The Tipping Point: Building trust in the circular economy

Food sector

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01 - Introduction

A circular approach is an opportunity to rethink how we produce, process, distribute, and consume food. This matters because with one-third of all food produced globally currently going to waste, and much of it ending up in landfills, the environmental, economic and social costs of the linear economy are significant.

At its core, a circular food system aims to design out waste, keep resources in use for as long as possible, and regenerate natural systems. This could mean repurposing surplus food, turning by-products into new ingredients, or using organic waste to create compost or bioenergy. It also involves redesigning packaging for reuse or recyclability or shortening supply chains to reduce spoilage.

Moving toward circularity isn’t without challenges. Fragmented supply chains, limited infrastructure for waste collection and processing, and consumer awareness remain major hurdles. Packaging is another significant complication - especially in balancing food safety, shelf life, and sustainability. Many materials used for this are complex and not easily recyclable, and compostable alternatives are not always supported by existing waste systems.

Nevertheless, we are seeing encouraging progress – start-ups innovating in upcycled foods, retailers offering aesthetically mishappen produce, and policy shifts supporting food recovery. Some brands are also piloting reusable packaging models, using mono-material designs to improve recyclability and using seaweed-based packaging

Above all, I believe building trust by being transparent, prioritizing independent verification, collaborating across the value chain, and really engaging consumers is key. If we tackle these challenges together and collaborate across the whole value chain, I truly believe we can make a circular food system the new normal, not just the exception.

Titi Susanti, BSI Global Director - Consumer, Retail & Food

02 - Trust in the circular economy

Our current dominant economic model operates on a linear trajectory: extract resources from the earth, manufacture products, use them – often briefly – and then discard them as waste.

This linear ‘take-make-waste’ system, fuelled by the assumption of abundant resources and limitless disposal capacity, is increasingly revealing its inherent flaws. According to the UNEP, global material consumption has more than tripled since 1970, and continues to rise.

At the same time, global waste generation is also on an upward trajectory. The World Bank estimates that global municipal solid waste generation will increase by 70% by 2050 if trends continue.

According to estimates in the 2024 Circularity Gap Report, the global economy is only 8.6% circular; a slight decrease from 9.1% in 2018. The unsustainability of this linear path is no longer a distant concern – it is a present reality demanding a fundamental shift in thinking.

86% globally think circularity should be a priority for business and governments in addressing environmental challenges

The circular economy (CE) offers a compelling and necessary alternative. It represents a systemic shift towards an economy that is intentionally designed to be restorative and regenerative. While the economic and environmental logic of the CE is compelling, its successful widespread adoption hinges on a less tangible but equally critical factor: trust.

A transition to circular models requires significant shifts – not only consumer behavioural change, but also expectations from all participants in the economy. Business must embrace new operational models, invest in reverse logistics, redesign products, and often collaborate more deeply with partners across the value chain. Consumers, in turn, are asked to engage differently – accepting refurbished goods, participating actively in take-back or return schemes, opting for product-as-a-service models over ownership, and potentially altering long-standing consumption habits.

Trust in the CE is the result of deliberate, consistent actions and verified commitments. Building trust requires acknowledging and addressing several barriers that currently impede progress. However, these challenges also present opportunities for businesses willing to lead the way. By building trust in the CE for businesses and consumers, we can accelerate progress towards a tipping point whereby a circular approach becomes the go-to.

56% of people said a lack of trust in quality might prevent them from buying or using circular products

03 - Circularity in the food sector

The global food system is a significant contributor to environmental pressures, from greenhouse gas emissions and biodiversity loss to freshwater depletion and soil degradation. Estimates suggest food production is responsible for over a third of global emissions, driven by agricultural practices, land use change and energy-intensive supply chains. Yet, despite these impacts, inefficiencies remain entrenched: around one-third of all food produced globally is either lost or wasted, with considerable social, economic and environmental costs.

