waste Directive requires member states to ensure textiles are collected separately by 2025.[4] The EU also has a voluntary Ecolabel for Clothing and Textiles, covering use of harmful substances, pollution reduction and extended lifetime of clothing; around 60 textiles and footwear producers currently hold licenses.[5]
- **North America:** In New York State, legislation stipulates that, if more than 10 percent of a business' commercial waste is textile material, they must recycle or repurpose it.[6]
- **APAC:** In 2018, China banned the import of waste textiles and set a target to reach 4.5m tons of recycled textile production by 2020.[7]

Industry targets and commitments

- 90 global fashion brands have signed up to the 2020 Circular Fashion System Commitment. In total, signatories have set 213 targets related to circular design, garment collection, resale, and use of recycled materials.[8]
- As part of the Ellen MacArthur Foundation's Make Fashion Circular initiative, 16 fashion brands and manufacturers have adopted Jeans Redesign Guidelines, committing to produce jeans, at scale, which meet requirements on durability, material health, recyclability, and traceability.[9]

4 Directive (EU) 2018/851 of the European Parliament and of the Council of 30 May 2018 amending Directive 2008/98/EC on waste
5 EU Ecolabel Clothing and textiles/textile products
6 Recycling for businesses: Special cases, New York City Department of Sanitation
7 Textile waste in mainland China, Embassy of the Kingdom of the Netherlands in China, June 2019
8 2019 status report: 2020 Circular Fashion System Commitment, Global Fashion Agenda, 2019
9 Make Fashion Circular launches the Jeans Redesign, Ellen MacArthur Foundation, July 2019

Current circular adoption in fashion

Gauging global sentiment

- **Buying decisions:** 33 percent say the environmental impact of clothes is highly important in buying decisions, rising to 37 percent for 25-34 year olds.
- **Motivations:** 47 percent of those recycling clothes say environmental benefits are a top motivation, while 41 percent of those repairing clothes say protecting the environment is a key incentive to do so.
- **Behaviours:** 54 percent still tend to buy multiple 'fast-fashion' clothing items each season.
- **Emerging models:** 22 percent would be likely to rent everyday work or casual fashion outfits.

There is still a tendency to buy fast-fashion items among all consumer personas, with 64 percent of Non-engagers – the largest of our groups – likely to turn to this option. That said, fewer than half of Sympathisers and Champions are likely to opt for fast-fashion over higher-quality, more durable clothing.

The tide may nevertheless be turning away from fast-fashion, albeit very gradually. For all of the persona groups, the quality of an item of clothing was a primary influence on buying decisions, while a majority appear to acknowledge the value trade-off of quality versus price: 53 percent of Non-engagers and 79 percent of Champions would be prepared to pay higher prices for longer-lasting clothes.

Only a minority of consumers in general regularly repair their clothes, although nearly half of Champions do so. A perceived lack of skills is hampering all groups in this respect, although most could be persuaded to put more effort into repair by arguments around extending the wearable life of their favorite items of clothing and, of course, saving money.

Participation in pre-owned markets is generally low, although it is most popular among Circular Sympathisers, who, as a younger group, may be taking advantage of online platforms to do this with minimal effort. Despite recycling and repairing less, US consumers are more likely than those in Europe to buy pre-owned clothes.

"Building the best, most durable products is incredibly important to Patagonia and something we have been doing since our company was founded. I think the broader industry is drifting that way, as they see the market for pre-owned expanding, and recognize fast-fashion is becoming a thing of the past. They're making strides to increase durability and quality and to have that timeless design aspect."

Phil Graves
Managing Partner
Tin Shed Ventures and Corporate Development
Patagonia

Figure 13: Circular uptake

	Non-engagers	Circular Sympathisers	Circular Champions
Fast-fashion	• 64% tend to buy lower-cost, fast-fashion items each season	• 49% tend to buy lower-cost, fast-fashion items each season	• 43% tend to buy lower-cost, fast-fashion items each season
Durable	• 34% would pay more for fully-recyclable clothes • 53% would pay more for clothes guaranteed to last longer	• 68% would pay more for fully-recyclable clothes • 77% would pay more for clothes guaranteed to last longer	• 73% would pay more for fully-recyclable clothes • 79% would pay more for clothes guaranteed to last longer
Recycle/Repair	• 39% recycle clothes regularly • 28% repair clothes regularly	• 42% recycle clothes regularly • 33% repair clothes regularly	• 63% recycle clothes regularly • 47% repair clothes regularly
Secondary markets	• 12% regularly sell their second-hand clothes • 20% regularly buy second-hand clothes	• 24% regularly sell their second-hand clothes • 25% regularly buy second-hand clothes	• 18% regularly sell their second-hand clothes • 26% regularly buy second-hand clothes

Figure 14: A regional view

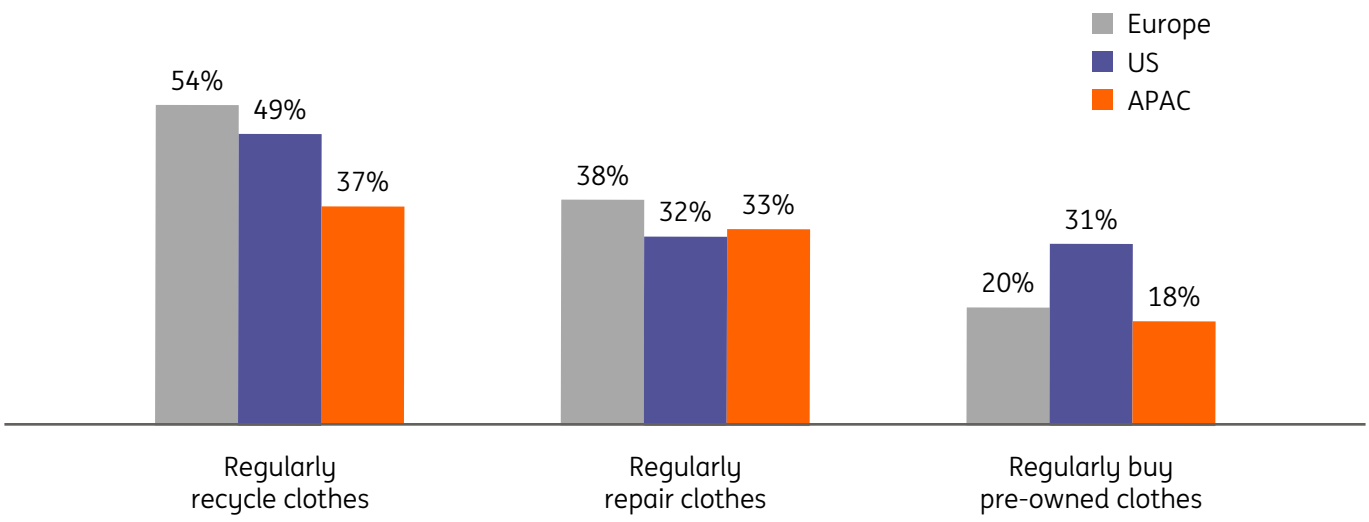


Figure 15: Promoting clothing repair

Non-engagers	Circular Sympathisers	Circular Champions
What motivated you to repair your clothes?		
1. Make loved clothes last longer (67%) 2. Cheaper (65%) 3. Environment (26%) 4. Brand offers repair service (15%)	1. Make loved clothes last longer (56%) 2. Cheaper (49%) 3. Environment (45%) 4. Brand offers repair service (34%)	1. Make loved clothes last longer (68%) 2. Environment (54%) 3. Cheaper (54%) 4. Brand offers repair service (13%)
Why don't you repair your clothes?		
1. Lack the skills (48%) 2. Can buy cheap clothes (34%) 3. Expensive (28%) 4. Inconvenient (27%) 5. Prefer brand new clothes (22%)	1. Lack the skills (43%) 2. Inconvenient (32%) 3. Can buy cheap clothes (31%) 4. Expensive (30%) 5. Prefer brand new clothes (29%)	1. Lack the skills (55%) 2. Expensive (33%) 3. Can buy cheap clothes (27%) 4. Prefer brand new clothes (23%) 5. Inconvenient (23%)

"Our customers make an investment when they buy Burberry products, so they tend to want to love them for longer. That's a message we're trying to promote more when it comes to repairing clothes. We're also helping customers to customise pre-owned clothes as a creative way to encourage longevity."

Pam Batty
Vice President Corporate Responsibility
Burberry

Appetite for emerging circular models

As in other sectors, circular economy thinking is leading the fashion industry to introduce models that move away from the outright ownership of products.

We have begun to see more companies offering clothing lease and subscription models, from US-based Rent the Runway's rental service targeting working women, to Frontrow's designer clothes rental service in the UK, to Danish start-up Vigga offering subscription babywear.

Our findings reflect the nascency of these models. Among all consumer groups, there is appetite for clothing rental to meet short-term, practical needs. However, it is only among Circular Sympathisers – the youngest, most urban group in our study – that we see significant appetite for renting everyday outfits.

