

# Ahead of the curve

How the circular economy can unlock business value

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**CORPORATE CITIZENSHIP**  
Part of The Good Relations Group



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# Foreword

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What is old is new again - but better. The current topic of the circular economy takes familiar concepts like life cycle assessment and closed loop and brings them together in an integrated way not seen before.

What makes the circular economy exciting is that the discussion is no longer a technical one that exists deep within a company only to be understood by a few experts. Instead companies are beginning to recognize that they are not an island; rather that they operate in an environment where concerns are growing about resource scarcity.

This holistic thinking is helping the discussion to go company-wide. Companies are expanding the old focus of doing more with less to save money and now understand that there are more factors at play. Companies are being more creative about material choices in the first place. The circular economy also considers the external environment differently than past concepts have, which have been rather internally focused. Consumer preferences are changing, especially among millennials who simply just have a different point of view to previous generations. Technology plays an amazing role in driving significant change, allowing companies to gain insight faster, as well as lead to awe-inspiring inventions.

In this paper you will find examples of how companies are participating in the circular economy. As expected, well-established companies are developing specific projects. These will resonate with many of our clients who may be undertaking their own initiatives to test the waters. Then you have disruptive new companies that are creating entire business models on circular economy principles. Talk about being forward looking and betting the bank!

This paper discusses the evolution of the circular economy and outlines benefits that companies participating in the circular economy receive. But with all things there are challenges. Change is never easy and each company will face its own unique challenges. Yet we find similarities in those challenges and explore them. As an antidote we provide practical guidance, which will take work to implement but is worth it.

Companies that benefit from the circular economy will be those that are quickest to move past excuses and incremental steps. The real winners will be those companies that truly grasp the bigger picture and the huge system in which the company operates. The overarching advice I would give every company is to be brave!

A handwritten signature in black ink, appearing to read 'Megan DeYoung'.

**Megan DeYoung**

Director, Corporate Citizenship

# Introduction

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## Today's global megatrends are changing the way we interact

In today's climate, businesses are increasingly recognising the tension between industrial growth and the pressure placed on economic, ecological and social systems. Population growth, affluent consumer bases, volatile market prices, climate policies, combined with disruptive new businesses and technologies, are some of the compelling forces of the world today- which is rapidly moving beyond business as usual.

The circular economy challenges the traditional linear and resource intensive model of our modern industrial economy- one of 'take, make, waste and dispose'. It integrates existing models of dematerialisation and reuse in order to put forward a holistic effort to rethink industrial systems. Traditionally, companies have sought to obtain resource efficiency as a way of achieving sustainable growth. Combining new ideas and business models, the circular economy moves the debate away from efficiency - and on to resource, labour and capital effectiveness. The question is; how do I continue doing what I want to do, but in a better, more effective way? The ultimate vision is to create a regenerative, self-organising and sustainable market economy. For many, the circular economy presents an exciting new

way to create value for the firm, by challenging existing industrial paradigms- towards a new strategic direction that's relevant for our changing world.

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*The circular economy challenges the traditional linear and resource intensive model of our modern industrial economy*