Packaging waste amplifies sustainability issues in the sector. While essential for preserving food and supporting logistics, most packaging is designed for single use and is rarely recovered in practice. Recycling rates for food packaging – particularly flexible plastic and composite materials – remain low and inconsistent across regions. In many cases, virgin materials are still preferred due to cost and performance, undermining efforts to close material loops. Despite growing consumer concern, global plastic packaging recycling rates remain low at around 9%.

Circularity in the food sector

Short product lifespans, fragmented supply chains and a reliance on just-in-time logistics make the sector particularly prone to waste. Mismatches between supply and demand, combined with stringent cosmetic standards and misinterpreted date labelling, often result in edible food being discarded at various stages of the chain. The system also lacks coherence on key enablers of circularity, such as harmonized labelling, collection infrastructure, or policy incentives for recovery and reuse.

Consumer expectations around convenience and affordability have historically shaped linear models of production and consumption. Business models tend to prioritise volume and availability over resource efficiency, while infrastructure for food recovery or compostable packaging remains patchy, especially in urban settings. As a result, circular interventions are still the exception, rather than the rule.

54% of people said evidence of quality and lower costs were the most important considerations when buying circular food products

Barriers

Common barriers to circularity in the food sector include:

- **Infrastructure gaps**: Limited infrastructure for food waste separation, anaerobic digestion, or industrial composting restricts the viability of circular food systems, especially in urban areas.
- **Economic misalignment**: The true cost of food waste is often externalized. Circular models (e.g. refill systems, compostable packaging) can be seen as more expensive or harder to scale.
- **Consumer behaviour**: High reliance on convenience, limited knowledge about food preservation, and low awareness of product end-of-life, impact the uptake of circular food practices.
- **Fragmented value chain**: Food systems are highly fragmented, from primary production of raw materials through multiple processing steps. This causes challenges with the creation of supply chain collaborations to develop closed-loop strategies.

Signs of momentum

Despite the barriers, there is the growing readiness for a tipping point towards circularity in food:

- **Policy and legislation:** The EU Farm to Fork Strategy and Extended Producer Responsibility frameworks are driving reform, incentivizing waste prevention, sustainable packaging, and recovery of surplus food. France, for example, has banned supermarkets from discarding edible food.
- **Retailer commitments:** Major retailers like Carrefour have launched initiatives to halve food waste in their supply chains and stores. Tesco's 'Perfectly Imperfect' range uses cosmetically non-standard produce, reducing farm-level waste.
- **Circular Start-Ups and Innovations:** Startups such as Too Good To Go, OLIO, and Karma are creating digital marketplaces to redistribute surplus food to consumers and charities. Companies like Apeel and Hazel Technologies extend shelf life through natural coatings, reducing spoilage.

