



Rathbone Greenbank Review

The circular economy

Protect and restore the
natural environment

22nd Annual Investor Day 2019

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WRAP

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Rathbones
Look forward

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Welcome to the Investor Day 2019 edition of the Rathbone Greenbank Review

At our event this year, on the theme of the 'circular economy', our expert speakers offered their insight into the scale of the problem represented by the current 'take, make, dispose' economic model, while sharing their thoughts on how a shift away from a linear economy is possible.

We are witnessing a step change in public attitudes towards sustainability and the environment. There is a growing awareness of the need for us all to take personal responsibility for the preservation of our world, and of the urgency with which we must act.

Blue Planet provided a stark reminder of the environmental damage caused by our reliance on single-use plastics. And a 16-year-old Swedish schoolgirl – Greta Thunberg – inspired a global movement of climate protests and reminded us all that it is not just for us, but for our children and grandchildren, that we need to take action.

At times it can feel overwhelming, as we are inundated with information on climate change, waste and pollution, unsustainable food systems and a loss of biodiversity that threatens the collapse of entire global ecosystems.

These problems are interwoven in a way that means solutions are very complex. But, tempting though it may sometimes be, we can't afford to bury our heads in the sand and fail to act.

As a global society, perhaps we have done too little for too long. Even in the mainstream media we were forewarned of the threat of climate change as long ago as 1956 when an article appeared in *The New York Times* warning that "accumulating greenhouse gas emissions from energy production would lead to long-lasting environmental change".

In addition, threats to biodiversity were highlighted by Norman Myers, an English ecologist and environmentalist, in his 1979 book *The Sinking Ark: A New Look at the Problem of Disappearing Species*. While the theme of evolution and extinction was of course familiar to ecologists, Myers drew attention to its relationship with habitat destruction around the planet, especially the devastation of tropical forests.

Kenneth Boulding, President Kennedy's environmental adviser over 50 years ago, summed the problem up succinctly when he said, "Anyone who believes in indefinite growth in anything physical, on a physically finite planet, is either mad – or an economist."



Our speakers encouraged us to think more carefully about how we can preserve the value of materials and natural assets by 'closing the loop' on resource consumption, setting out what a circular economy might look like.

It is encouraging that it is no longer just the campaigning few who are demanding change. We have reached a tipping point in which consumers, business leaders and governments are more aware of the need to work together to create a more sustainable future. We now just need to get on and make that change.

Rathbone Greenbank continues to build on over 20 years' experience in managing investments in a way that plays an active part in creating a more sustainable world. We do not simply avoid investment in companies causing harm: we also seek out investments that create positive social and environmental impacts, and we are proactive in encouraging improved corporate behaviour through our stewardship and engagement activities.

As a society, our challenge in the 21st century is to adjust our economic model to one that is sustainable for people and planet. As consumers, voters and investors we can all play a role in this evolution.

John David

Head of Rathbone Greenbank Investments

Interviews with the speakers will be available on our website:
rathbonegreenbank.com/investor-day-2019



Julie Hill

WRAP

Julie has been chair of WRAP since November 2014. She has been involved in developing policy on the theme of waste and resources for over 20 years, during which time she chaired the Green Alliance's Circular Economy Task Force. She has served as a non-executive director of the Environment Agency for England and Wales, and of the Eden Project in Cornwall. Julie is also a visiting professor at the University of Surrey and vice-chair of the Institution of Environmental Sciences.

In 2015, the Waste & Resources Action Programme (WRAP) launched an ambitious five-year action plan – *Resource Revolution: Creating the Future* – aimed at helping businesses, organisations and individuals to challenge the 'business as usual' approach to consumption and reinvent, rethink and redefine the use of raw materials.

“WRAP is a not-for-profit charity working with governments, businesses and communities to accelerate towards a more sustainable, resource-efficient economy. With partners in multiple sectors across 20 countries, WRAP utilises data and evidence to deliver groundbreaking initiatives in resource management and waste reduction. Campaigns, such as *Love Your Clothes* and *Love Food Hate Waste*, aim to increase public awareness of the long-term value of commodities and change key individual and institutional behaviours contributing to unnecessary waste.

Waste needs to be designed out of economic models because it ultimately represents loss of value, environmental quality and opportunity.