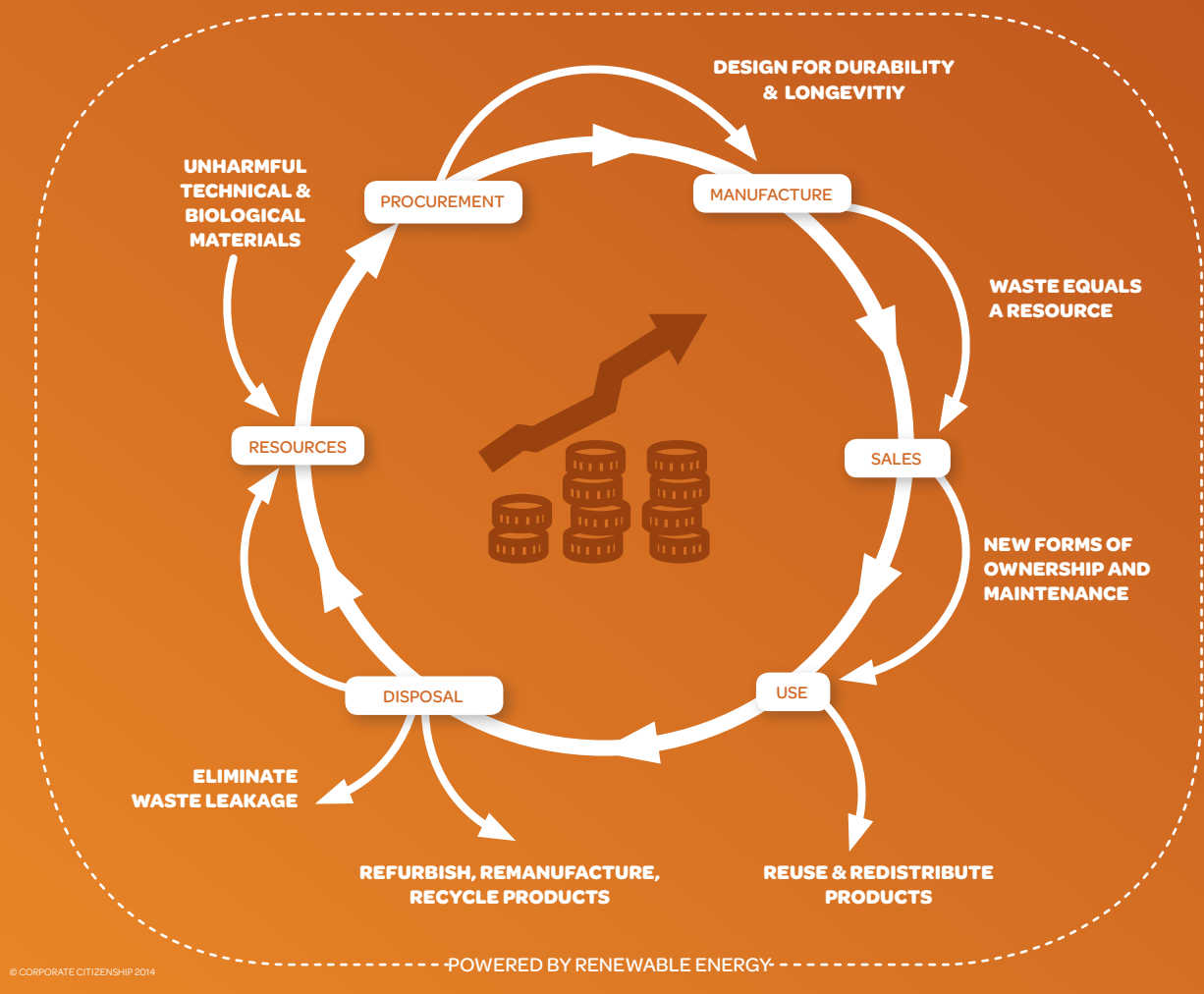
### BOX 1. KEY CIRCULAR ECONOMY SOURCES

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**Key terms:** cradle to cradle, closed-loop, zero-waste, biomimicry, industrial ecology, material science, eco-design, product lifecycles, embodied energy, reuse, recycle, remanufacture, systems thinking, renewable energy, reverse logistics, shared economy, collaborative consumption, wisdom of the crowd

**Key thinkers:** Walter Stahel, Janine Benyus, Michael Braungart, William McDonough, Ellen MacArthur, Karl-Henrik Robèrt, Rachel Botsman

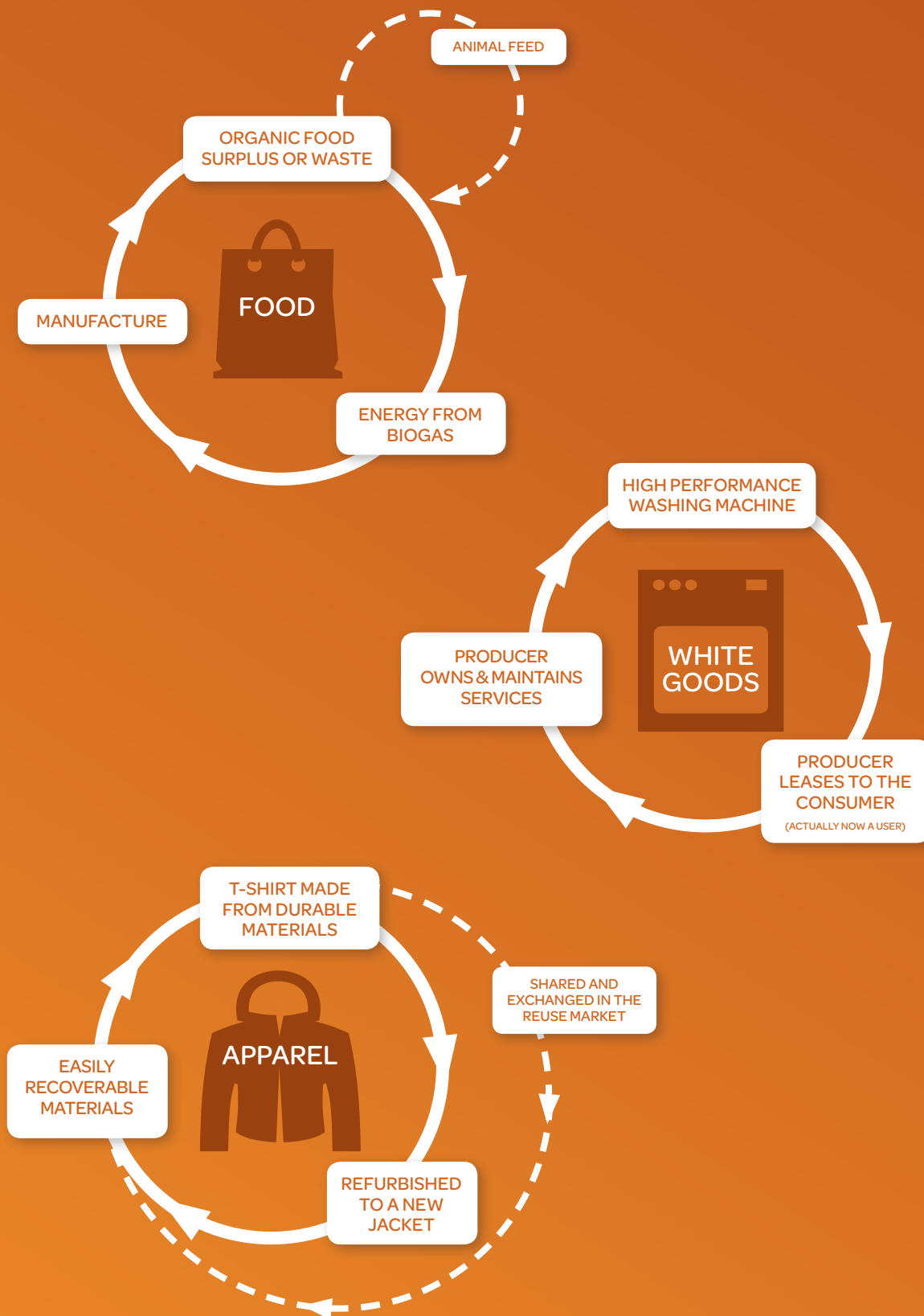
DIAGRAM 1: HOW THE CIRCULAR ECONOMY CREATES VALUE