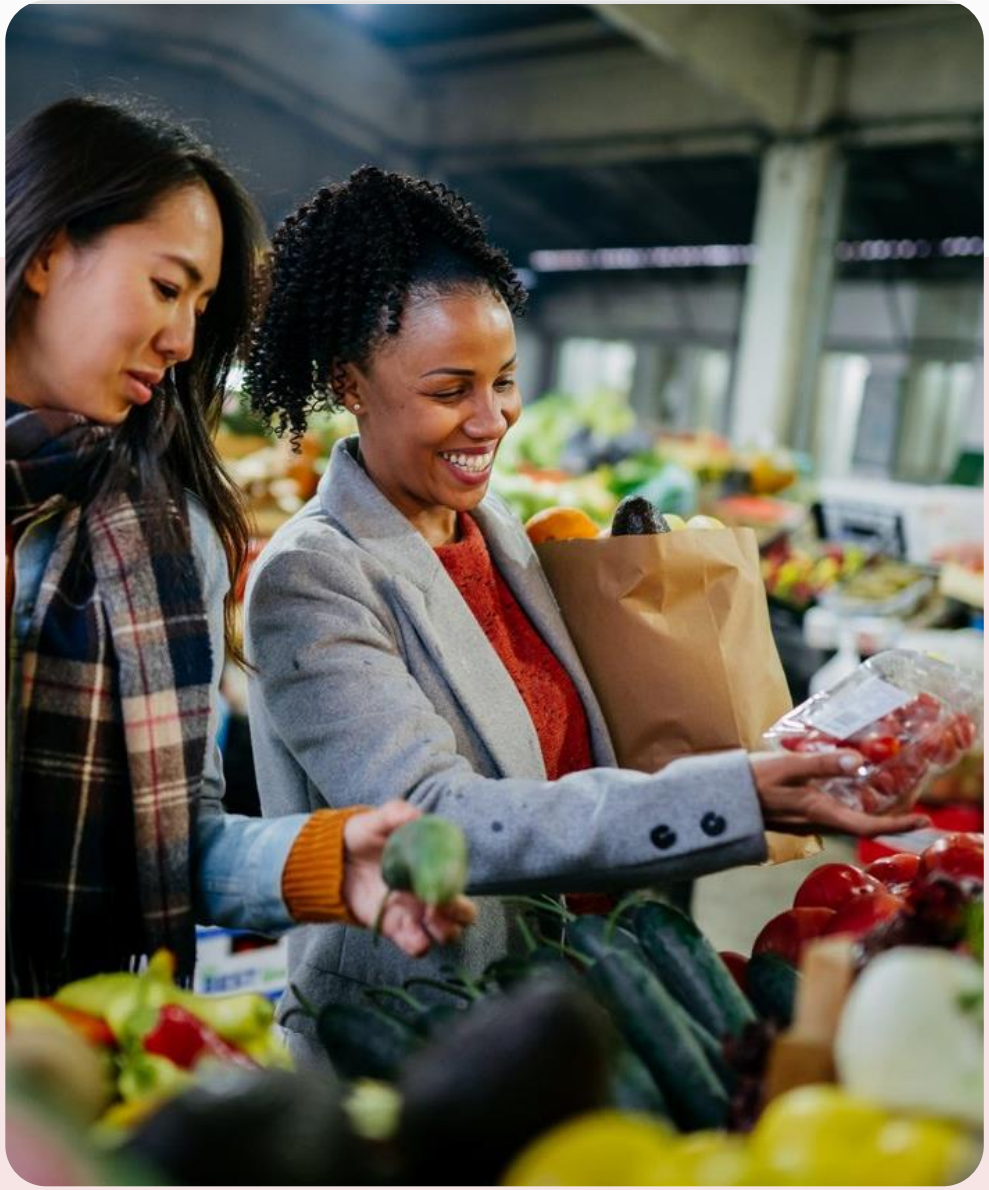
Signs of momentum

- **Packaging innovation:** Brands such as Notpla and Loop are rethinking packaging formats such as ranging from seaweed-based films to refillable containers, in order to move away from single-use plastics.
- **Regenerative food systems:** There is growing interest in regenerative agriculture and localized food networks that shorten supply chains, close nutrient loops and reduce dependency on synthetic inputs.

This suggests that a tipping point in food circularity could be reached when consumer engagement is matched by clear policy direction, enabling infrastructure, and business models that reward resource preservation over volume sales. Food is particularly sensitive to social norms, making visibility, trust, and ease of action essential to shifting behaviours at scale.

63% of people said the food sector should prioritize recycled packaging, even if this increases costs

04 - Global consumer survey findings



Our global survey* found that under half of people (43%) are familiar with the concepts of circularity and the circular economy, rising slightly to 51% for those who work within the food sector. This suggests that there is an opportunity for the sector to upskill and educate workforces on the circular economy and the opportunities it presents.