WRAP's vision is a world in which resources are used sustainably. Waste needs to be designed out of economic models because it ultimately represents loss of value, environmental quality and opportunity. Designer and WRAP trustee Sophie Thomas has described the linear take-make-dispose

system of production as a design flaw. Evidence of this was apparent when WRAP mapped UK material flows – one of the first attempts to do this in the world – and showed that very little of the material brought into the economy was recycled after one use, and the transition from use to disposal in most cases was very quick.

WRAP has therefore joined discussions with organisations like the Ellen MacArthur Foundation who have been key in promoting the concept and principles of the circular economy. Through these discussions, a simple framework was developed to help design out waste and encourage a more circular method to systems thinking; reduce the consumption of resources, increase the reuse and recycling of goods, and reduce waste.

By using fewer resources to make goods, and designing them to be recovered and repurposed, we can maximise their economic value while minimising the negative impacts of production and disposal. The reduction in consumption could be felt most keenly in ecological terms where we're extending beyond the planet's risk boundaries for climate change, biodiversity loss, land conversion and rapid agricultural expansion.



If we continue to live in ecological overdraft, these environmental risks will inevitably translate into financial and social risks.

Consequently, there are huge opportunities in reinventing design, rethinking consumption and redefining reuse and recycling. At WRAP, the focus of circular thinking is on food waste, textiles and clothing, plastic packaging and overall resource recovery. The energy expended by food production and waste makes it the third largest emitter of greenhouse gases behind the US and China. Textiles and clothing exemplify the rapid transition of materials to waste and plastic packaging has been the focal point of a recent surge in public interest in the consequences of overconsumption and disposability.

New business models are emerging to encourage a more circular mindset. These models rely less on material inputs and focus more on providing services to extend product life and maximise value. Leasing schemes for clothes, for example, help preserve the quality and increase the utility of high-end garments that may only be worn once, or children's clothes that the wearers quickly grow out of. Transport hiring schemes like Zipcar enable users to rent vehicles by the hour, relieving the pressure on consumers to own expensive items they may rarely use. Peer-to-peer sharing platforms provide access to products and tools for single and short-term use. These emerging models need support to grow and evolve towards better designed, more durable products.

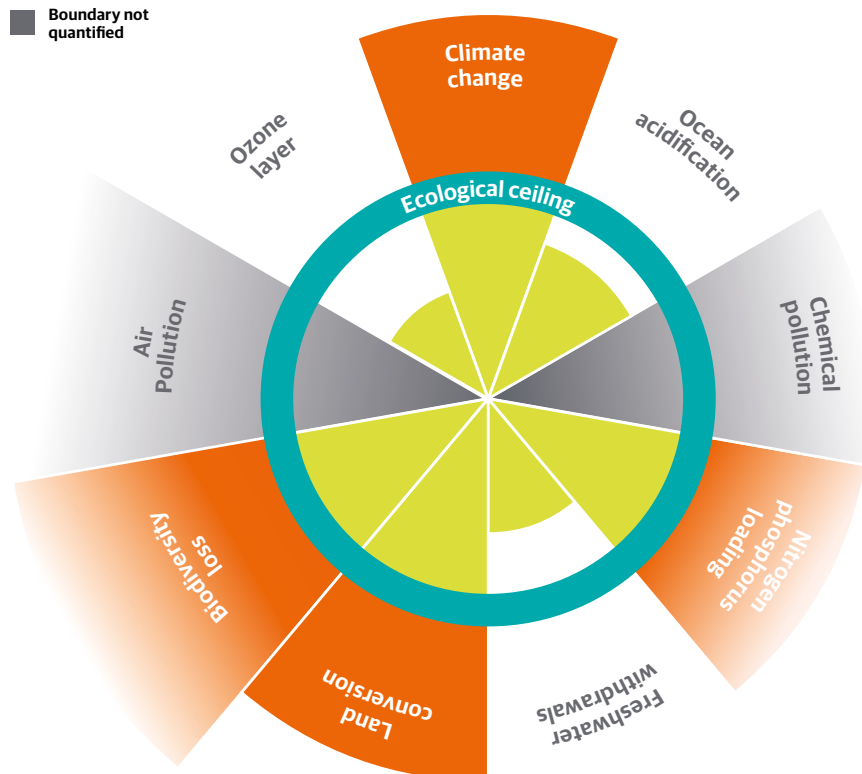
Another key element of the circular economy is the development of infrastructure to improve the recovery and repurposing of secondary materials. Mixed plastic is a prime example of where infrastructure investment could be directed to increase recovery rates and end the unsustainable international export of mixed material waste.

