

LOOPS OF LIFE

How consumer products and retail brands
can build value and resiliency through
the circular economy



Authors:

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INTRODUCTION

Sustainability is not a fad or a fashion – it is an imperative. Study after study confirms that people must change the way they consume products and organizations must alter the way they structure and run their business to address the grave effects of climate change and make the best use of Earth's natural resources.

For consumer products and retail brands, sustainability starts with the supply chain – designing products and processes that align with the principles of a circular economy, a closed system that promotes long-term resilience, eliminates waste, and reduces the drain of materials.

Underpinned by advances in technology and the availability of renewable energy, the circular economy promises to enable the long-term viability of brands, while simultaneously creating societal benefits and reducing environmental impact.



SO WHY HASN'T IT HAPPENED YET?

The circular economy is an economic system that promotes sustainability by mimicking nature's ability to design out waste and pollution, keep products and materials in use, and regenerate natural systems.

Source: Ellen MacArthur Foundation

The challenge

For most traditional consumer products and retail brands, transitioning to a circular economy is a matter of practicality. Unlike new entrants and startups that can design products and processes with sustainability in mind, established organizations must contend with legacy systems, rigid infrastructure, and a vast, complex network of stakeholders. These companies often struggle to achieve visibility on a one-way street of their supply chain, let alone the roundabout needed to enable circularity.

And therein lies the problem: it's impossible to eliminate waste if the organization traditionally did not register said waste in the first place. It's difficult to reclaim and reuse products if the current infrastructure treats returns as a nuisance instead of the norm. It's challenging to reduce "virgin" material consumption if the organization cannot accurately assess when recycled materials will make their way back to the organization – and the honest cost of practicing one approach over the other.

Add to this scenario the consumers: active, engaged, but demanding as ever. They expect more from brands in the way of sustainability, but are often unwilling to pay a premium for it. Nor do they want to expend significant effort disposing of the good when they have finished using it. Thus, the stakes for consumer products and retail organizations are raised as they must undergo a massive shift in operations without ever failing to meet customer expectations.

The imperative for change

The sustainability conversation often takes a dark and dramatic tone – and with good reason. Research proves that present business models are unsustainable. For most organizations, the stark implication is that they must embrace the circular economy because the traditional linear economy will not be viable in the longer term.

At the same time, businesses should approach the circular economy with a sense of opportunity, as opposed to resignation. Over time, the true costs of new materials will outpace that of reclaimed materials, especially if organizations are strategic in their choices from the very beginning. Further, organizations must accept the inevitability of this shift, as pressure from both society and legislation to reduce their environmental impact continues to mount.

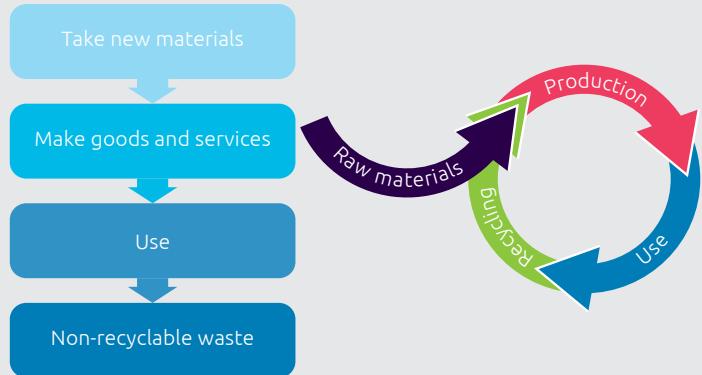
"Organizations can think about what they're throwing away now and consider that a lost opportunity in itself," says Katja van Beaumont, Vice President, Capgemini. "But they should also have an intrinsic motivation to adapt. If the organization is not the one ahead, then it will be the one left behind – caught by legislation or outpaced by society."



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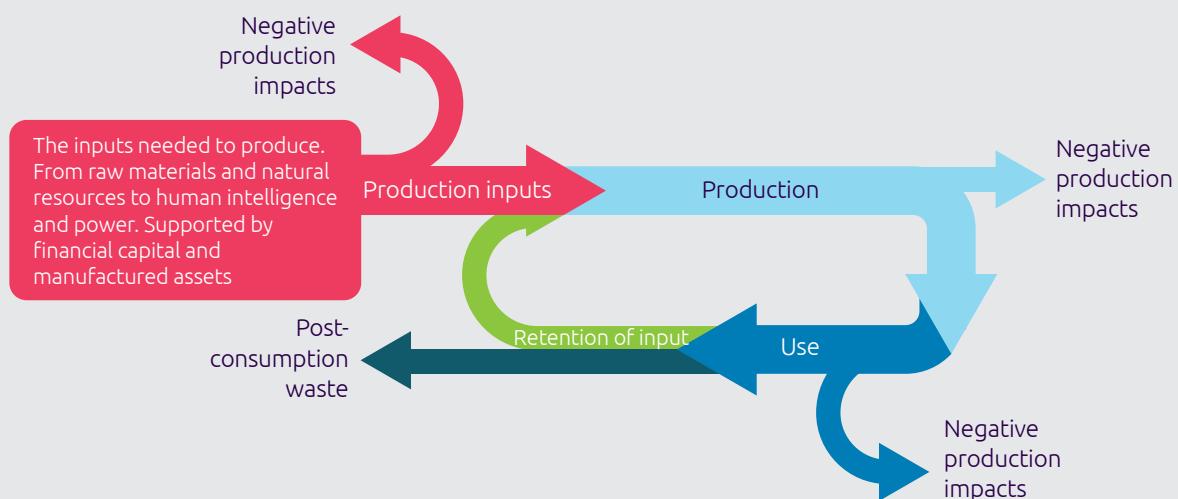
Katja van Beaumont, Vice President