Figure 16: Appetite for clothing rental models

Question: How likely would you be to rent the following items of clothing in future, rather than buying and owning them? (% 'likely' + 'very likely')

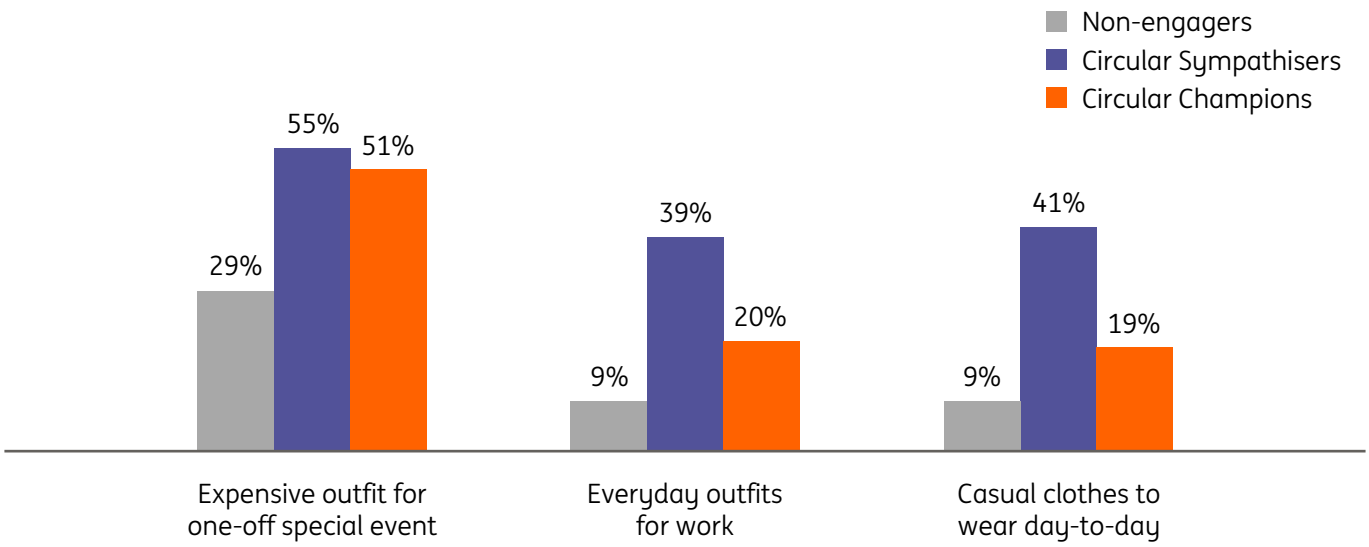


Figure 17: Incentives and barriers to renting

Non-engagers

Circular Sympathisers

Circular Champions

What attracts/might attract you to rent clothes in future?		
1. None of the above (38%)	1. Practical if plan to wear once (37%)	1. Practical if plan to wear once (48%)
2. Practical if plan to wear once (36%)	2. Cheaper (34%)	2. Environment (39%)
3. Cheaper (28%)	3. Environment (33%)	3. Cheaper (35%)
4. Save storage space (19%)	4. Save storage space (31%)	4. Save storage space (25%)
What makes you unlikely to consider renting clothes?		
1. Inconvenient (41%)	1. Prefer brand new clothes (37%)	1. Inconvenient (44%)
2. Prefer brand new clothes (37%)	2. Inconvenient (37%)	2. Unaware of this service (41%)
3. Unaware of this service (32%)	3. Unaware of this service (35%)	3. Prefer brand new clothes (36%)
4. Unsure of pricing (26%)	4. Unsure of pricing (31%)	4. Unsure of pricing (33%)
5. Expensive (25%)	5. Expensive (25%)	5. Expensive (25%)

The sustainability benefits of rental models would be an important incentive for both Circular Champions and Circular Sympathisers, but Non-engagers are reluctant to embrace renting, with practicality and cost savings the only clear enticements. The perceived inconvenience of renting clothes is the predominant barrier to further adoption.

Industry implications: circular priorities for fashion companies

Our research highlights the rising influence of environmental factors on consumers' decision-making when buying clothes, strong adoption of recycling practices, and a gradual potential shift in the consumer mindset away from fast-fashion and towards more sustainable consumption.

To facilitate this change, fashion brands need to accelerate their efforts in the following areas:

- **Informing consumers on sustainability:** Greater transparency is key. Consumers increasingly want to know which materials are being used, how they are sourced, and whether they are recyclable. It's a complicated story to tell and it's difficult to convey all of this information via traditional labelling. However, brands can educate consumers online, via mobile apps, and in store.
- **Targeted incentive models:** For the least-engaged consumer groups, cost-effectiveness is a key incentive to repair clothes. Financial incentives to repair and/or return worn clothes should be effective in driving consumer uptake, while the cost for brands will be offset by retaining materials for reuse, fueling resale business and ensuring repeat business from customers.
- **Promoting rental models for clothing:** Clothing rental is a growing market and an important route to a sustainable future for the industry. Although in its early stages, our research shows there is substantial appetite for such models among Circular Sympathisers – a younger, more urban demographic. Broadening the appeal to other groups, however, will require raising awareness of rental as an option, providing greater clarity on cost benefits, and harnessing technology to make such services more convenient to use.
- **Collaborative design initiatives:** The industry's circular design challenge is substantial: designing for recycling and reuse means removing harmful substances from the process, tracing materials across the lifecycle, and redesigning material flows. Collaboration with suppliers – and even competitors, in the case of Jeans Redesigned initiative – and staying close to technology start-ups, whether through partnerships or corporate venturing, will be key strategies in meeting this challenge.

"If you look at industries that have made the switch from ownership to access, the leading brands usually combine digital innovation with a great customer service, reliability and protection, making those solutions more attractive than traditional models."

Joe Iles
Circular Design Programme Lead
Ellen MacArthur Foundation

"With our ECONYL initiative, we used old fishing nets and industrial plastic, which, on the face of it, might not sound attractive, but we turned it into a really beautiful, luxury product and the response from our customers has been fantastic."

Pam Batty
Vice President Corporate Responsibility
Burberry

Case study

Phil Graves

Managing Partner, Tin Shed Ventures and Corporate Development, Patagonia

New routes to growth through PaaS and pre-owned: Patagonia

Patagonia is one of the global leaders in terms of implementing circular economy practices. It first introduced a repair service for customers in the mid-1970s and has been one of the industry's pioneers in 'recommerce', launching its clothing resale program in 2017. Here, Phil Graves, Managing Partner, Tin Shed Ventures and Corporate Development at Patagonia, explains how the company has driven growth through recommerce, its vision for PaaS, and its innovation priorities.

On the fast-expanding recommerce market...

"The pre-owned market is catching fire. It's growing over 20 times faster than the overall apparel industry, and analysts expect it to be a $50-billion market by 2023. One question I get asked a lot is, 'What about cannibalization of revenue?' Our perspective is that we would rather sell a used jacket and have a profit margin than sell a new jacket. And, in our experience, customers are demanding these products. We're seeing strong metrics for our Worn Wear pre-owned business unit: it grew 40 percent last year, it's profitable and it has a younger customer base, too – 10 years younger than our Patagonia customers, on average. That's where the industry is moving, so, if you want to stay in business, you need to look at this space and enter this space."

On rental models...

"We were one of the first apparel companies to get into the recommerce space and sell used clothes. That's been a great step and we also think renting and leasing, and other models providing sensible alternatives to buying new, are going to be a large part of the apparel market in the future, so we're looking closely at all of those avenues."

On transitioning to circular models...

"The used gear business is a completely different model. You don't make hundreds of thousands of units and then sell those units, you have to buy back inventory, balance supply and demand, manage cleaning, and take the seasons into account, too. So those are challenges that we've overcome. We offer incentives for customers to trade in, so we will buy back the garment from our customer and then give them a gift card or credit. If you're starting a recommerce business now, there are partners you can team up with who will handle the cleaning, handle the publishing online and provide warehouse capacity. There will be similar obstacles with setting up rental and leasing models, but the effort that goes into it is worth it, because you can again have a vibrant, growing business that can be profitable."

On innovation...

"The technologies available to break down a garment and turn it into a new garment are changing rapidly. We're fully engaged with those technology companies and also bringing those learnings back to our designers so, when they design products, they can do it in a way that's compatible with the end-of-life technologies. We're also using our venture capital arm, Tin Shed Ventures, to scout the best technologies to recycle at the end of the life of a garment and keep the raw materials, like the polyester and cotton, in play."