Equally important is the enhancement of the environmental, social and governance (ESG) agenda to factor in the risks and growth opportunities of the circular economy. For example, the electronic devices we're so reliant on contain rare metals mined in countries vulnerable to extremes of environmental, economic and social risk. Why would we discard our devices without recovering these rare elements and risk perpetuating harmful production methods or exposing ourselves to regional volatility? Recent political tensions between the US and China have also shown that the flow of raw materials can be threatened and increase that volatility.

Planetary boundaries

- Within the boundary
- Beyond the boundary
- Boundary not quantified

In 2009, the Stockholm Resilience Centre identified nine critical processes that regulate the stability and resilience of Earth's environmental systems. The 'ecological ceiling' represents the safe operating space for humanity. Overshooting this boundary increases the likelihood of large-scale, irreversible environmental changes for current and future generations.



Source:
Rockstrom et al Stockholm Resilience Centre

Few of us buy our clothing with any real sense of where it comes from, the conditions it was produced in or where it finally ends up.

We also need greater transparency and accountability regarding the acquisition and movement of all materials through supply chains. Few of us buy our clothing, for instance, with any real sense of where it comes from, the conditions it was produced in or where it finally ends up. If we had more knowledge, we could make more informed consumer choices and better understand how to direct our investment capital.

Increasing consumer demand for alternatives to the linear economy should encourage businesses to look beyond the difficulties they see in transitioning to more circular models, but we need to be patient. Cultures will take time to change. We need to relieve pressure on quick returns, explore different ways to de-risk new approaches and reconsider the price and long-term value of virgin materials. We need to design a system that relies less on physical resources, offers greater service capabilities and takes responsibility for what it produces throughout its life cycle.”



Mickey Howard

University of Exeter

Mickey Howard is Professor of Supply Management at the University of Exeter Business School. His research explores the circular economy and sustainable supply chain management, supported by engagement with organisations such as the Ellen MacArthur Foundation and numerous small or medium-sized enterprises in the south-west of England. He is a member of the Exeter Centre for Circular Economy and a regular speaker at UK government events at Westminster and international conferences such as the Academy of Management in the US.



“ In 2016, the University of Exeter and the Engineering and Physical Sciences Research Council (EPSRC) began a two-year project studying food production methods in south-west England. Focusing on nine small and medium-scale producers, the project looked at the current state of resource use within their operations and assessed how the circular economy might eliminate waste and recapture material value as part of a regenerative approach to restoring the natural ecosystem.

Led by a team of University of Exeter researchers in Devon and Cornwall, the project we undertook with the EPSRC focused on the agri-food sector. This meant targeting small and medium-scale dairy and baking enterprises, as well as some local farm-based operations making products such as ice cream onsite. We looked to establish how effectively circular economic principles could be applied and how each business might benefit from market opportunities, given their limited resources. We also hoped to gain a clearer perspective on how transformative the circular economy could be with respect to waste elimination, recapturing the value of water, energy and nutrients and overall business resilience.



Team from University of Exeter Business School at special event (Can the Circular Economy Save Britain's Food and Farming Industry?) with selected MPs at Westminster in 2018.

Left to right:

Dr Lydia Vamvakieridou-Lyroudia
 Prof Nav Mustafee
 Prof Matt Lobley
 Dan Eatherley
 Prof Steffen Boehm (Pi)
 Phil Ugalde (project partner)
 Prof Mickey Howard

The circular economy is a vision of a restorative and regenerative system by design, producing no waste or pollution.

The circular economy is a vision of a restorative and regenerative system by design, producing no waste or pollution. Our study drew inspiration from the Ellen MacArthur Foundation's 'butterfly' diagram – a visual representation of how organic and technical materials used in manufacturing are separated to re-enter the biosphere safely or circulate back into the production system. The appeal of a regenerative system achieving 'clean growth' is gaining traction among consumers and business leaders, who are learning the environmental and operational cost of traditional linear material flows. Resource productivity would improve in a circular system, which could result in a net benefit of €1.8 trillion across Europe by 2030. We believe companies factoring eco-efficiency and material recycling into their core business operations will benefit from what we at Exeter term 'circular business advantage'.