**BOX 2. THE CORE COMPONENTS OF THE CIRCULAR ECONOMY**

- A perspective on waste that looks at the entire value chain
- Designing a value chain which uses or generates renewable energy
- Sourcing or creating clean materials which are either safe for the biological environment or can be circulated at length and durability in the technical environment
- Designing products that extend their lifecycle (through use-ability or durability) and captures greater embodied energy
- Substitution, exchange and cascading of waste of one company as resource for another
- Product or service innovation which results in new business models and consumer behaviour change such as leasing and sharing
- Building capacity at the 'end of life' stage, through remanufacturing, reverse logistics and product take-back methods
- Developing policy and standards which support resource effectiveness
- Cross-sector collaboration to widen the lens
- Capitalising on the digital age by using Information Communications Technology (ICT)-enabled technology to support new business models

## DIAGRAM 2. ILLUSTRATIVE INDUSTRY DIAGRAMS



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# From incremental to transformational change: why now?

As highlighted in Box 1, many of the concepts which make up the circular economy have been around for years. What makes the circular economy so attractive to stakeholders now is that it provides a framework in which these concepts can be brought together. Collectively, they work to maximise synergies in labour, capital and resources, which are now much more conducive to our global context. Four key factors in particular stand out:

## 1. THE NUMBERS HAVE BEEN CRUNCHED

In the past five years, ground-breaking research has revealed the substantial gains for businesses, should they invest in circular thinking. Converting to a circular economy would generate in excess of \$1 trillion material cost savings per year globally by 2025.<sup>1</sup> The European Union (EU) estimates that applications of the circular economy can bring net savings for EU businesses of €630 billion, an increase in resource productivity by 30%, boost GDP by 1%, and create 2 million additional jobs by 2030.<sup>2</sup> In the US, it was estimated that in 2013, more than \$3.5 billion in revenues were generated from transactions in the sharing economy, a core component of the circular economy, with growth exceeding 25%.<sup>3</sup> In the UK alone, the circular economy has created over 10,000 jobs, in over 5,000 companies and is servicing a market worth £15 billion<sup>4</sup> It is these newly available macro-level cost estimates which are attracting the attention of industry players – still decoupling growth from environmental harm, but in a business-friendly language.

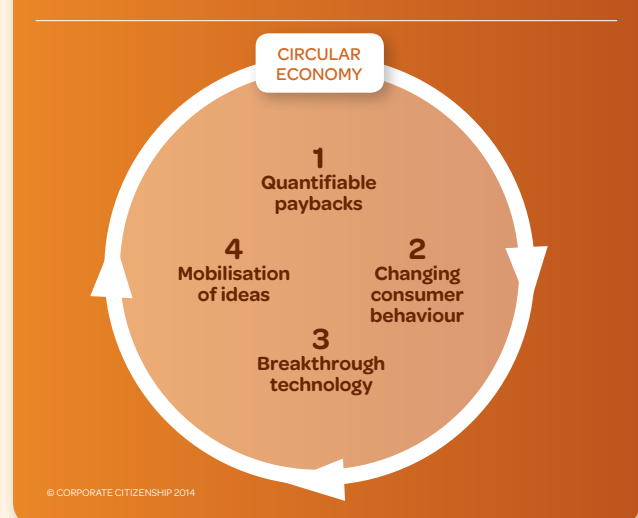
## 2. THE CHANGING NATURE OF CONSUMERS

A shift in consumer behaviour has also catalysed the application of circular thinking. The rise of the 'sharing economy', a consumer driven and collaborative way to transact goods and services sends signals of a changing paradigm. This is particularly the case of the new millennials. In the latest 'Aspirational Consumer Index', representing 21 international markets, 95% believed in the idea of consuming less to preserve the environment for future generations, and 90% were willing to pay more for products produced in a socially and environmentally

responsible way.<sup>5</sup> Evidence suggests that the perception of what products and services consumers see as valuable is changing. This is shifting away from ownership of assets, towards accessing or experiencing the economy.

The growth of disruptive innovations such as Zipcar, Lyft, TaskRabbit, LiquidSpace and Airbnb carry common themes- a decentralised service which has the enhanced ability to deliver services via crowd sourcing and sharing. Zipcar and Airbnb offer a much more personalised touch to car sharing or room rental than traditional rental or ownership models. Lyft and TaskRabbit offer a peer-peer platform for exchanging car lifts and household tasks. LiquidSpace facilitates the access and sharing of office spaces when underutilised. Such innovation enables companies to respond more quickly and effectively to a diverse and disparate consumer base. Traditional industrial models are slowly breaking down to more inclusive, crowd-sourced business models where consumers find innovative ways to take ownership and become producers themselves – with the aid of the internet and crowd analytics. Leasing, sharing, swapping, auctioning and bartering are rising forms of exchange-reducing the pressure on resources yet delivering on a more bespoke and fragmented

DIAGRAM 3: ENABLERS OF THE CIRCULAR ECONOMY



1 *Towards the Circular Economy* vol.3, Ellen MacArthur Foundation, 2014  
2 *Towards a circular economy: A zero waste programme for Europe*, European Commission, 2 July 2014  
3 Tomio Geron, 'Airbnb And The Unstoppable Rise of The Share Economy', *Forbes*, 11 February 2013  
4 <http://sustainablebusiness.bitc.org.uk/circular-economy>  
5 *Meet the Aspirational*, BBMG & GlobeScan, July 2014



consumer demand. It is essential that companies harness shifting consumer hotspots in order to keep agile and competitive.