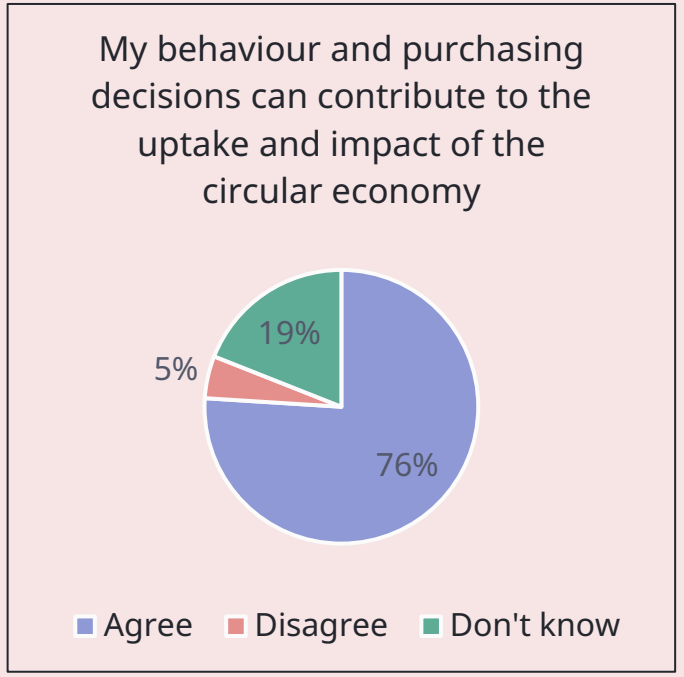
After being provided with a description of the circular economy and examples of circularity within the food sector, public attitudes towards circularity are positive with 86% saying they believe circularity should be a priority for businesses and governments in addressing environmental challenges. In addition to this, 68% of people ranked creating positive impacts for the environment as a top three driver for them personally to adopt circular behaviour.

** Burson/Focal Data survey, commissioned by BSI, 8,225 adults in eight countries between 7-11 April 2025, in the UK, US, Germany, The Netherlands, China, Japan, India and Australia*

Barriers to buying circular

76% of people globally believe their behaviours and purchasing decisions can contribute to the uptake and impact of circularity and the circular economy.

However, when asked about what influences their purchasing decisions, over half (56%) of people said a lack of trust in quality might prevent them from buying or using circular products, followed by 50% who cited a lack of trust in safety and 49% who cited a lack of trust in reliability.