Driving circular consumption in food

Food sector: circular economy round-up

Key policy developments

- **Europe:** The EU and EU countries have committed to meeting the UN's Sustainable Development Goal 12.3 (SDG 12.3) target to halve per capita food waste at retail and consumer levels by 2030.[10] The European Commission has set targets for all plastic packaging on the EU market to be recyclable by 2030.[11]
- **North America:** In October 2018, the US Department of Agriculture (USDA), the US Environmental Protection Agency (EPA), and the US Food and Drug Administration (FDA) launched the Winning on Reducing Food Waste Initiative, one goal of which is to reduce food loss and waste by 50 percent by 2030.[12] The California State Legislature failed to pass two single-use packaging measures in 2019 but these are due to be re-considered in the early-2020 legislative session.[13]
- **APAC:** In 2017, the Australian government launched a National Food Waste Strategy to support collective action towards halving Australia's food waste by 2030.[14]

Industry targets and commitments

- Of the world's 50-largest food companies, more than two-thirds have set targets in line with SDG 12.3 and more than 40 percent are now measuring their food loss and waste.[15]
- More than 400 organizations, including nearly 200 companies, have signed the Ellen MacArthur Foundation (EMF)-led New Plastics Economy Global Commitment (Global Commitment). Its June 2019 progress report shows that 50 brands are piloting or expanding reuse and refill schemes, while 40 companies, including Danone, MARS, Nestlé, The Coca-Cola Company, and Unilever, now publicly report their annual volumes of plastic packaging production and use.[16]

10 EU actions against food waste, European Commission
11 Tackling plastic pollution: Commission sets 2030 target to make all plastic packaging recyclable, European Commission, January 2018
12 Winning on reducing food waste: FY 2019-20 federal interagency strategy, April 2019
13 California ballot initiative filed to phase out single-use packaging and ban polystyrene food and beverage containers, Arnold & Porter Kaye Scholer, November 2019
14 National Food Waste Strategy: Halving Australia's food waste by 2030, Commonwealth of Australia, 2017
15 SDG Target 12.3 On food loss and waste: 2019 Progress Report, Champions 12.3, September 2019
16 New plastics economy global commitment: June 2019 report, Ellen MacArthur Foundation, June 2019

Current circular adoption in food

Gauging global sentiment

Buying decisions: 48 percent of consumers under 34 years old say they've boycotted a food company's products after discovering the company was failing to address environmental concerns.

Motivations: 64 percent of consumers say improved freshness would be a primary motivation to buy more locally produced food.

Behaviors: 55 percent regularly recycle food and drinks packaging.

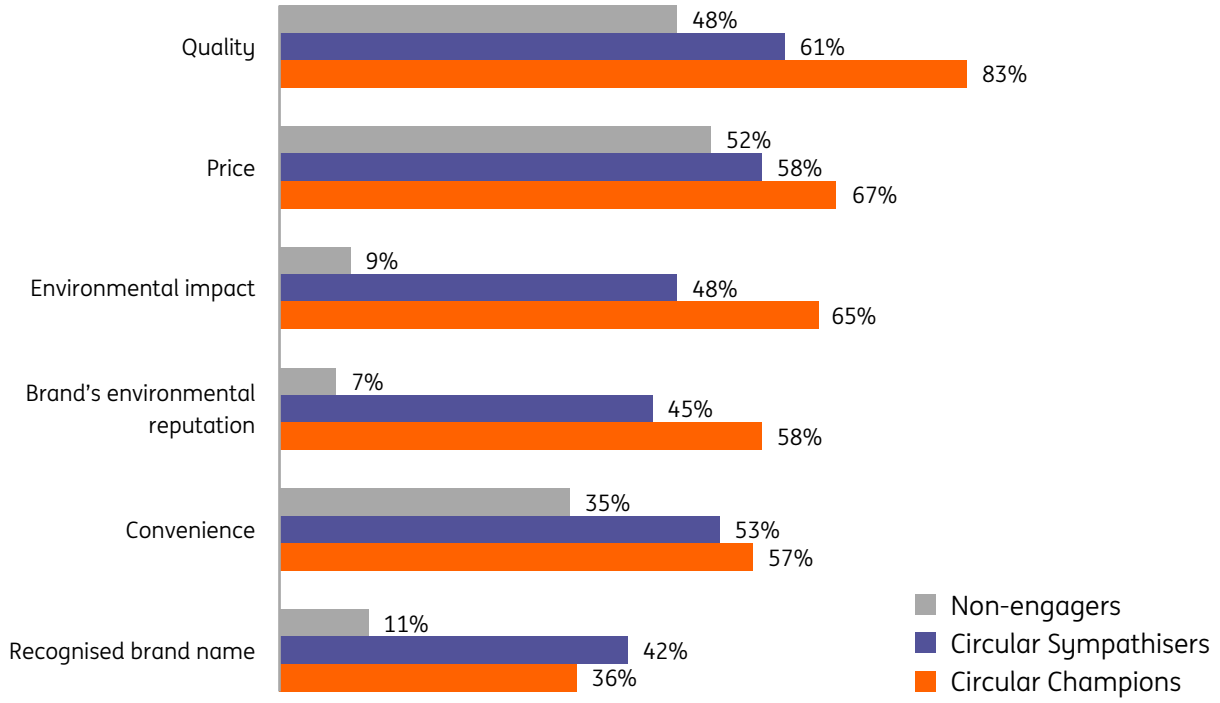
Emerging models: 33 percent of consumers would be comfortable adopting refillable packaging models.

In a sign of consumers' fast-growing concerns around the environmental impact of their food, both Circular Champions and Circular Sympathisers put more emphasis on this than on brand recognition when they buy food today. Only Non-engagers – whose emphasis is almost entirely on price, quality, and convenience – are largely not swayed by environmental impact.

"Five years ago, I was still very skeptical that people were actually making purchasing decisions based on their green conscience, but that has changed. Now, we've found that nearly three-quarters of consumers (72 percent) say they buy more environmentally friendly products today than five years ago."

Quentin Drewell
Strategy Principal & UK Circular Economy Lead
Accenture

Figure 18: How important are the following considerations when you are buying everyday food items?
(Percentage selecting 8-10 on importance scale of 0-10)



Consumer engagement in circular practices is relatively strong, even among Non-engagers, when it comes to recycling food packaging and taking reusable carrier bags from home when food shopping. But, given these models are well embedded in many countries now, there must be a drive to convert those that still abstain. There is a need to better connect consumers with the positive outcomes of this behaviour, as, even among Circular Champions, 48 percent say they have no idea what happens to the packaging they recycle at home after it has been collected.

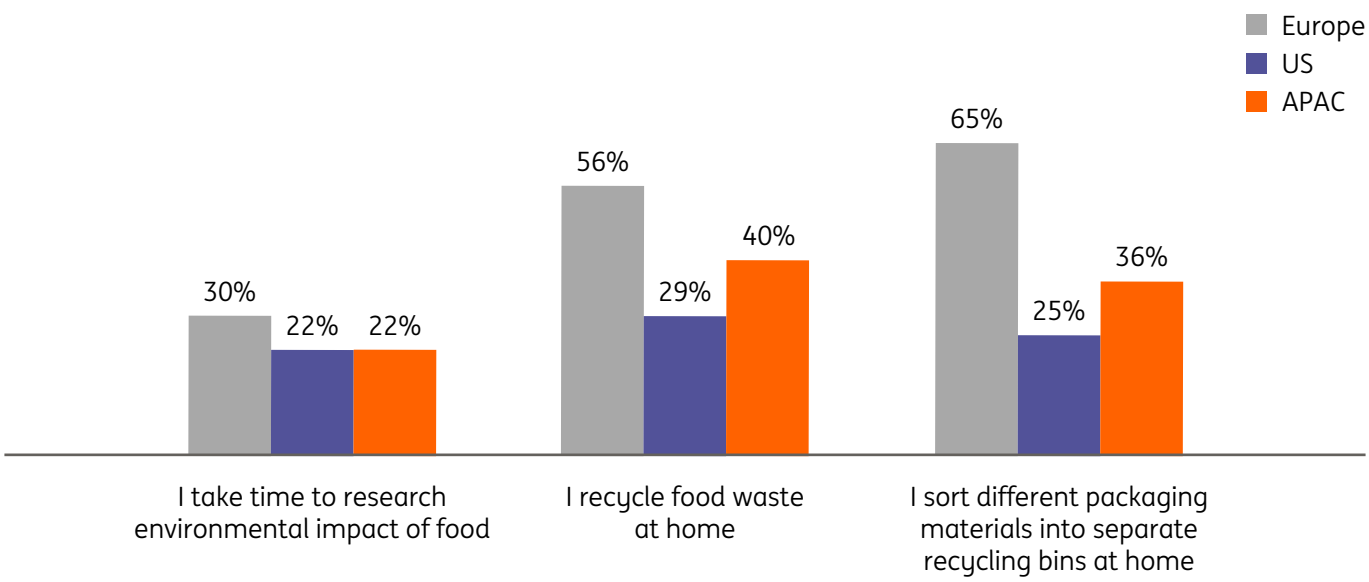
There are substantial differences between the persona groups in other areas, however. When it comes to recycling food waste, for example, Non-engagers lag behind, while only Circular Champions – the smallest group in our survey sample – demonstrate commitment to researching the environmental impact of food products. Meanwhile, the adoption of reusable drinking cups is limited across all persona groups.