### 3. THE PROLIFERATION OF BREAKTHROUGH TECHNOLOGIES

A fundamental driver of this changing economy is technology. The proliferation of ICT-enabled services has built a much more integrated feedback mechanism across the full value chain. Ubiquitous computing allows producers to locate materials and components as they move through the manufacturing process—enabling better material recovery and capturing more embodied material value. Machine-to-Machine services enable businesses to exchange real time information helping with smarter, more energy efficient logistics, cost savings and better customer services. Big data and the internet of things allow companies to monitor and act upon new trends and consumer behaviours, through better product or service models and engaging with new collaborations. 3D manufacturing or ‘additive manufacturing’ will enable the leaner design of products, wasting fewer resources. It will also meet consumer demand without producing excessive stock— which often goes to waste as trends change. Capitalising on the digital revolution through applying circular thinking presents a transformative business opportunity.

### 4. THE MOBILISATION OF IDEAS

The circular economy is a collective effort to bring together many environmental and economic theories - with the aim of completely redesigning the current system. Borrowing from ideas such as closed loop manufacturing, biomimicry, reverse logistics and

industrial ecology, the circular economy now seeks to create a global enabling environment where ideas and examples are shared across industrial zones. This is needed in order to scale-up the transition towards a more restorative, resource effective economy. It is a more holistic, systemic based approach to global resource issues. Initiatives from around the world mobilise signals that the economy is transitioning.

Since 2000, Japan has rolled out a number of policies focused on tackling excess waste and resource scarcity. The Law for the Promotion of Efficient Utilisation of Resources, for example, covers the entire product lifecycle from upstream to downstream and is aimed at both producers and consumers. As a result, by 2007, only 5% of Japan’s waste went to landfill.<sup>6</sup> In 2009, China adopted the Circular Economy Promotion Law with the aim to develop cleaner production methods, address municipal waste through closed loop flows, and facilitate the development of circular economy policies at all governance levels.<sup>7</sup> One of these results is that Beijing has reduced its energy consumption compared to GDP by 62% (2010) and reduced consumption per capita by 45% since 2005.<sup>8</sup> The World Economic Forum in Davos 2013 created a platform to discuss the scale up of the circular economy for the first time, and brought together actors ranging from the European Commission, the Brazilian National Development Bank and the Young Global Leaders.<sup>9</sup>

We believe these key factors present a grand opportunity for business. Applying circular thinking to this shifting economy provides a clear, strategic framework. In order for companies to stay competitive, it is essential that they collaborate with new market players and embrace the capabilities of technology.

#### BOX 3: WHAT COULD MY CIRCULAR ECONOMY STRATEGY LOOK LIKE?

1. Which material inputs would give us longer lasting and higher performance outputs?
2. If I placed more emphasis in upstream design of my product, could I substitute scarce and carbon intensive materials with cleaner, more regenerative ones?
3. How could other industries and sectors benefit from the way I source, use and dispose of materials?
4. Can I valorise my supply chain waste by selling it to others?
5. Is there a way I can deliver my product/service with more effective use of resources, labour and capital?
6. How can ICTs help enhance my operating model?
7. How can services such as big data, cloud computing and social media be used to give us a leading edge in adopting circular economy solutions?
8. Where in my value chain can I source, produce and use renewable energy?
9. What will be the future tastes and preferences of my customers? How will they think, demand and interact?

<sup>6</sup> Towards the Circular Economy vol.3, 2014, Ellen MacArthur Foundation

<sup>7</sup> Dajian Zhu, ‘China’s policies and instruments for developing the circular economy’, Greeneconet

<sup>8</sup> Towards the Circular Economy vol.3, 2014, Ellen MacArthur Foundation

<sup>9</sup> <http://www.weforum.org/issues/circular-economy>

# What are the key challenges to going circular?



## BUILDING A CRITICAL MASS

Traditional fossil fuel based raw materials remain cheaper than more effective substitutes. Integrated global supply chains mean that businesses find they lack the critical mass needed to start large-scale efforts to substitute resource scarce or hazardous materials with cleaner, restorative or more regenerative ones.



## DEVELOPING MATERIAL AND DESIGN STANDARDS

There is currently a lack of consensus for the way we make products in terms of the materials used and how they are developed. One material or component may be developed in a resource effective way, but loses this value if mixed with an ineffective one. This is inextricably linked to complex global supply chains, which can cause materials to leak value as they move across international markets. This global issue may be solved if there are clearer standards across industries for how and where our products are made.



## SETTING CLEARER GOVERNMENT SIGNALS

To transform the current system, business needs the support and incentives of government. Governments at all levels therefore need to advance policy instruments to create the right enabling environment. Investing in research and acting as the intermediary between business and consumers is a key role.