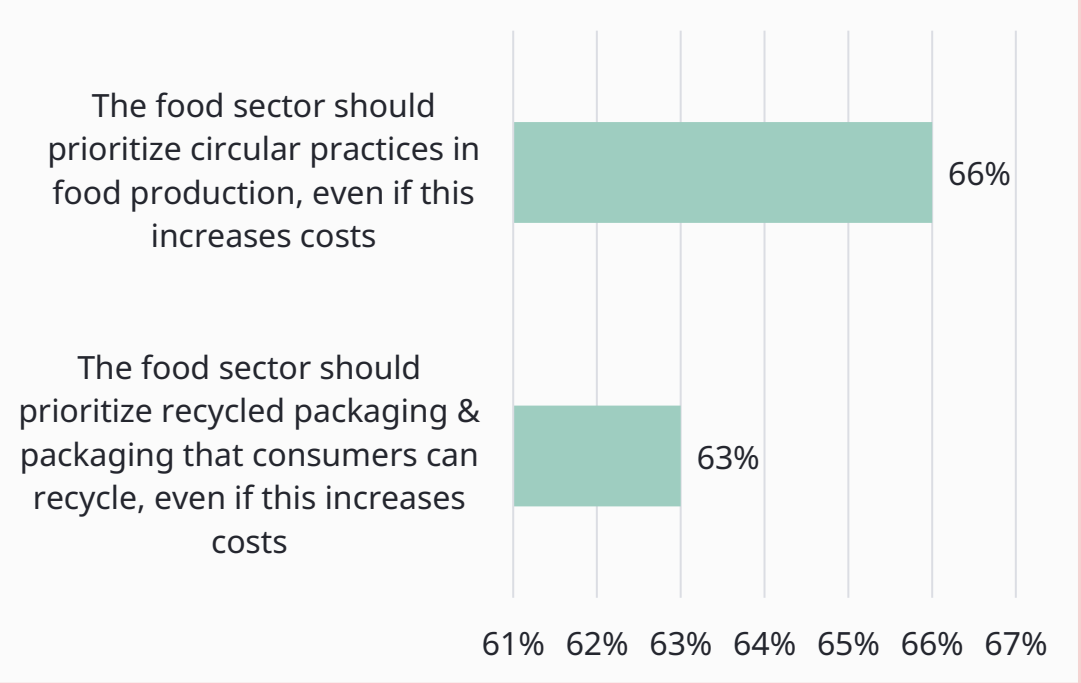


Support for circular food practices

Consumer support for circular food practices is strong, with 63% of people agreeing the food sector should prioritize using recycled packaging and packaging that consumers can then recycle, even if this increases costs.

66% of people also agree the food sector should prioritise circular practices in food production, such as the reduction of waste and uptake of composting, even if this increases cost.

Despite this, when it comes to making circular purchases only 31% of people said they would choose to buy food produce in recycled packaging over food in regular packaging, and only 25% would consider buying aesthetically imperfect or misshapen food produce.



Evidence is critical for trust

54% of people said evidence of quality, reliability and lower cost were the most important considerations for buying circular food products, followed by evidence of safety / hygiene (42%).

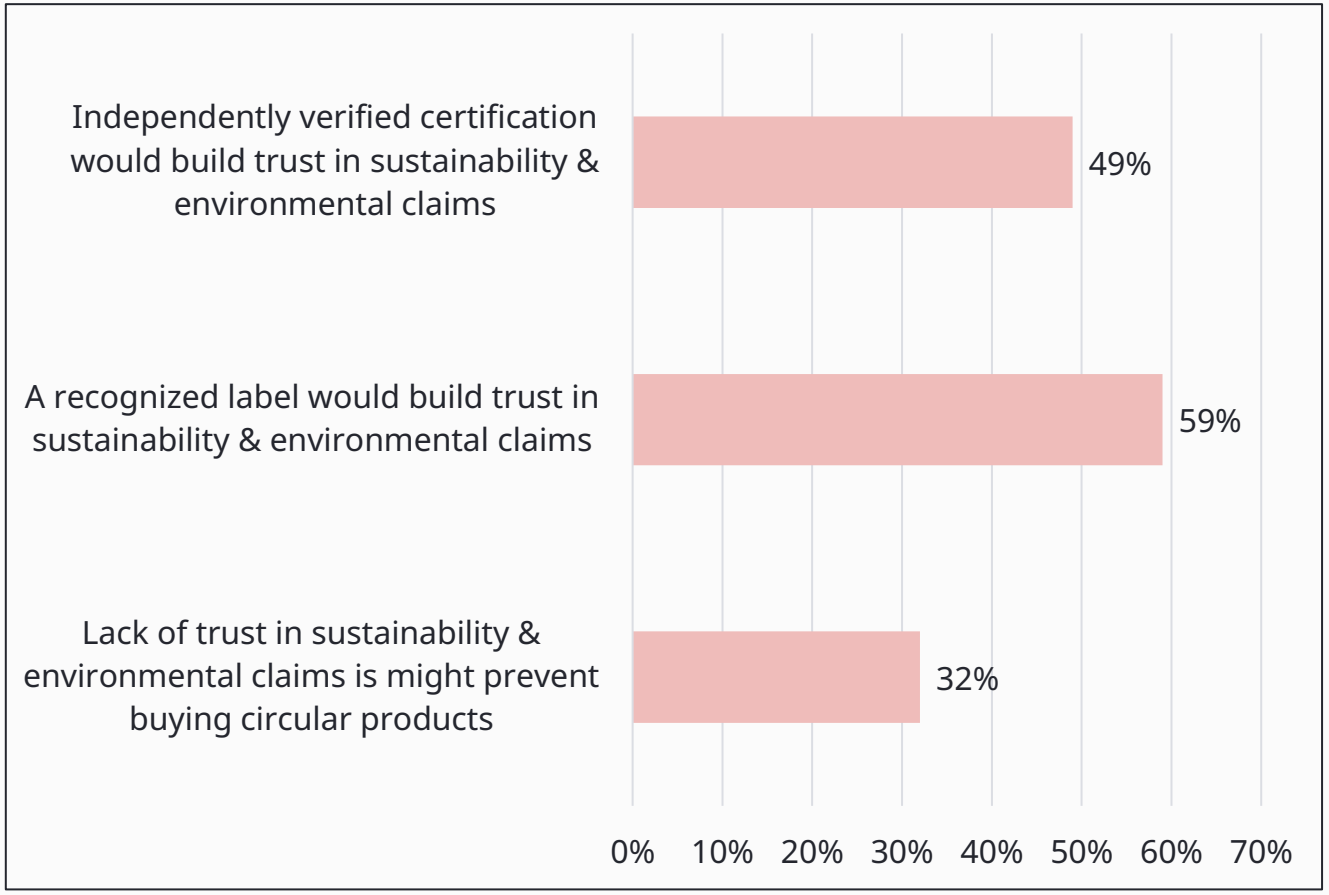
This suggests that alongside lower costs, with the right evidence in place to build trust in quality, safety and hygiene, the food sector could encourage a greater uptake of circular food products amongst global consumers.