At regional level, European consumers tend to be ahead of the curve when it comes to sustainable food-consumption habits, a situation that has been promoted by longstanding EU legislation in this area.

Figure 19: Circular uptake

	Non-engagers	Circular Sympathisers	Circular Champions
Recycling	• 29% recycle food waste • 49% regularly recycle food packaging	• 53% recycle food waste • 48% regularly recycle food packaging	• 48% recycle food waste • 74% regularly recycle food packaging
Reusables	• 10% regularly carry reusable cups • 52% regularly carry reusable food shopping bags	• 26% regularly carry reusable cups • 55% regularly carry reusable food shopping bags	• 24% regularly carry reusable cups • 77% regularly carry reusable food shopping bags
Research	• 18% take time to research the environmental impact of food they buy • 14% think food companies provide strong information about environmental impact	• 16% take time to research the environmental impact of food they buy • 37% think food companies provide strong information about environmental impact	• 43% take time to research the environmental impact of food they buy • 32% think food companies provide strong information about environmental impact

Figure 20: A regional view



"Consumer education is key. The EU Packaging and Packaging Waste Directive of 1994 made companies ensure consumers obtained the necessary information about the collection systems available to them, their own role in contributing to the recovery and the recycling of packaging, and also the meaning of the labelling. There's still a way to go, however. We're working on guidance around separation of materials in collection and we may also consider harmonisation, so all European households have the same recycling instructions."

Joanna Drake
Deputy Director-General
DG Environment, European Commission

Appetite for more circular models

Our survey finds that, in addition to paying more attention to the environmental impact of the food they buy, the majority of consumers are becoming more conscious of the packaging waste created by their food consumption. Even among Non-engagers, nearly two-fifths say this is the case.

The EMF-led Global Commitment has garnered support from some of the world's largest food and drinks companies, setting a target of 100 percent of plastic packaging to be reusable, recyclable, or compostable by 2025. But, as they increasingly recognize the business benefits of this model, some brands are going further. For instance, Unilever, one of the signatories to the Global Commitment, announced two further 2025 commitments in October 2019: to collect and process more plastic packaging than it sells, and to halve the amount of virgin plastic in its packaging.

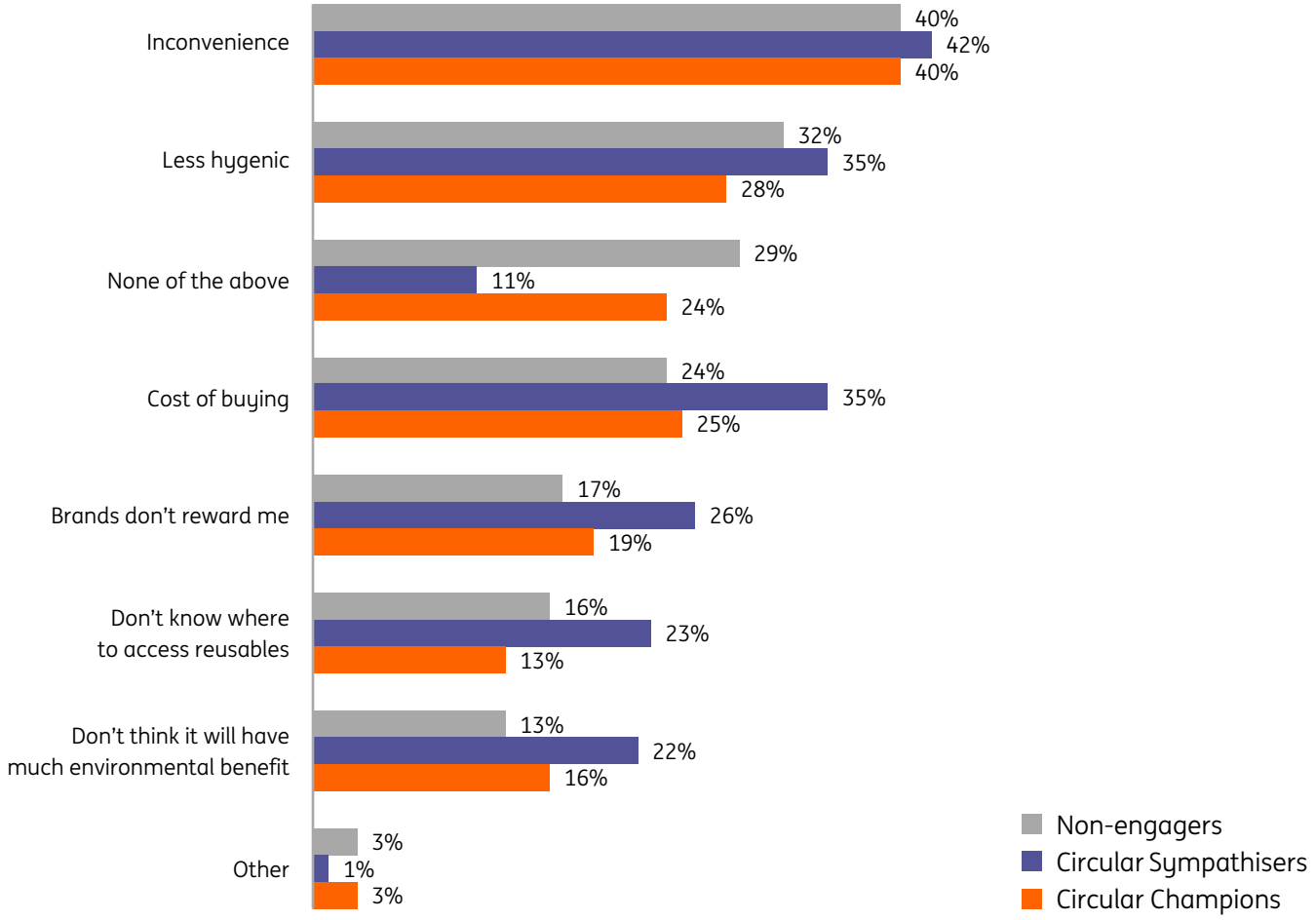
Unilever is just one company now investing in more innovative approaches that focus on refills and reusable packaging; nevertheless, the movement requires greater consumer buy-in. Among consumers in our survey, there is least buy-in for perhaps the most innovative packaging approach, whereby refillable packaging containers would need to be returned to food retailers for reuse.

Meanwhile, the biggest obstacle to greater adoption of taking reusable containers to stores, such as reusable coffee cups or food carriers, is that it currently remains an inconvenient option for consumers.

Figure 21: Appetite for packaging innovation models

	Non-engagers	Circular Sympathisers	Circular Champions
Paying more attention to food packaging waste created by my consumption	38%	71%	84% ★
Would pay a deposit on purchase that is refunded when packaging is returned	30%	45%	63% ★
Comfortable paying higher food prices if it means all packaging is made 100% recyclable	9%	33% ★	32%
Comfortable with food having less packaging but a reduced shelf-life	23%	41%	50% ★
Comfortable with refillable packaging schemes e.g. Terracycle	19%	41%	46% ★

Figure 22: Barriers for adopting reusables



Barriers to reusables in consumers' own words

"The few places I shop at don't offer the option to use recyclable containers."
Circular Champion, US, Female, 18–24 yrs

"Most businesses here won't allow this."
Circular Champion, US, Male, 55–64 yrs

"Some places don't allow this, and it's inconvenient to wash containers outside after use."
Circular Sympathiser, Singapore, Female, 35–44 yrs

"The constant washing of containers is too much effort."
Circular Sympathiser, US, Female, 25–34 yrs

"The use of reusable containers is generally not supported by the large supermarket chains. Secondly, the ability to buy loose, unpackaged food is not widely available to consumers today."
Non-engager, Australia, Female, 55–64 yrs

"You still have to pay the same. Why charge the same if we're saving them money? All businesses should give a discount if you bring your own container or cup."
Non-engager, Australia, Female, 25–34 yrs

"You still have to use water, soap, electricity, and gas to clean these 'reusable' containers – it still has impact on the environment."
Non-engager, US, Female, 65–74 yrs

"Our local government does not support recycling."
Non-engager, US, Male, 65–74 yrs

"I shop twice a month; carrying empty containers would be horrible."
Non-engager, US, Male, 65–74 yrs

Appetite for local produce

Another important facet of the circular food systems that companies are looking at is the localization of food production, supply, and distribution.

As one example of this, companies such as Danone, Mizkan, Nestlé, Novamont, Veolia, and Yara are all participating in the EMF-led Food Initiative, which is exploring how circular food systems can be achieved at scale within three cities: London, New York, and São Paulo.