## DEVELOPING SKILLS

Core business functions currently lack the STEM (science, technology, engineering and maths) based skills necessary to drive strategy, design and innovation towards the circular economy. These subjects are not mutually exclusive yet many business departments are siloed. It is important to see the opportunity of placing integrated knowledge in one room to solve resource challenges.



## TRANSFORMING MIND-SETS

Industry actors and policy makers need to speak in a common language that the C-suite can relate to and therefore shift perceptions. The circular economy serves as a concept which can be communicated in terms of cost-savings, new investment opportunities and enhanced value.



## UPDATING THE LEGAL FRAMEWORK

The shifting economic paradigm has encouraged new forms of exchange, collaboration and knowledge sharing. Moving towards new business models such as leasing or sourcing from secondary markets will drive new liabilities and service obligations. The legal framework needs to be updated to accommodate these developments.



## FINANCING THE TRANSITION

Without the finance and investment community understanding the shift towards circular economy practices, companies that want to explore product and service innovations face cost barriers. At the transitional stage, investors need to develop a longer term mind-set in order to encourage and support business changes.



## CHANGING CONSUMER BEHAVIOUR

The efforts of business moving towards a circular economy require attitudes and behaviours of the mass consumer to change. While there are signals of changing consumer taste, it is difficult to shift old habits. The challenge for business is therefore to make changes or innovations with minimal need for consumers (or users) to feel that they are dramatically adjusting or adopting behaviour.

# What are the benefits from the circular economy?

We believe that applying circular economy thinking can lead to benefits for companies in terms of cost savings, growth and innovation. Below we outline the key reasons to move towards the circular economy and how this can help your business unlock value.



## 1 OPTIMISING THE USE OF MATERIALS

Companies should first look within operations to seek out opportunities to achieve cost savings and drive environmental benefits. It can enable companies to capture greater embodied value from resources, or re-route material uses and extend their lifecycles. Exploring the reuse, remanufacture and refurbishing of materials within the value chain can lead to significant cost savings and less dependence on the need for resource inputs made from virgin materials. Dutch based multinational Philips saved €471 million last year by simplifying its operating model using this approach.<sup>10</sup>

**CASE STUDY:** Renault is a French multinational vehicle manufacturer, established in 1899 and operating in over 120 countries. Its repair and remanufacturing plant based in Choisy-le-Roi, France has generated revenues of \$270 million annually through removing and repairing old car parts. The plant reengineered parts are then sold at 50-70% of their original price and come with a one year warranty. Renault has also standardised the design of some components in its cars to increase the ability to reuse parts across different models. The reduction in capital expenditure in terms of less resource, waste and need for heavy machinery offsets the need for more labour. As a result, Renault has achieved reductions of 80% for energy, 88% for water and 77% for waste.<sup>11</sup>

The research efforts of industry, combined with technological insights are also opening a number of promising ways to substitute scarce materials for more eco-resilient ones. Graphene, for example, is a new synthetic wonder material with the potential to transform a range of sectors such as energy, health, electronics and construction due to its strength and flexibility.<sup>12</sup> US based company Ecovative has pioneered a bio-based material known as Mycelium - a mushroom agricultural by-product that is 100% compostable. This highly versatile product is being applied in packaging, home insulation and cars to enable companies to reduce waste through more restorative design.<sup>13</sup> The potential to transform CO<sub>2</sub> into common polymers is being trialled by Novomer in the US and Bayer in Germany and would revolutionise the perception of CO<sub>2</sub> from a huge environmental pollutant, to a feedstock in the production of plastics.<sup>14</sup>

Companies could gain a significant first mover advantage by collaborating with design and material experts and reviewing their material sourcing and product composites policy.

**CASE STUDY:** MBA Polymers was founded in 1992 by Dr Mike Biddle and have become a world leader in producing plastics from a variety of co-mingled waste streams. Headquartered in UK, the company mines plastics from some of the largest waste streams in the world. The mining process requires 20% less energy than what would be required to produce virgin plastic from petrochemicals, heavily reducing greenhouse gases emissions. Global manufacturers use the plastic in their products, reducing their reliance on virgin plastic. Overall, this closed-loop supply cycle contributes to a reduction in the use of natural resources. The pure and consistent materials provide customers with cost advantages as well as price stability. They save over 80% of the energy and 1-3 tons of CO<sub>2</sub> for each ton of virgin plastics replaced.<sup>15</sup>

<sup>10</sup> 'How Philips is transforming its business model for sustainability', The Guardian Sustainable Business

<sup>11</sup> <http://reports.weforum.org/toward-the-circular-economy-accelerating-the-scale-up-across-global-supply-chains/view/the-limits-of-linear-consumption/>

<sup>12</sup> David Larousse, 'Graphene - the new wonder material', The Guardian Science

<sup>13</sup> <http://www.ecovativedesign.com>

<sup>14</sup> Towards the Circular Economy vol.3, 2014, Ellen MacArthur Foundation

<sup>15</sup> <http://www.mbapolymers.com>

# 2



## REALISING NEW REVENUE STREAMS

Circular economy places responsibility on producers and policy makers to consider the full implications of what they introduce to the marketplace. It asks them to question how consumers will utilise products and services in a way that captures the greatest value and optimises the system. By applying circular thinking across the value chain, a company can radically transform its product or service by rethinking the way it does business, and its relevancy in today's world. Key to this is the mass availability of ICT-enabled services which are producing big data and consumer insights. This has provided a new source of intelligence for companies, where the product development process can happen a lot faster. Conducting a business model assessment can identify new revenue streams, product or service innovations and interesting co-creations.