Trust in circular sustainability and environmental claims

A third of people (32%) said a lack of trust in sustainability and environmental claims is a top barrier that may prevent them from buying or using circular products.

However, 59% said a recognized label to support the claims would build their trust, and 49% said the same of independently verified certification.

This again suggests that evidence is essential in building trust, and with the right factors in place, the sustainability and environmental benefits of circular food products could act as a key driver for further uptake.



05 - Case studies and tipping point analysis

Through our research with CISL, we conducted in-depth interviews numerous food sector organizations to understand their progress on circularity. We evaluate the organizations approaches based on “tipping point elements" at both the product/service level and the system level

For each element, we analyse the organizations initiatives and explain how trust is established or influenced within that specific context.

Tipping point elements at product and service level

For circular products and services to scale and become mainstream, they must reach a tipping point: generally defined as a moment at which adoption moves beyond early experimentation and becomes self-reinforcing across the market. Drawing upon tipping point theory and circular business models, we set out below the key conditions that need to be in place, both at the circular product level and the service level, for tipping points in circularity to occur.

Circular value credibility

Circular offerings must demonstrate that they are financially and functionally competitive with traditional, linear alternatives.

This means not only offering a lower total cost of ownership or improved resource efficiency, but also meeting or exceeding expectations in terms of quality and reliability.

Customer appeal of circular options

Circular products must resonate with customers' personal values and cultural aspirations. This involves aligning branding with the evolving lifestyle choices and consumer preferences.

Crucially, circularity must be embedded into the identity and desirability of the product at the design stage, not perceived as an afterthought.

Circular product accessibility and processing

The ease with which customers can engage with a circular product or service is a decisive factor in its ability to scale. Infrastructure must support collection, repair, redistribution or renewal processes in a way that integrates into the user's experience. This includes physical logistics, digital platforms, after-sales services, and clear customer communication.

Tipping point elements at system level

Without sustained momentum, the advancements at product-service level risk being limited to small-scale pilot / 'hero' projects that 'never fail, but never scale'. Creating the system-level enabling conditions for a circularity tipping point involves shifting drivers from primarily sustaining the current linear 'take-make-waste' model to actively disrupting it and reinforcing circular practices.