We drew on a considerable pool of expertise and business leadership in the south-west of England, constructing value stream maps to understand the ways in which materials, water and energy flow through complex manufacturing systems, and simulating future circular scenarios. For example, one of our earliest value stream maps for dairy production identified where there was excess

water waste and recoverable losses in energy and materials. Our real-time simulation at one of the UK's biggest pastry makers looked at the impact of increased production on utility usage and material waste to visualise the optimum level of operation.

While there are examples of good circular practice in our target region, the current state of material flows is still broadly linear. Where they do exist, material return loops are often isolated and rather ad hoc. This is because, in the past, recycling processes have generally been seen as not core to business operations, so significant material value is being lost. An ideal future situation is therefore one where businesses would separate biological and technical materials as a core process.

The implementation of circular economic principles could enable businesses to become more resilient in the face of rising raw material costs or unforeseen shocks and shortages.

They would also work to a 'double loop' design of material recovery and reuse: a closed-loop system within the business itself, and an open-loop recovery plan involving collaboration across wider supply chains. This would undoubtedly improve efficiency and reduce waste. More importantly, it would enable businesses to recapture the value lost from material and other types of flows.

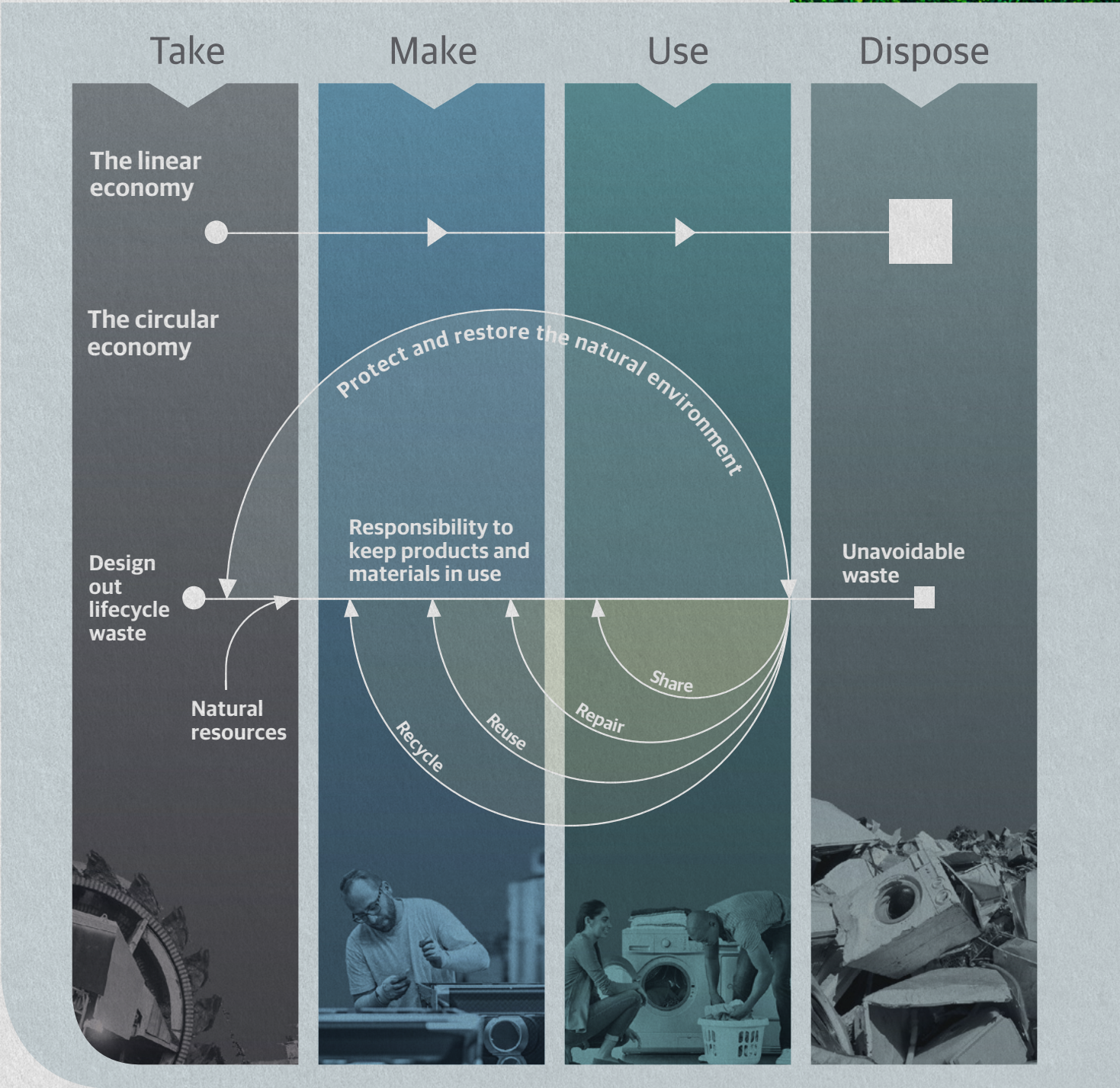
Encouragingly, we saw evidence of this across our dairy and baking enterprises: surplus pastry flowing back into food production; the separation of water from production solids for treatment and reuse; solids sold on as fertilisers to local farmers or turned into energy sources for onsite use or external sale. The implementation of circular economic principles could enable businesses to become more resilient in the face of rising raw material costs or unforeseen shocks and shortages – the drought we experienced in south-west England last year highlighted the risk to regional businesses of reduced water access. With this in mind, we began to see that circular economic principles needed to be shared with a wider audience of suppliers, consumers and policymakers as part of a system-wide approach.