Our survey results suggest that consumers across the board would be motivated to opt for local produce because of superior freshness and quality. Non-engagers and Circular Sympathisers would also need to see locally produced options reach similar price points to mass-produced food, while Circular Champions will be strongly motivated to choose local produce because of its environmental benefits.

Figure 23: Buying local produce

Non-engagers	Circular Sympathisers	Circular Champions
What would motivate you to buy food which is locally produced?		
1. Quality/Freshness (61%) 2. Reasonably priced vs. mass-produced food (53%) 3. Convenient to buy (45%) 4. Support local businesses (46%)	1. Quality/Freshness (63%) 2. Convenient to buy (45%) 3. Reasonably priced vs. mass-produced food (45%) 4. Support local businesses (39%)	1. Quality/Freshness (76%) 2. Support local businesses (54%) 3. Better for the environment(49%) 4. Reasonably priced vs. mass-produced food (47%)

"When it reaches -14ºC in Montreal and you give customers a tomato that was harvested the day before, that tastes like summer. They just light up! They understand it's fundamentally different to the tomato that's traveled for three weeks and was harvested green in Mexico. We don't really have to sell all that much – the taste takes care of the story."

Thibault Sorret
Chief of Staff
Lufa Farms

Industry implications: circular priorities for food companies

Our research shows that consumers are subjecting food brands to greater scrutiny over their environmental practices, and becoming more engaged on the impact of how their food is produced, packaged, and distributed. There are major opportunities for food brands to profit from these shifting consumer demands. They can differentiate their sustainability stories and gain an edge on competitors by closing packaging loops and reducing supply-chain inefficiencies.

To facilitate this change and capitalise on the opportunities, food brands need to accelerate their efforts in:

- **Communicating the circular story to customers:** Consumers are increasingly factoring environmental impact into their food purchases and are demanding to know more about how their food gets from farm to fork. Greater transparency on labelling is only one of the changes that they are demanding. Brands need to ensure consumers can access online all the information they need to understand the journey their food has taken to get to their plates. Moreover, food brands must open their doors to those consumer groups that want to spend time reconnecting with their food, with the view that they could become evangelists for the brand.
- **Making circular a 'convenience economy':** When buying food, consumers will always look for convenience, quality, and price. For Non-engagers and Circular Sympathisers, locally produced options must be as easily accessible as mass-produced food if it is to become their default option, while a perceived lack of convenience is a major barrier to all consumer groups' adopting reusables. Just as large food retailers have thrived in a linear economy by becoming the kings of convenience, food brands must – through a combination of redesigning the customer experience, creating new infrastructure, and investing in new technology – ensure that circular models achieve similar levels of accessibility for all consumers.
- **Bridging the industry's data gap:** Owing to its structure, the food and agriculture sector struggles with a lack of access to quantitative data across the value chain. This situation must be resolved if brands are to provide customers with the traceability they are now demanding, as well as to better control waste and material flows. Partnering with – or even making venture investments in – innovative technology start-ups that are tackling this challenge should help to accelerate the path to better data availability, from producers through to retailers.

Case study

Thibault Sorret
Chief of Staff, Lufa Farms

Catering for changing appetites: Lufa Farms

Lufa Farms created the world's first commercial rooftop greenhouse in Montreal, Quebec in 2011, going on to build two more in 2013 and 2017. Here, Lufa Farms' Chief of Staff, Thibault Sorret, explains how the company is working to meet increasing consumer demand for information about how their food is produced, and rising to meet expectations on quality, convenience, and price.

On consumers' changing relationship with their food...

"One of the things we've learned is that, today, people really want to know where their food is from. It definitely seems as though there's a growing movement of people wanting to reconnect with their food. There's a shift towards greater environmental awareness, towards the importance of fresh, local, responsible food, which has played towards a consumer mentality that looks at a system like Lufa Farms' and says, okay, this makes a lot of sense."

On engaging and educating consumers...

"That's something we've tried to excel at over the last few years. We visit all of our suppliers, so that all of our products will have supplier descriptions and photos. We share the story with the consumer: when people buy a tomato, it's not a tomato from X country, it's a tomato from this particular farm, with the story of the farmers who grew it. The other thing we're doing to deepen engagement with people is literally opening our doors. We have monthly open houses where people can come and visit our greenhouses for free. We think it's really important to show people how we're growing food and how this works in a city. This also helps overcome challenges that we face in terms of potential misconceptions."

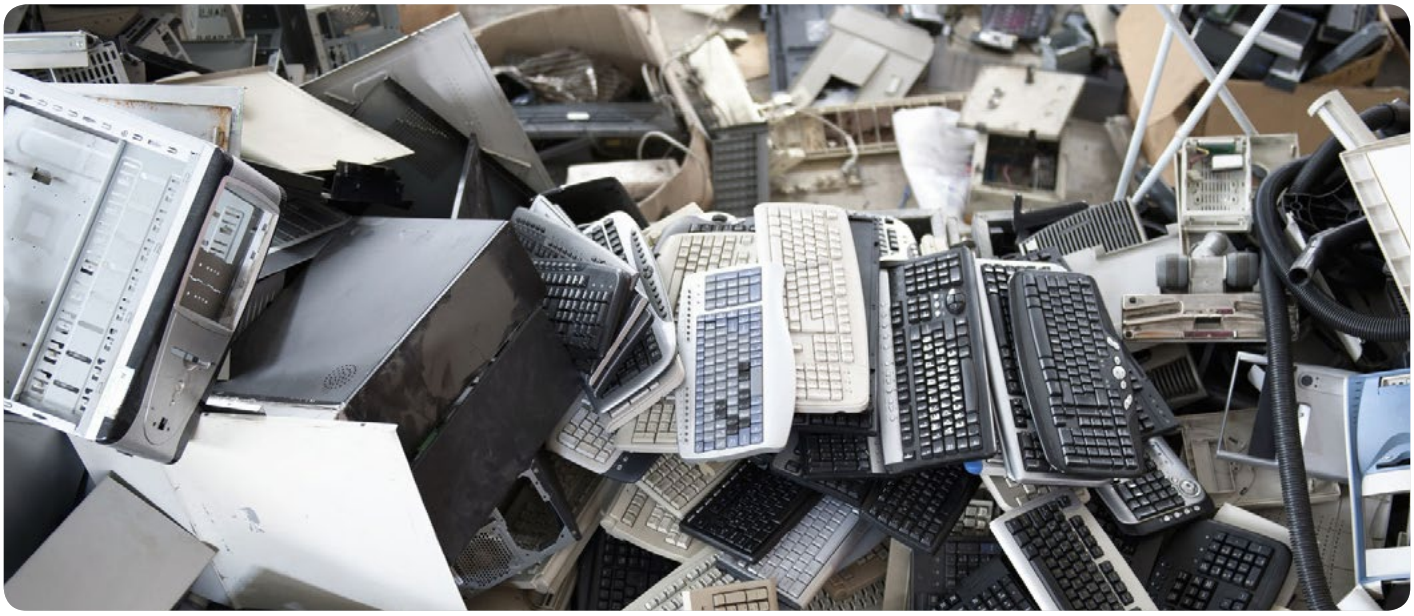
On delivering convenience...

"We're very vertically integrated: we're producing, selling, distributing, and delivering food. We've created an online marketplace where our customers can buy our produce, plus produce from 250 partner farms who grow things we can't. It really is a farmer's market, so anything you'd need to get at the grocery store, you can get a fresher, local, responsible version of it on the online marketplace. We have a network of pick-up points all around Quebec [that] consumers can use, and a fleet of electric cars for any home deliveries."

On delivering affordability...

"On price, we're on par for anything that's organic or pesticide-free for all of our products. But the ultimate goal of Lufa Farms is changing the current model to a better food model, and we think, over the long term, it's possible to get the prices to match conventional produce by achieving great enough scale. One of the biggest reasons is waste. When you look at a system that's currently wasting so much of what it's producing, long term, there is a possibility with a model like ours – where there's almost no waste – to be more cost-effective. Another is economies of scale. Most of the fixed costs associated with building a rooftop farm go down the bigger the rooftop is, so, the more farms we can build, and the bigger they are, the more we can drop our

Driving circular consumption in electronics



Electronics sector: circular economy round-up

Key policy developments

- **Europe:** The EU has had legislation in place restricting the use of certain hazardous substances in electrical and electronic equipment (EEE) since 2011. This was amended in 2017 to boost the circular economy by removing bans on secondary market operations for EEE that was previously out of scope.[17] The EU also introduced the Waste Electrical and Electronic Equipment (WEEE) Directive in 2002, which it updated in 2012, to reduce the amount of e-waste being incinerated or sent to landfill by recovery, reuse and recycling of products and components.[18]
- **North America:** 25 US states have introduced e-waste laws;[19] 23 have incorporated some form of extended producer responsibility into their laws. Some states have not enacted EPR laws because of a lack of recycling infrastructure and funds for proper e-waste disposal.[20]
- **APAC:** The Indian government amended its e-waste laws in 2018, introducing take-back targets for producers, which rise from 10 percent of products sold in 2017-18 to 70 percent from 2023 onward.[21] Japan's Home Appliance Recycling Law (2001) asks consumers to pay a collection and transportation fee when disposing of end-of-life devices, with retailers obliged to collect them, and manufacturers obliged to recycle them.