Policy and regulation

Policy and regulation need to shift from favouring linear models (e.g. subsidising virgin resource extraction) to the active promotion of circularity.

This involves creating incentives (such as taxes on waste and extended producer responsibility schemes), setting standards, supporting infrastructure development, using public procurement to create demand, and removing regulatory barriers.

Market maturity

Achieving system-level circularity depends on a mature market, which drives down costs through economies of scale and establishes robust infrastructure for reverse logistics like collection and recycling.

It also fosters widespread consumer demand and creates stable supply chains for secondary materials, making circular options economically viable and competitive.

User preference

A shift in consumer mindset and behaviour is crucial. This includes embracing service base models over ownership, participating in take-back schemes, demanding transparency about product lifecycles, and potentially exerting pressure through activism and voting.

Company A –

UK subsidiary of a multinational food and beverage company that has embedded CE principles within its sustainability agenda

Company A's packaging strategy focuses on recyclability, recycled content, and emerging reuse models. Progress includes using a high proportion of recyclable materials and increased use of certified recycled plastics, backed by robust supply chain systems. The company has piloted reuse schemes in controlled settings, such as sporting events, where infrastructure and consumer behaviour can be more easily managed.

Trust is cultivated through transparency and partnerships, though public messaging remains cautious. Barriers include infrastructure costs, limited reuse data, and regulatory constraints, especially around water bottling. Nonetheless, the company sees opportunity in policy developments, such as the UK Deposit Return Scheme, and is exploring further applications for reuse in other product categories. Life Cycle Assessment tools support evidence-based decision-making, ensuring circular initiatives are aligned with broader carbon and sustainability targets.

Company B –

American aluminium packaging manufacturer that operates primarily in aluminium packaging, producing cans for beverages and other consumer products

Circularity is fundamental to Company B's business model, given the high recyclability of aluminium. The company’s goal is to increase the recycled content of its products to 85% by 2030, up from around 74% today.

It collaborates closely with governments and industry groups to support policy mechanisms, such as extended producer responsibility and deposit return systems, which are essential for effective collection. Technical innovation plays a central role, from improving alloy recycling to minimising non-aluminium components in packaging.

The company is also exploring new applications for aluminium, including reusable bottles and aerosol containers. With operations spanning several continents, it closely monitors recycling performance across markets, recognising that infrastructure, regulation and economic incentives vary widely by region.

Product-service level analysis

Tipping Point Element	Company A	Company B	Trust
Circular value credibility	Circular packaging solutions (e.g. recycled PET, reusable bottles) still face cost challenges, particularly in categories such as mineral water. Some efficiencies exist through global procurement and certified supply chains, but reuse systems require high upfront investment.	High recycled content significantly reduces energy costs. Aluminium's intrinsic value and closed-loop recycling create a strong economic case, especially where collection is effective.	Trust is growing as both companies are investing in scalable circular take-back systems via third-party certifications and traceability systems. The companies avoid consumer-facing claims unless recycled content is 100%, due to concerns over credibility and misunderstandings
Customer appeal	Recycled packaging quality has improved and is largely indistinguishable from virgin materials in key product lines. Refill models trialled at events include sleek dispensers and branded reusable bottles. Circularity is not yet a core part of consumer emotional engagement, outside niche settings.	Promotes aluminium as a premium, sustainable material. Highlights durability, lightness and a lower carbon footprint compared to glass, increasing its perceived value.	Emotional trust is reinforced through visible quality and consistency of circular products across use cycles. While product quality is maintained, consumer trust in the concept of circular packaging (e.g. safety, hygiene, sustainability) is being built gradually through piloting and partner co-branding.
Accessibility and processing	Access to recycled materials is secured via global sourcing agreements. Processing capabilities exist in-house and via partners. However, legal constraints (mineral water must be bottled at source) restrict options. Reuse infrastructure is limited beyond controlled events or settings.	Heavily reliant on national collection systems. Actively engages with sorting, melting and reprocessing technologies to optimise circular efficiency.	Trust is built by demonstrating long-term partnerships, technological commitment, and traceability for efficient closed-loop systems. Public trust in reuse systems is still developing, as consumer convenience and hygiene perceptions remain barriers.