LINEAR ECONOMY AND CIRCULAR ECONOMY



While most organizations realize that the linear economy will eventually be rendered obsolete, they have not fully committed to the circular economy. Recycling is widespread but not pervasive; organizations have begun using waste products as a revenue source, but the practice is far from prevalent; selling products as a service is becoming more common, but society at large still thinks in the traditional terms of ownership and disposability.

NEGATIVE IMPACTS AT EACH STAGE OF PRODUCTION



Source: Government of Netherlands



Many organizations are approaching the conversation around sustainability with the aim of being 'less bad'...operating somewhere between a traditional linear and theoretical circular economy – what we sometimes call the semi-circular economy."

Dr. James Robey,
Global Head of Environmental Sustainability

While a semi-circular economy is an improvement, it does not provide an adequate response to the planetary-level sustainability challenges that we face, and it will not offer businesses a path to long-term viability and profitability. For organizations that are in the process of transition, the semi-circular economy may be part of the journey, but it should not be considered the final destination.

It is important to keep in mind that, for many consumer products and retail organizations, a full transition to the circular economy will require collaboration between many different partners. In the vast majority of cases, it will be simply impossible to reprocess or reuse every product within the boundaries of the organization. Thus, businesses must draw on the concept of the ecosystem, creating symbiotic relationships with other companies and organizations, particularly as it relates to effective use of by-products, refurbishing, and upcycling, as well as the creation of progressive policies that regulate and benchmark efforts.

DESIGN ON LOOP

Enabling the circular economy will require organizations to fundamentally change every aspect of their business, including product design. For many consumer products and retail organizations, that may mean designing from the end of the product lifecycle – focusing on circularity of the good, as opposed to just its immediate functionality.



When designers create a product, part of the brief should focus on what happens when the owner no longer needs or wants the item. What do we expect the consumer to do with this product at the end of the experience? How does the organization's supply chain need to change to accommodate this new behavior?"

Andrea Fischer,
Senior Service Designer
Idean, the design arm of Capgemini

STRATEGIES FOR ENABLING THE CIRCULAR ECONOMY

Repair	<ul style="list-style-type: none">• How can the product be maintained by the manufacturer or the customer?• What support or resources does the organization offer to customers to repair the product?• What materials will the customer need and where can they be obtained?• What laws or regulations are being implemented that grant customers the "right to repair" products?
Reduce	<ul style="list-style-type: none">• Which elements can be taken out of the product lifecycle, especially as it relates to production and packaging?• How can brands switch design components to favor sustainable materials?• What new business models and consumer channels can brands consider to change the way people and businesses use single-serve plastic and other non-reusable materials?
Reuse	<ul style="list-style-type: none">• How can people reuse this product?• What partnerships can the organization form to enable reuse of the product in its present state?• What cross-industry opportunities are there to repurpose or upcycle this product's components or materials?• How can brands introduce new business models that reposition one-time products as ongoing services?
Refurbish	<ul style="list-style-type: none">• How can this product be refurbished or remanufactured?• How does this product re-enter the cycle?• What can be done with waste or by-products that our organization does not need?
Recycle	<ul style="list-style-type: none">• How does an organization or consumer recycle this product?• How can we lessen the burden on the customer and make this process as effortless as possible through convenient collection and return points?• What do we do with the materials to give this product a second life?• How do brands collaborate with logistics service providers (LSPs) to integrate recycling options within the existing ecommerce supply chain?



As consumers, when we hear about the circular economy, we may automatically jump to recycling. The truth is, there are four more effective and energy-efficient strategies that should be deployed before consumers even have the chance to consider recycling."

Andrea Fischer

OUR SOLUTION

Moving towards a circular economy is a necessary but challenging task. Capgemini has developed a methodology to help organizations understand and assess their current impact and identify opportunities to embrace circular economy principles.

Adapted from the International Integrated Reporting Council's (IIRC) Six Capitals framework, our approach focuses on creating a holistic view of the organization and accurately measuring impact across six key areas.