Industry targets and commitments

- Apple, HP, and Philips have all signed up to the World Economic Forum-led Platform for Accelerating the Circular Economy (PACE), which began an initiative focused on dematerializing the electronics industry in 2018.[22]
- Apple has now pledged to move towards 100 percent use of recycled materials to make its iPhones, Macbooks, and other electronics products, though it is yet to commit to a target date for achieving this.[23]

17 Directive 2011/65/EU of the European Parliament and of the Council
18 Directive 2012/19/EU of the European Parliament and of the Council
19 Ten lessons learned from state e-waste laws, Electronics Takeback Coalition
20 Product Stewardship Institute, May 2016
21 E-waste management in India: Issues and strategies, Vikalpa: The Journal for Decision Makers, September 2019
22 A New Circular Vision for Electronics, PACE and WEF, January 2019
23 Apple announces commitment to 100 percent recycled materials, major step for IT sector, Greenpeace, April 2017

Figure 24: E-waste generation and collection per continent

(Source: E-monitor 2017)

Indicator	Africa	Americas	Asia	Europe	Oceania
Countries in region	53	35	49	40	13
Population in region (millions)	1,174	977	4,364	738	39
WG (kg/inh)	1.9	11.6	4.2	16.6	17.3
Indication WG (Mt)	2.2	11.3	18.2	12.3	0.7
Documented to be collected and recycled (Mt)	0.004	1.9	2.7	4.3	0.04
Collection rate (in region)	0%	17%	15%	35%	6%

Current circular adoption in electronics

Gauging global sentiment

Buying decisions: 55 percent of consumers say they would be less willing to buy an electronic device if it was clear the company producing it wasn't environmentally responsible.

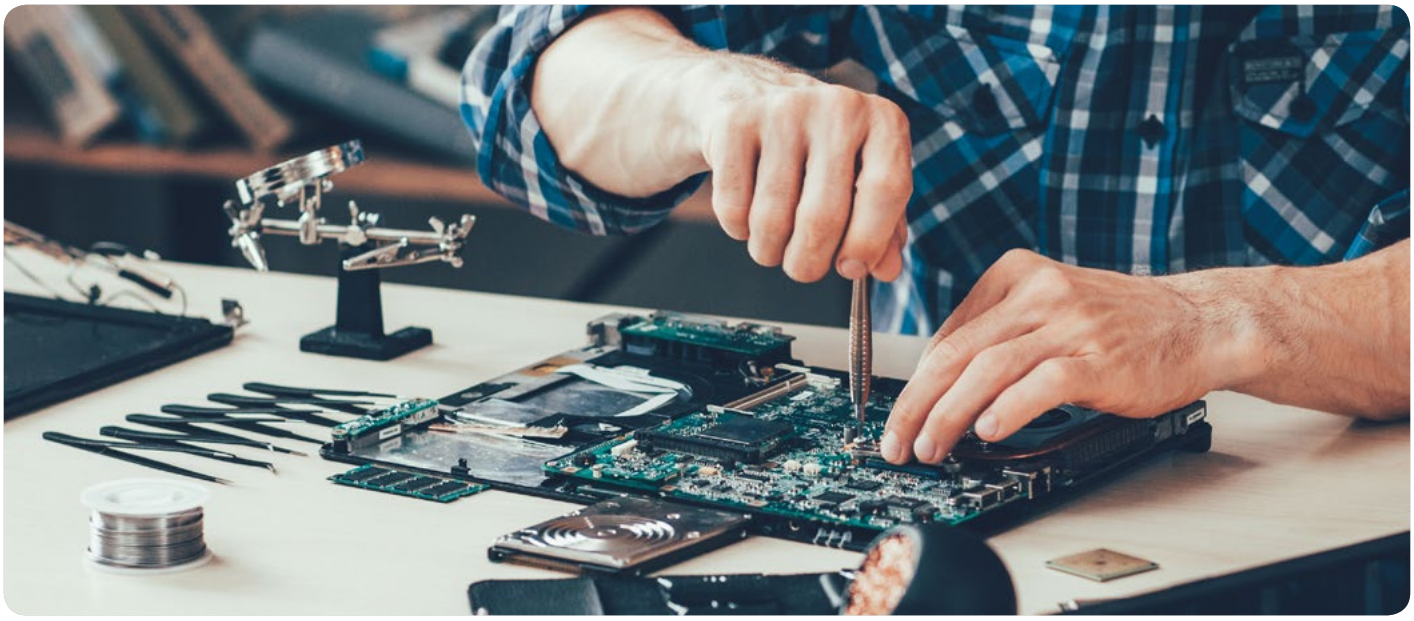
Motivations: 70 percent of consumers would be more likely to repair their electronic devices if companies offered a low-cost repair service.

Behaviors: 76 percent of consumers do not currently rent or lease any of their electronic devices.

Emerging models: 37 percent of consumers under 34 years old are likely to use sharing platforms for electronic devices, as a buyer or a seller.

Figure 25: Food: How circular is each persona?

	Non-engagers	Circular Sympathisers	Circular Champions
Recycling	• 36% becoming more concerned about their e-waste	• 71% becoming more concerned about their e-waste	• 81% becoming more concerned about their e-waste
Buying decisions	• 9% would be much more likely to buy a device if it was 100% recyclable • 19% would be much more likely to buy a device if it was easily repairable at home • 34% would be much more likely to buy device if the manufacturer offered a free repair service	• 28% would be much more likely to buy a device if it was 100% recyclable • 29% would be much more likely to buy a device if it was easily repairable at home • 38% would be much more likely to buy device if the manufacturer offered a free repair service	• 43% would be much more likely to buy a device if it was 100% recyclable • 43% would be much more likely to buy a device if it was easily repairable at home • 60% would be much more likely to buy device if the manufacturer offered a free repair service
Research	• 11% take time to research the environmental behaviours of electronics companies they buy from	• 12% take time to research the environmental behaviours of electronics companies they buy from	• 30% take time to research the environmental behaviours of electronics companies they buy from



The vast majority of Circular Champions and Circular Sympathisers have e-waste on their radar; they are increasingly concerned about how their device consumption is impacting the environment. Global E-waste Monitor's latest report found that, while the world had generated 44.7m metric tonnes of e-waste by 2016, only 20 percent was recycled through the appropriate channels.

Of Circular Champions, 43 percent say they would be significantly more likely to choose an electronic product if they were assured that its components were fully recyclable; 30 percent of this consumer group are already undertaking research into how electronics companies perform in terms of environmental consciousness before they purchase from them.

Far fewer Non-engagers and Circular Sympathisers are currently going so far as to investigate these issues before buying devices. However, more than half of consumers globally would be less likely to buy from an electronics company if it became clear to them that it was behaving irresponsibly in relation to the environment.

The direction of consumer travel is clear. The rise in e-waste legislation, which now covers 66 percent of the world's population, is obliging the industry to accelerate the transformation of its materials use. Even more compelling, however, is the huge opportunity cost to electronics companies that fail to close the materials loop.

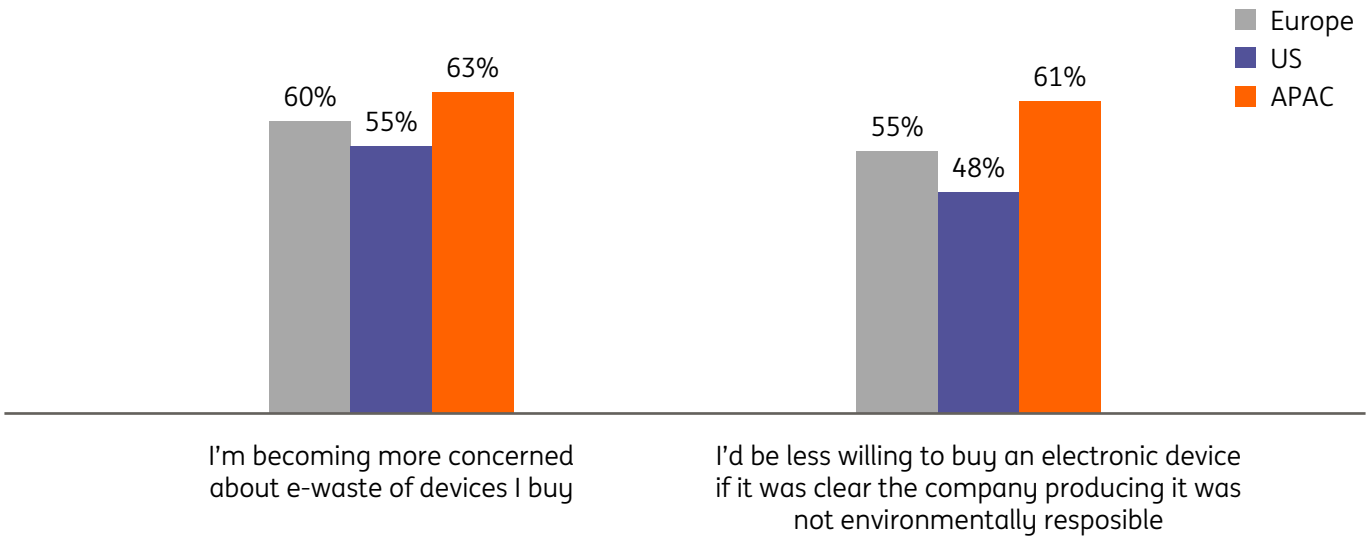
From harvesting precious metals from old smartphones to salvaging rare magnets from discarded laptops, the material value of e-waste is too great for companies to ignore; the World Economic Forum has estimated it to be $62.5bn globally, three times the value of the annual output of the world's silver mines.