To help communicate the potential benefits, we have developed a simple four-step model to demonstrate how businesses could progress from a predominantly linear production system to circular economy 'maturity'. Our primary aim was to emphasise the restoration of value to the entire system – businesses, supply chains, stakeholders, governance and the wider environment – and how that, coupled with waste elimination, could lead to a future of clean growth.

Despite the relatively narrow focus of our project in one region of the UK, we believe that businesses of all sizes in all sectors can benefit from the growth prospects and increased long-term resilience that the circular economy offers. While companies might worry about the cost and pace of implementation, there are significant opportunities for knowledge sharing and the establishment of new markets. This is the message we're passing on to industry leaders and policymakers going forward. ”



Closing the loop



Kate Elliot

Rathbone Greenbank

Our approach to the circular economy



We look at the circular economy in the same way as any other sustainability issue: we assess risks and opportunities; exclude worst practices; include solutions to the challenge; and engage to create positive change. In this way, we try to ensure that our clients' portfolios are not just avoiding harm, but are also creating benefits for people and the planet, and playing an active role in pushing for positive change in the world.

Assess

The circular economy is relevant to every company, no matter what their size or industry. This makes it easy in some ways, as we can select common issues (for example, product stewardship or environmental technology) and build these into our assessment.

But it can also make it challenging, as good practice will look very different for different industries. Unlike greenhouse gas emissions, there isn't an easily comparable measure of 'circularity'. It's therefore an issue which we look at through a qualitative lens – gaining an understanding of each company's level of commitment and how this influences business practices or product and service design.

Exclude

Because the circular economy doesn't have universal, clearly defined measures of good or bad practice, it's not something that we include among the avoidance criteria in our ethical questionnaire.

Instead, it forms part of our overall environmental, social and governance (ESG) assessment, influencing our decision as to whether or not a company is suitable for inclusion in our investment universe. For example, if we are comparing two electronics companies, we would favour the one which is phasing out hazardous chemicals, or which designs products that are easy to repair and upgrade.

Include

The circular economy is just one of the factors in our assessment of companies' positive environmental performance. Within our sustainability themes framework, we see it as a key solution to resource scarcity, not to mention helping to tackle other challenges such as climate change, food security and habitat preservation.

Companies can support the circular economy either through their products and services or the way they operate. For example, some retailers have committed to 'whole crop purchasing' – taking the parts of a crop which may not meet specifications for fresh produce and incorporating them into processed product lines.

Engagement

We believe a key part of our role as responsible investors is to represent the views of our clients and encourage better corporate practices.