We believe the following three circular-based business models can unlock new revenue streams:

### 2.1 Performance models

Exec, Zilok and Sidecar are examples of companies that have disrupted the market through their innovative lease-based business models. They have enabled greater freedom of ownership and mobility to the consumer by understanding their changing demands and preferences. Project Box by B&Q enables customers to 'borrow' toolkits for a service fee, based upon the realisation that most toolkits are used for only 2% of their intrinsic value.<sup>16</sup> In doing so, they have influenced wider behaviour change – as peers share experiences and build trust in new services. More traditional manufacturers such as automotive and white good producers are also rethinking how to continue to provide their product, but with less reliance on resource inputs. Through leasing models, companies are starting to compete based on the quality, durability and effectiveness of services rather than on price. BAM, a UK construction company has recently developed a semi-circular building in the Netherlands by setting up performance contracts, where users pay for light quality rather than light fixtures.<sup>17</sup> Phillips is offering a pay-for-use MRI service to hospitals rather than simply selling the product as a one off transaction.<sup>18</sup> As a result, companies are also taking greater responsibility for product lifecycles, as they begin to internalise the costs of maintenance and repair.

**CASE STUDY:** Riversimple is a Welsh hydro-car manufacturer focussed on "whole system design", based in Wales, UK. It has worked on the radical design of a new car, which only emits a tiny amount of water, yet runs at a speed of 200mpg. The eco-friendly car is made from lightweight but strong composite materials. As part of its vision to be a resilient, successful and sustainable business, Riversimple will not sell its car, but instead offer mobility as a service. For a fixed fee, consumers will receive the car, fuel, insurance and maintenance to run it. Riversimple will retain ownership of the car: it is therefore in its interest to make the car as durable and sustainable as possible- aligning the interests of people and the planet.<sup>19</sup>

### 2.2 Refurbish and repair models

By designing products which can be easily repaired, upgraded or refurbished, the circular economy also enables companies to extend material lifecycles and capture greater value from embodied energy. Emphasising good design from the start enables companies to focus more on quality of service and adapting to new trends, as opposed to dealing with waste compliance and resource constraints. Caterpillar<sup>20</sup> and Timberland<sup>21</sup> are looking into ways to design their products for disassembly, where products can easily be taken apart to be reused or recovered at the end of their useful life. Modular design of products, such as Google's new modular phone is also an innovative way to remain flexible and agile to consumer's tastes and preferences, reusing old product components in new editions.<sup>22</sup>

## BOX 4. BUSINESS MODELS

The circular economy asks companies to think of which business model strategies would enable the most resource effective and resilient model. Is it about **reducing the quantity** of capital needed to maintain the same delivery of a service? Is it about **lengthening the usability** of products, beyond its existing lifecycle? Is it about **substituting** hazardous and difficult to reuse materials? Is it **creating secondary markets** and shared platforms for raw materials, where industries can make use of another industry's by-products? Is it about educating and **challenging consumer behaviour**? All of the above questions take varying degrees of relevance depending on your company's structural organisation and industry sector.

<sup>16</sup> *Opportunities in the circular economy- your essential guide*, Innovate UK: Technology Strategy Board, 18 July 2014

<sup>17</sup> Nitesh Magdani, 'Starting with the end', UK Green Building Council, 16 January 2014

<sup>18</sup> 'How Phillips is transforming its business model for sustainability', The Guardian Sustainable Business

<sup>19</sup> <http://riversimple.com/>

<sup>20</sup> <http://www.caterpillar.com/en/company/sustainability/remanufacturing.html>

<sup>21</sup> <http://responsibility.timberland.com/wp-content/uploads/report-builder/singles/cradle-to-cradle-is-coming.pdf>

<sup>22</sup> <http://www.projectara.com/>

### 2.3 Resource redistribution models

Companies around the world such as Attero, ReTech and the National Industrial Symbiosis Platform, are leading the way for material reuse platform services and creating new markets for the flow of waste and resources. When it comes to re-purposing waste material, much of the expertise will lay at the hand of waste management companies- who in the circular economy will become resource management companies. The growth of these secondary material markets have been heavily assisted by digital technologies - enabling smarter tracking, tracing and aggregation of by-products. Companies can use such platforms as a way to valorise their waste materials or source alternative and more effective materials at the manufacturing stage or end of life stage.

**CASE STUDY:** Attero, is India's largest e-waste management company and a NASA-recognised technology innovator. They have patented a disruptive technology, and are one of seven companies in the world with the capability to extract pure metals and rare earths from e-waste in an eco-friendly manner. Through its e-waste take-back programme, Attero is trying to formalise the recycling sector in India through consumer training and awareness events. Attero has also developed low cost, ground breaking technology for the maximum resource recovery and disposal of e-waste in a highly eco-efficient and responsible manner. Attero believe this offers a viable solution to tackle e-waste issues, particularly in emerging economies.<sup>23</sup>

### 3 ENHANCING STAKEHOLDER RELATIONSHIPS

Many of the principles behind the circular economy would also provide additional value in terms of trust and brand image. By becoming more resource effective, companies display themselves as a responsible business that cares about the markets in which they serve. Thinking more systemically about circular strategy can also help to create impact beyond the value chain, which can secure social licence to operate. It is these types of companies, working to live within the constraints of the world's resources and developing cutting edge business models, that lead to a more restorative economy, who will ultimately stay winning.