The Six Capitals	Why it matters	Examples
Natural	Every organization depends on natural capital – which forms the basis of all life on Earth. For example, all organizations use energy and nearly all generate waste.	Sinks like forests and oceans which absorb, neutralize, or recycle wastes. Renewable and non-renewable resources. Processes such as climate regulation or photosynthesis
Human	Human capital encapsulates the elements required for productive work. To thrive, organizations require healthy, motivated, and skilled employees.	Skills, experience, knowledge, health, motivation
Social	Organizations depend on social relationships and interactions, both internally in terms of the shared values and norms which allow people to work together, to externally, whereby social structures impact an organization's license to operate.	Shared norms, common values, and behaviours. Families and communities. Businesses, trade unions, schools, voluntary organizations.
Intellectual	Intellectual capital is the knowledge and skills of how an organization manages the other five Capitals to differentiate itself.	Intellectual property, industry knowledge, reputation, brand
Manufactured	Albeit not a part of the actual output of an organization, without it an organization would not be able to produce its goods or services.	Equipment, buildings, infrastructure
Financial	Financial capital is the traditional measure of a business' success.	Shares, bonds, banknotes

 Environment all Capitals sit in  Activities linked to humans  Activities most commonly reported

Source: International Integrated Reporting Council

Our methodology is multifaceted and multidirectional, capturing both the positive and negative elements of an organization's activities across all Capitals, while also assessing external factors. By considering how to protect and maximize the value of each area, the organization can create its own vision of a circular, sustainable operating model.

As always, our methodology is built on the "think big, start small, scale fast" mentality. Our approach aims to identify quick wins, areas where the organization can generate significant impact without serious investment. Taking this approach, it is possible to demonstrate success and build momentum within the organization – thus enabling transformation at scale.

A CIRCULAR ECONOMY IS A COOPERATIVE ECONOMY

Consumer products and retail organizations operate within a complex web of suppliers, manufacturers, retailers, and a network of other stakeholders. Successfully transitioning to a circular economy requires collaboration from across this network.



Unlike startups and new entrants, large, traditional consumer products and retail organizations have an advantage in the breadth and depth of their network. The size and scale of these organizations open the door to partnerships and collaboration that many smaller organizations cannot match.

Katja van Beaumont

CONCLUSION

Capgemini takes a value network approach to sustainability, which involves developing, identifying, and finding new partnerships to tackle challenges related to the circular economy. This approach confirms the idea that the circular economy is not singular in nature, but central to all organizations. It requires cooperation from all parties to unite around a common goal, share both the intellectual and infrastructural burden of change, and exchange goods and information to enable progress. Working in this way is not unlike the operation of a natural ecosystem, which allows for the coexistence and advancement of many species through symbiotic relationships.

While the value network approach is arguably a more complex way of working, it is also capable of more impact as it links previously unrelated organizations and identifies new opportunities to create value from recycled materials, shared infrastructure, and previously discarded byproducts. It also helps keep all parties accountable for the production of waste and pollution.

As part of our engagements, we often serve as an independent partner facilitating the various steps in the supply chain or value network. We engage all players in the network interaction, setting common objectives and managing metrics and logistics across all parties.

Looking beyond partnerships, Capgemini also helps organizations enable circularity through technology. While IT costs continue to fall, its capabilities are expanding. More can be delivered by leveraging big data, AI, and robotics to develop new use cases for by-products that were previously seen as waste. 3D printing presents another opportunity to reuse plastic for new product components or packaging. Realizing this vision often requires reinvention and optimization of the organization's supply chain, which can be driven by the application of big data and intelligent automation.

At Capgemini, sustainability and circularity are not stand-alone efforts. Nor are they one-time considerations. Rather, they are important components of each and every business engagement – from supply chain optimization to IT modernization to product development. They require ongoing effort and attention, as would any technological, procedural, or human capacity.

To stand the test of time, we encourage our consumer products and retail clients to embrace the principles of the circular economy – infusing them into every aspect of their operations and culture. We urge business leaders to think not just of the next quarter, but the next generation. We help carry these practices through to end users, treating them not as consumers, but as active participants in this new ecosystem.

Working in this way, we hope to advance the circular economy, transforming it from theory to reality – and granting all products many loops of life.

About Capgemini Invent

As the digital innovation, consulting and transformation brand of the Capgemini Group, Capgemini Invent helps CxOs envision and build what's next for their organizations. Located in more than 30 offices and 22 creative studios around the world, its 6,000+ strong team combines strategy, technology, data science and creative design with deep industry expertise and insights, to develop new digital solutions and business models of the future.

Capgemini Invent is an integral part of Capgemini, a global leader in consulting, technology services and digital transformation. The Group is at the forefront of innovation to address the entire breadth of clients' opportunities in the evolving world of cloud, digital and platforms. Building on its strong 50-year heritage and deep industry-specific expertise, Capgemini enables organizations to realize their business ambitions through an array of services from strategy to operations.

Capgemini is driven by the conviction that the business value of technology comes from and through people. It is a multicultural company of over 200,000 team members in more than 40 countries. The Group reported 2018 global revenues of EUR 13.2 billion.

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