We've raised the circular economy in meetings with companies over many years and have also supported collaborative engagement projects focused on plastics.

We are encouraging standards-setting bodies to tighten rules on the management of nurdles – the small pellets used to transport pre-production plastic and which are all too easy to spill. And we've endorsed the New Plastics Economy Global Commitment, encouraging makers or users of packaging to phase out unnecessary plastic and ensure that any plastic used is actually (rather than just theoretically) recyclable at end of life.



Alex Manisty

DS Smith Plc

Alex is head of strategy at DS Smith Plc, a multinational packaging group with a turnover of around £7 billion. Before joining DS Smith in 1999, he worked at KPMG and ICI in various financial and strategic roles. Alex is responsible for the group's corporate planning, scenario planning, disruptive innovation and a wide variety of other development projects.

DS Smith is a FTSE 100 company specialising in the manufacture of customer-specific packaging and speciality papers in Europe and North America. Focusing on sustainable solutions for a changing world, the company has designed its supply cycle to keep its raw materials in a continuous loop of production, recovery and reuse.

“Exciting changes and innovations in global fast-moving consumer goods markets are presenting new challenges to the packaging industries that support them. The recent spotlight on low material recycling rates and high levels of plastic pollution have galvanised worldwide public demand for companies to operate more sustainably and eliminate material waste.

For DS Smith, responding to this demand is critical to its business performance. These days, more conscious consumers expect companies to demonstrate strong values and deliver meaningful societal impact. Increased awareness of the linear stream of material extraction, use and disposal has made the circular economy a dominant theme among those seeking systemic change.



Replacing plastic punnets for fruit and vegetables with paper-based alternatives

Photo:
John Nguyen/PA Wire



Material waste has a crippling effect on returns in the markets in which the group operates, but a more circular and sustainable system requires some key design elements, namely: product design for quality primary and secondary use; systems design for the continuous circulation of resources; and environmental design for resources to regenerate natural systems.

A significant barrier to change is the fact that linearity has been embedded systemically

1.5 million tonnes of plastic could be replaced each year from just five areas within supermarkets across Europe



Plastic display trays

Fresh produce punnets

Shrink wrap

Ready meals

Meat, fish and cheese



since the Industrial Revolution. DS Smith, however, has always regarded its business model as circular – recycling is essential to its effectiveness for retail, e-commerce and individual customers. As a global partner of the Ellen MacArthur Foundation, its aim is to redefine packaging for a changing world and lead the market in sustainable solutions.

A significant barrier to change is the fact that linearity has been embedded systemically since the Industrial Revolution.

To that end, DS Smith has optimised its processes to produce boxes for customers, recover them after use and generate new boxes from recycled materials within 14 days. Once recycled paper fibres have been separated from contaminants, its largest paper mill can process up to 3,000 tonnes of cardboard a day, generating huge new reels of packaging material to size and brand for its customers. This cycle continues daily, but it relies on high-quality design and collection systems. Produced and recovered correctly, a paper fibre can be recycled up to 25 times – representing a massive saving in material value.

Customer surveys indicate that more people are prepared to pay a little extra for sustainable solutions, so the group is investing millions in patented technologies to reduce resource consumption and waste, making high-quality boxes with less paper than its competitors. Several hundred designers are working on solutions to explore new potential for cardboard, eliminate wasted packaging space and reduce retailer and direct customer logistics costs.

E-commerce is one area where the complexities of an online supply chain mean that products are often boxed in oversized packaging. Companies are paying to store and transport a lot of void space and the situation isn't sustainable. DS Smith has therefore developed its Made2fit solution for e-commerce, comprising a manual solution offering 26 different box size options from just two standard packs and an automated solution matching individual online orders to a perfectly sized box. Reducing box sizes is a key cost-saving priority for global e-commerce companies – in the US, for example, logistics firms now charge by volume rather than weight.

Then there's the issue of finding alternatives to plastics. Very little of the plastic packaging produced in Europe is reused and only around 40% is collected for recycling. A report published in May in partnership with White Space Strategy found that 1.5 million tonnes

of plastic could be replaced each year from just five areas of supermarket packaging across Europe. Replacing plastic punnets for fruit and vegetables with paper-based alternatives alone represents an annual £2 billion market opportunity for the fibre-based packaging industry.