The gains do not stop there. Australian materials recovery company, Close the Loop, is delivering business intelligence to its clients as a benefit of their efforts to control material flows. In its work with printer companies, for instance, it records data on the ink cartridges it collects from businesses, enabling it to provide insights to clients about potential missed sales opportunities, as dictated by the frequency and amount of cartridges returned for the competing brands.

"We record data on all of the cartridges that come through our system, so you start to build insights for clients to understand if they've missed out on sales opportunities, or if their own customer has breached a contract. We're also updating our portal so we can tell businesses the impact of their recycling, such as 'you've now recycled X number of cartridges and this can help create so many kilometers of road'."

Marc Lichtenstein
Joint CEO
Close the Loop

Figure 26: A regional view



Appetite for emerging circular models

Attitudes towards repairing devices

For many consumers, the repair of electronic devices is not common practice. In our survey, we found that 55 percent of Circular Sympathisers are not even aware of where they could access device-repair services.

That said, the majority of respondents would be motivated to engage in device repair if electronics brands offered low-cost repair services. Some countries have implemented legislation to reduce the cost barrier for repair, with Sweden introducing reduced VAT for consumers that repair electronic and electrical equipment.

The benefits to brands of driving consumer adoption of repair services are multiple: such services can help bring customers back to their stores, encourage loyalty, and also build their inventory of pre-owned devices to help fuel activity in the expanding resale market.

"Consumers are always seeking the latest and greatest electronic gadgets, such as smartphones, but many are now struggling with the price points on new releases. The result is that both the industry and consumers increasingly realise there is value in the old models, and we're seeing huge growth in secondary markets for refurbished – as good as new – electronic devices."

Monika Collée-Nussbaum
Global Director Communications and CSR
Teleplan International

Figure 27: Electronics: Motivating consumer groups to repair devices

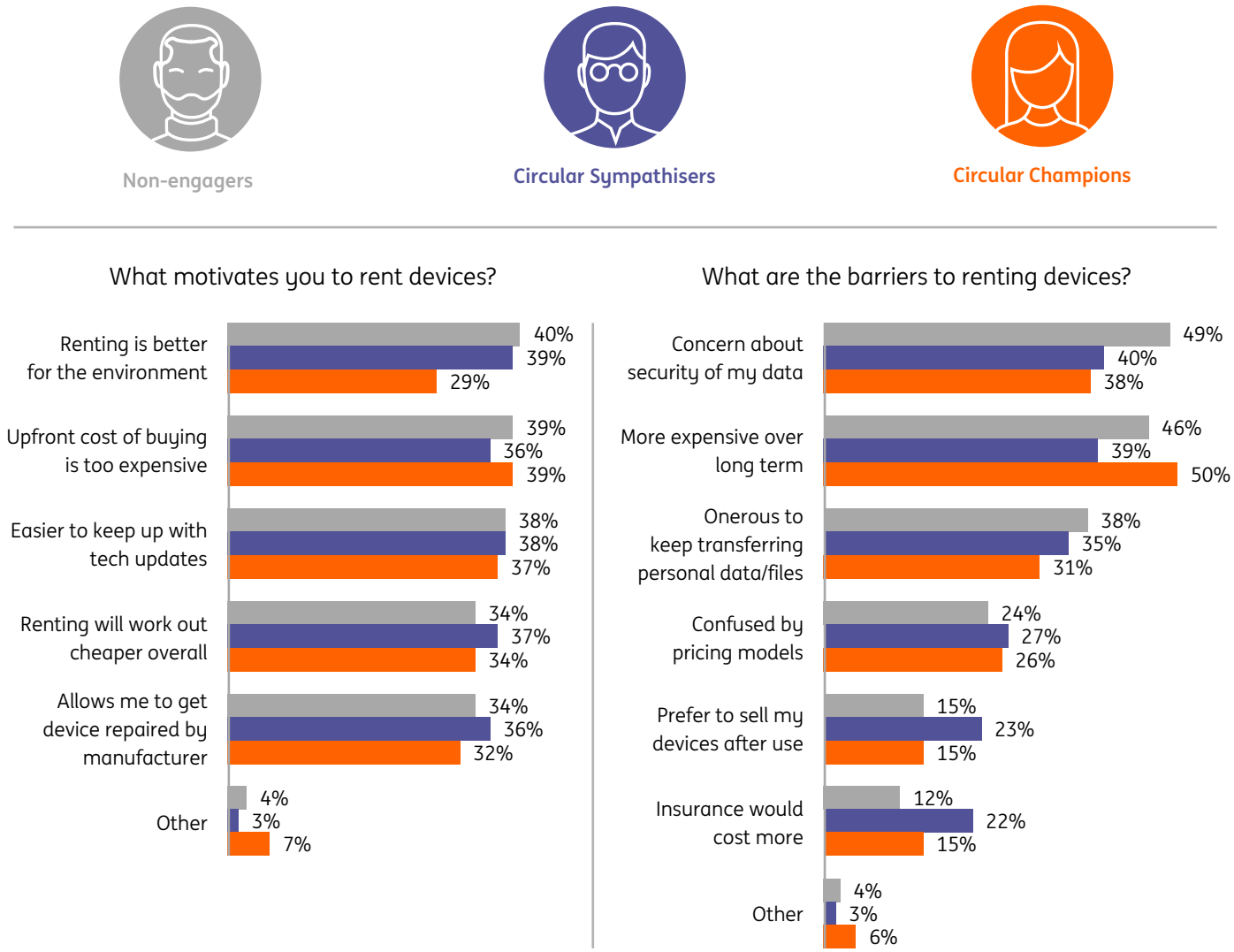
	Non-engagers	Circular Sympathisers	Circular Champions
Brands offering low-cost repair service will motivate me	58%	74%	84% ★
Environmental benefits will motivate me	35%	67%	77% ★
Cost is a barrier for me	41%	59% ★	38%
Don't know where I can access repair services	34%	55% ★	37%
Time and effort is a barrier for me	29%	54% ★	26%

Outlook for PaaS models

Product-as-a-Service (PaaS) models are still at a nascent stage in the electronics industry. Among our consumer groups, more than four-fifths of Circular Champions and Non-engagers, and 58 percent of Circular Sympathisers, do not rent any electronic devices or household appliances currently.

Among all consumer groups, data security and perceived higher cost over the long term are the most significant barriers to renting electronic devices. Both Circular Champions and Circular Sympathisers would be more attracted to such models based on the environmental benefits, while Non-engagers could be enticed by the potential for upfront cost savings and the ease of staying up-to-date with technology advances that rental models can offer.

Figure 28: Electronics: Will consumer groups embrace rental models?



Outlook for device-sharing models

Product sharing is another nascent area for the electronics industry when it comes to introducing circular models.

Among our respondents, awareness of product-sharing platforms is most prevalent among Circular Sympathisers – the youngest, most urban group in our survey – but more limited among Circular Champions and Non-engagers. There is also stronger appetite among Circular Sympathisers to engage in device-sharing.

Product-sharing models are more likely to thrive in densely populated areas with a digitally active community, which is something electronics companies will need to evaluate as they explore the potential of such models in different regions.

Figure 29: Have you ever heard of a "sharing platform for electronic devices/household appliances"?