System level analysis

Tipping Point Element	Company A	Company B	Trust
Policy and regulation	Compliant with UK targets and global benchmarks. Supports upcoming Deposit Return Scheme (DRS) as an enabler for closed-loop recycling. Sees current plastic packaging tax as insufficient and calls for more incentivising rather than punitive policy measures.	Strongly engaged in public affairs, pushing for robust EPR and DRS frameworks. Policy is a critical enabler for high recycling rates.	Regulatory trust depends on transparency and collaborative policy engagement to align with national frameworks and to seek clearer incentives to scale circular solutions. Both firms are seen as credible advocates.
Market maturity	The UK market shows increasing regulatory and consumer pressure for sustainable packaging, but infrastructure and demand for reuse/refill models remain underdeveloped. Recycling supply chains are more advanced.	More established in Europe and Brazil, where systems enable high recovery. Less mature in the US and parts of Asia where collection is inefficient.	Trust varies by region. Maturity of local ecosystems shapes consumer and stakeholder confidence in circular models. Trust in market partners (e.g. events, retailers) is essential for pilot success. Close collaborations, but reuse models not yet commercially mature.
User preference	Consumers support recyclable packaging but show limited willingness to adopt reuse systems due to effort, cost, and unfamiliarity. Messaging complexity around recycled content is a barrier.	Cans are widely accepted by consumers, but collection behaviour is inconsistent. Consumer awareness supports aluminium recycling when infrastructure exists.	Trust is influenced by consumer experience as consistent convenience and clear environmental impact improve adoption. The companies avoid overstating benefits and focus on product experience and quality in early-stage reuse rollouts.

Explore the full research

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06 – Appendix
Recommendations, tools and solutions

Framework for implementing the principles of the circular economy in organizations

BS 8001

BS 8001 was the world's first standard to offer a practical framework for organizations to implement the principles of the circular economy. Relevant to organizations from all sectors, the standard provides guidance and recommendations that will help an organization turn the circular economy concept and theory into practical action.

This framework can provide a structured approach to managing resource flows, evaluating risks, fostering collaboration across the supply chain, developing innovative business models, and adopting a holistic perspective throughout the entire product and service lifecycle.

Learn more about BS 8001
Explore BS 8001 training

Recommendations, tools and solutions

Food safety management systems

ISO 22000, GFSI standards – FSSC, BRCGS, SQF, Global G.A.P

ISO 22000 and GFSI standards provide a framework for safe reuse, recycling, and waste reduction practices within food production and processing environments, helping organizations manage food risks while supporting efficient resource use and minimizing waste.

Learn more about ISO 22000 Food Safety Management System

Food loss and waste

With new ISO standards on food loss and waste management expected in 2026, BSI is positioned to guide organizations through compliance and best practice adoption as regulatory landscapes evolve.

Learn more about managing food loss and waste

Recommendations, tools and solutions

Life Cycle Assessment (LCA)

ISO 14040 & ISO 14044

Life cycle assessment can be used to quantify environmental impacts of agricultural products and circular food systems, enabling comparison between linear and circular models such as traditional Vs regenerative farming.

Learn more about ISO 14040 – Life Cycle Assessment Principles Framework
Explore ISO 14044 – Life Cycle Assessment requirements and guidelines

Environmental Management Systems (EMS)

ISO 14001

Environmental Management Systems support organizations in identifying environmental impacts and optimizing processes to reduce waste, energy and emissions across the food supply chains enabling continuous improvement toward more circular and sustainable operations.

Explore ISO 14001 – Environmental Management Systems