### 3.1 The emerging billion

Rapid population and economic growth means that many changes in consumer behaviour will emerge from the developing world in the near term future. It is the way businesses deliver the consumption choices of the next three billion that will determine much of how resources are sustained.

In order for western companies to access and serve these markets competitively, it will be important for businesses to adapt their product/service innovations to be more culturally specific. Companies will also need to prove that they understand the relationship between local and global resource issues and proactively work towards being resource effective. Many of these solutions will come through forming collaborations with local stakeholders who have the knowledge and market insights to develop long term solutions. Through circular thinking, companies should embrace new stakeholders and unconventional relationships, which may need to be formed to tackle systemic complexities involved in emerging economies. This will lead to trust, credibility and access to new opportunities, whilst being positioned as a responsible business.

**CASE STUDY:** Unilever launched its sustainable living plan in 2010: it aims to decouple growth from environmental impact. A key part of this strategy is tackling waste and packaging. In developing and emerging markets, millions of Unilever products are sold in smaller, single use sachets which make their brands affordable and accessible to people on low incomes. Many of these markets lack recycling and disposal infrastructures, so the informal disposal of sachets can cause environmental damage. Unilever is tackling this issue in two ways. It is working to improve the design of the sachets so that it requires less use of material or has less environmental impact. Secondly, it is exploring economic models which create incentives to collect and reuse waste packaging. Unilever is currently creating value from waste in Indonesia through its' Community Waste Bank Programme. Individuals can collect waste and deposit it at a waste bank for cash returns. In 2013, there were 712 community waste bank initiatives, with around 36,000 members.<sup>24</sup>

<sup>23</sup> <http://www.attero.in/>

<sup>24</sup> <http://www.unilever.com/sustainable-living-2014/reducing-environmental-impact/waste-and-packaging/tackling-sachet-waste/>

### 3.2 Creating net positive impacts

Leading companies are using circular economy principles, to develop ways they can realise a net positive impact; the idea that a company gives back more than it takes from society. Not only does this have a direct benefit on the company's value chain in terms of cost savings, growth and resilience, but it can enhance stakeholder relationships by proving their value add to wider society. IKEA's people and planet positive strategy creates more forests than is cut down for wood for its products, and it will eventually generate more renewable energy than it needs to power its own operations, creating a net benefit to society.<sup>25</sup> BT's Net Good goal aims to help its customers reduce carbon emissions by at least three times its total carbon impact through developing smarter, more effective products and services.<sup>26</sup>

**CASE STUDY:** Interface is the world's biggest modular carpet manufacturer, founded in 1973 and based in Atlanta, Georgia. In 2012, Interface teamed up with ZSL to develop the Net-Works programme, a business solution working to develop long term positive impacts on marine and freshwater ecosystems, and providing income opportunities to some of the world's poorest people at the same time. Net-Works incentivises fishing communities not to discard old fishing nets by enabling them to sell their nets back into the global supply chain. This is then recycled into materials which Interface use for carpet tile production. The initiative supports Interface's Mission Zero goal to source 100% recycled nylon, but also cleans up oceans and lakes, and lifts people out of poverty at the same time.<sup>27</sup>

## 4

### MITIGATING RISK FROM FUTURE POLICY AND INDUSTRY SHOCKS

Changes to economic instruments such as taxes, charges, permits and subsidies could have a significant impact on companies in terms of cost adjustments. These often involve abatement technology or a process innovation. Companies staying alert to regulatory changes are mitigating public policy shocks.

The European Union Commission recently released a communication advancing its support for the circular economy, by establishing a non-binding resource productivity target for member states – 'GDP relative to Raw Material Consumption'. There are a number of supportive measures the Commission is taking to help implement and encourage this target - such as resource stress tests for companies, green public procurement and funding for circular economy initiatives.<sup>28</sup> Periphery policies such as the EU waste framework directive (Directive 2008/98/EC) and Eco design directive (Directive 2009/125/EC) similarly follow circular principles. The roll-out of global policies collectively signals to industry that policy is rapidly shifting.

Industry platforms such as the Better Cotton Initiative, Pharmaceutical Supply Chain Initiative, Electronic Industry Citizenship Coalition and the Sustainability Consortium are examples of how leading companies are proactively lobbying for better standards and policies based upon circular principles. Using lifecycle approaches, these platforms are highlighting supply chain hotspots which display risks faced by the entire industry. Stakeholder pressure being placed on companies to become more transparent in their reporting disclosure means it will be difficult to hide behind short term solutions.

The financial industry is also heading towards a tipping point- as investors and insurers are increasingly considering ESG (environmental, social, and governance) factors into their investment decision making. Goldman Sachs' GS Sustain, a long-term investment framework focussed on sustainable industry leaders, has outperformed the MSCI All Country World Index by over 43% since its inception in June 2007.<sup>29</sup> Applying circular thinking will help companies hedge against volatile and expensive commodities and improve their environmental resilience - whilst maintaining investment capital.