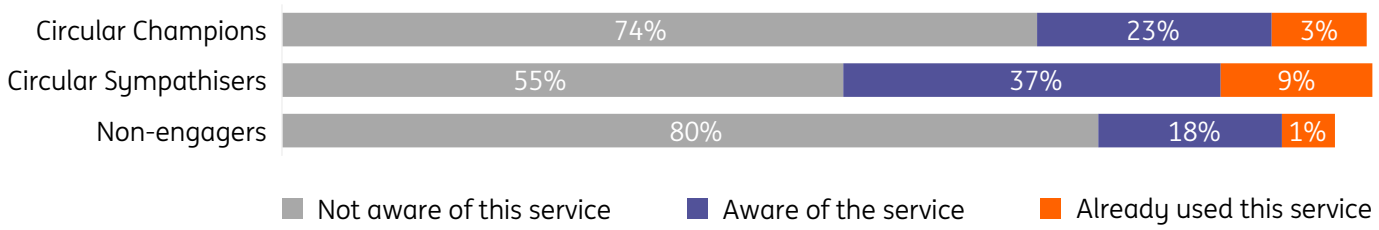
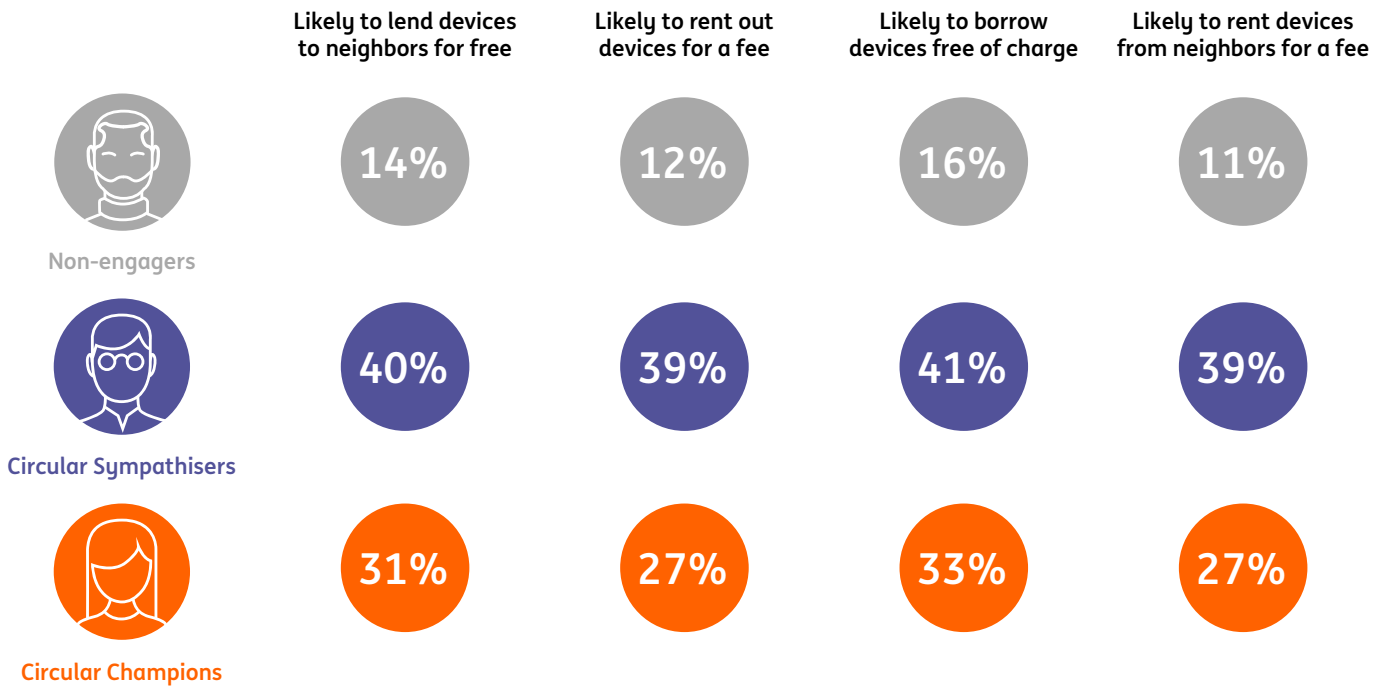


Figure 30: Electronics: Will consumer groups embrace device-sharing models?



Industry implications: circular priorities for electronics companies

- **Optimizing products for reuse and resale:** electronics companies have a huge opportunity to unlock fast-growing markets for pre-owned devices. Products need to be designed for longevity rather than obsolescence; standards must be set to assure customers of the future performance levels of used devices; and stringent data-erasure practices must be enforced to allay consumers' cybersecurity concerns.
- **Extracting commercial insight from closing the materials loop:** by investing in physical infrastructure for material collection, electronic companies can drive higher rates of consumer adoption. As well as the huge value to be harvested from returned materials, data captured in relation to customers' use of their products – and their competitors' products – will be a valuable source of commercial insight.
- **Putting new financing models in place:** as they consider launching PaaS and product-sharing models, as well as pre-owned business units, electronics companies will need to redesign their cashflow management systems and financing structures.

Case study

Daan Weddepohl

CEO & Founder, Peerby

Maximizing opportunities from product sharing: Peerby

Daan Weddepohl founded Amsterdam-based local sharing platform, Peerby, in 2012 to allow consumers to borrow and rent appliances and devices from others in their neighborhoods. The platform has since expanded its reach across Europe and North America. Here, Daan outlines the opportunities on offer for electronics and home appliance companies to optimize their products for sharing models.

On consumer adoption of device-sharing...

"For consumers, convenience and reliability are really key and a lot of that depends on the liquidity of the marketplace. If you compare our platform to sites that offer classified ads, I think there's a different dynamic, in that people using Peerby often need something relatively quickly, while, with the classified-ad marketplace, consumers are willing to take more time over transactions. Broadly speaking, we see more uptake in cities than in villages – the density of a city, and the fact that it's easier to create a hyper-local marketplace there is probably an advantage. We're also developing solutions to notify people when there is a clear demand for certain items, which will enable users to achieve immediate value and boosts engagement."

On unlocking higher margins from products...

"When it comes to maximising the opportunities from product sharing, companies need to think about designing for longevity. We've spoken to manufacturers about facilitating a sharing model for their products that would create a pay-per-use system, whereby the manufacturer also gets paid based on for how long the item works. Based on the current lifetime of their products, we could probably earn them 150 percent of the retail price using such a model. But with products that are designed for longevity, that could probably be much, much more, so it's key to recognise that, in a product-sharing model, designing your products for longevity and sharing, rather than obsolescence, will actually unlock higher margins."

On the evolution of product-sharing ecosystems

"In the partnership we're exploring with an appliance manufacturer and a distributor, we're looking at different options to finance new products and get them onto the sharing network. One option is that the manufacturer might finance the product and earn back the money, or the distributors might store items for a manufacturer and provide frequent rentals to their surrounding populations. Or it could be us, the platform, who finances the product. Right now, we're still relatively small, but I can imagine a position where the sharing platform reaches the size of influence of say, a Netflix, and starts working with manufacturers at the development stage to produce custom-made products for the network."

Conclusion — A convergence of circular journeys

Both companies and consumers are accelerating their adoption of sustainable thinking and practices.

Consumers can embrace the opportunities of circular models

For consumers, there is an increasing willingness to accept personal responsibility in the drive to combat environmental challenges, as well as a realization that circular product and service models can create a range of non-environmental benefits for them.

Our study shows that some consumer groups are more driven by sustainability issues and are prepared to leave consumer brands because of this issue if necessary.

Meanwhile, for those consumers that don't necessarily view themselves as Circular Champions, there are other attractive benefits. The expansion of pre-owned markets, for instance, can deliver greater affordability of expensive products which have been refurbished, while sharing and subscription models will reduce the upfront cost of accessing such products too. Consumers can also increase the pressure on companies to deliver something they have long called for — products that are designed and built to last.
In the food industry, progress on making local production more efficient, such as through vertical farming, means that consumers will be able to access fresher, better quality food at comparable prices to mass-produced food in the future.

These are all advantages of circular economy models which have widespread appeal, in addition to the environmental imperative we face as a society. Consumers will need to be armed with better information from brands if they are to push for these changes, and we can expect them to continue ramping up the pressure on businesses over the next few years in this regard.

Companies can harness consumer momentum to drive commercial value

For businesses, there is a growing recognition of not only the sustainability imperative, but also the commercial benefits of changing their models.

First-movers are already using their environmental credentials as a key selling point to consumer groups that are factoring this into their buying decisions. Work will need to continue to better communicate these credentials to consumers, which will require companies to capture more data from across their supply chains and provide greater transparency — but the payoffs for doing so will be several-fold.

Further, those brands that have taken action to close material loops and adapt their supply chains are now at the forefront of growing new markets, such as those for pre-owned products and in subscription-based models, which are rapidly gaining traction among consumers. And with respect to other new models which remain at a nascent stage, such as product sharing, businesses are paying more attention as they are alerted to the prospect of boosting their product margins if they can switch more customers onto these.

Now, as both consumers and companies move further along the path towards a circular economy, we will need to see greater convergence between them. For the full benefits of a circular economy to be realised, consumers will need a better understanding of the transition that they are supporting and how companies' new models can deliver the best outcomes for them. And we will need to see deeper brand-consumer relationships than ever before — the success of the circular economy depends on it.

Survey

All survey work undertaken by Longitude, a Financial Times company.

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