<sup>24</sup> <http://www.unilever.com/sustainable-living-2014/reducing-environmental-impact/waste-and-packaging/tackling-sachet-waste/>

<sup>25</sup> [http://www.ikea.com/ms/en\\_GB/about\\_ikea/people\\_and\\_planet/energy-and-resource.html](http://www.ikea.com/ms/en_GB/about_ikea/people_and_planet/energy-and-resource.html)

<sup>26</sup> <http://www.btplc.com/Betterfuture/NetGood/OurNetGoodgoal/index.htm>

<sup>27</sup> <http://net-works.com/>

<sup>28</sup> *Towards a circular economy: A zero waste programme for Europe*, European Commission, 2 July 2014

<sup>29</sup> <http://www.goldmansachs.com/citizenship/environmental-stewardship-and-sustainability/environmental-markets/global-investment-research.html>

# Conclusion

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As global resource challenges intensify, companies are increasingly questioning the efficacies of traditional industrial models- those of 'take, make, waste and dispose'. Changing global megatrends point towards the opportunity for a new economy, the circular economy, to be built based on principles of resource effectiveness and industrial solutions which are regenerative by design.

The circular economy concept is not just a waste or environmental strategy; it integrates many concepts to provide a solid business strategy, linking past related concepts to an emerging context. New consumer preferences, promising developments in materials and design technology and breakthrough ICT services have driven leading companies to re-orient their value chain and adopt models which optimise resource use, capital and labour. Applied successfully, circular economy

principles can be a source of competitive advantage in a radically changing world. Many leaders in this field are smaller companies which may quickly become the defining companies of tomorrow. For larger companies, the more resource intensive the value chain currently is- the greater the opportunity, or risk.

The following two acute forces place pressure for companies to consider their sustainable growth strategy: changing societal needs and the proven limits to growth of the linear industry. We believe that dealing with these pressures is not just the task of sustainability professionals; it will require visionaries and creative minds from across the entire business. It calls for a heightened sense of purpose, and a systemic review of the way we treat the world's resources. If adopted seriously, the circular economy can unlock transformational value- for business and beyond.

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# Practical guidance on moving towards the circular economy

## 1

### Looking at the bigger picture

#### Revisit your purpose.

Take a step back and think about what it is your company stands for. What are the values and ethics that act as the core organising principle of your company? Now think about ways in which you could continue to deliver that same ambition using models based on circular economy principles.

#### Get the C-suite and key members of management on board.

Convince key decision makers within the business of the opportunity at hand. This should include managers from across business divisions– notably procurement, finance, sustainability, health and safety and marketing. Arm yourself with the business case and strategy for circular economy, in terms of cost savings, growth and innovation.

## 2

### Looking inside your company

#### Conduct a supply chain review.

Research and collect data on your supply chain in more depth. Understand who feeds into it, from where and at what scale. Understand which proportion of your supply chain is most reliant on critical suppliers and collect data on their material footprint. This will enable you to identify which suppliers could help to clean out unhelpful materials from your value chain.

#### Conduct lifecycle analysis.

Understand where materials and products are currently being collected along the value chain, or are subject to losing the most material value over their lifetime. Work with your waste management and third party firms to seek out opportunities to redesign product composites, recapture and valorise waste or sell it on.

#### Rethink your employment and skills development strategy.

Hire people based on skills for the future which will provide the expertise and innovation necessary for your business to remain agile and competitive, through transient environments. Up-skill your existing staff by conducting circular economy workshops and developing training materials which enable them to understand the importance of new technologies, business models and operational value adds.

#### Change expectations via good communication.

Develop a clear communication strategy for your company's stakeholders. This will help to manage investment/payback expectations as well as create the supportive environment for innovation and change.

## 3

### Looking outside your company

#### Stay on top through horizon scanning.

Conduct a futures exercise on your industry to understand more broadly where it is heading in light of global shifts. This will also help you understand the relevance of changing consumption and societal patterns, disruptive market players, the digital age, policies and regulation- and how circular economy principles can be used to inform future strategy.

#### Conduct a stakeholder engagement exercise.

Understand what aspects of your company is most material to your stakeholders. What are their key priorities and how can you use this to inform circular strategies?

#### Seek external opportunities.

Stay on top of industry changes as there might be an opportunity to form interesting partnerships outside of your normal scope. External parties are also useful to provide fresh perspectives, as well as innovate.

#### Benchmark yourself against key peers.

Benchmark your current strategy against other companies in your sector or leading companies you admire- to see what choices they are making in terms of the circular economy. Use this to strengthen your business case and make improvements.

**For information about how Corporate Citizenship can help you with the above guidance, please contact [mail@corporate-citizenship.com](mailto:mail@corporate-citizenship.com)**



## About the Author

Arpita Raksit is a Consultant at Corporate Citizenship and focuses on delivering environmental and supply chain services for clients. Prior to joining Corporate Citizenship, she completed her MSc in Environmental Technology at Imperial College London, specialising in Business and the Environment. She wrote her thesis on the circular economy, exploring options to scale up the reuse of by-product

manufacturing waste. This was in collaboration with the Ellen MacArthur Foundation where she also contributed to a policy paper making the case for Wales to move towards a more sustainable, circular economy. She has a background in the financial services sector, having worked in the City of London as a performance analyst for over four years and holds an Investment Management Certificate.

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Corporate Citizenship is a global business consultancy that uses clear insight and a simplified approach to sustainability to deliver growth and long-term value for business and society. We work globally across industry sectors. Our work spans Europe, USA, Asia, Africa and Latin America. We help our clients make the smart choices that will enable them to survive and thrive in an increasingly challenging business environment. Corporate Citizenship promotes the idea that

companies can be a force for good. We advise global client list on a number of areas: strategy, reporting, supply chain, socio-economic impacts, inclusive business models and assurance. Our long standing clients include Unilever, Shell, Abbott and Vodafone.

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