While DS Smith doesn't make disposable coffee cups, it's investing in the capability to recycle the 2.5 billion single-use cups used each year in the UK. A collection trial with offices and businesses in London is currently being run to see if it can develop an effective returns infrastructure. Food and mixed material contamination are often the biggest impediments to recycling, so the trial is also being used to raise awareness and help change consumer habits. In addition, the rapid rise in e-commerce means that much of the cardboard that could be recycled ends up in people's homes, so it's working to improve recovery rates there too.

There are real opportunities now for companies to engage and align with the principles of the circular economy. Industry, the government and the public all agree on the need to cooperate and find solutions. DS Smith has an established recycling infrastructure and is already making products made with 88% recycled content; it's therefore in a perfect position to benefit from and promote more circular business models. ”



Sophie Mather

biov8tion Ltd

Sophie is a material futurist and founder of biov8tion. She has over 20 years of knowledge and innovative thinking looking at the challenges facing the textile industry. Her hands-on experience at the brand, manufacturing and consulting level in Europe, Asia and the US enables her to advise the industry on cutting-edge sustainability strategies and solutions. Sophie has held an advisory board seat for the Textile Exchange, formed and led the Textile Exchange Bio Synthetics working group, and most recently founded the Microfibre Consortium.

The biov8tion team works across the clothing industry to drive and facilitate change for a positive, regenerative future. Inspired by renewable systems in nature, they apply a circular mindset to their recommendations to ensure that serviceable life and value is maximised in textile use and clothing manufacture.





I established biov8tion after years of working to develop innovative fabrics for Nike. Working and living in Asia, I had first-hand experience of the social and environmental impacts of mass manufacturing for fast-changing trends. I felt that innovation had to be more sustainable and created an independent company to help me carry that message forward more effectively than I could in a large corporation. Today, biov8tion supports businesses targeting sustainable change through thought partnerships, working groups and keynote speaking.

How can we better design garment construction and stitching to aid recycling? How might we reduce mixed materials?

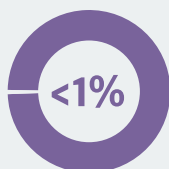
It's been said that over 80% of the environmental impact of a product is determined at the design stage. The Futurecraft Loop training shoe by Adidas, for example, is being made from the same polyurethane material throughout without using adhesives. The product can be easily recycled at the end of its life with little or no environmental impact. Wear2 is an award-winning thread technology that dissolves with microwaves to facilitate clothing disassembly for rebranding and resale. The suitability of recycled polyester as a garment fabric prompted Textile Exchange to encourage brands and retailers in 2017 to publicly commit to a 25% increase in their use of recycled polyester by 2020.

Published in May 2019, *The Future of Circular Fashion* assessed the financial viability of emerging rental, subscription-rental and recommerce (or reverse commerce) business models. While established brands and retailers have been cautious about adopting alternative models, disruptors are demonstrating how they can offer higher margins per garment. Dutch company MUD Jeans operates a 'Lease A Jeans' scheme enabling customers to rent a pair of jeans for a monthly fee. After 12 months, customers can choose to exchange old for new – worn out clothes are recycled into new products. This scheme has been running successfully since 2013. Outdoor clothing company Patagonia has embraced recommerce with its Worn Wear scheme, reclaiming used own-brand clothes and equipment to repair and remarket for secondary use.

I spend my life working five to eight years ahead of the industry. Regarding circularity in clothing, I see it advancing in three areas: fibre-to-fibre recycling, fashioning new clothes from existing materials; mono-material products, like the Futurecraft Loop shoe; and alternative business models reflecting the needs and aspirations of today's more conscious consumers. ”

“I've been working to promote a circular clothing industry for around 15 years. In that time, the industry has learned a great deal about circularity and recognised some fantastic commercial opportunities. But it shocks me to think that we still recycle less than 1% of our clothing and send over 70% of it to landfill; so much material is underutilised and so much value lost. The encouraging news, however, is that shopping habits are changing. Today's consumers are more open to innovations in sustainable design and product ownership. This is helping to inspire the collaboration and change necessary for the fashion industry to embrace a more regenerative system.

Less than 1% of clothing is recycled into new clothes



In the UK, £140 million worth of clothing goes to landfill every year



Every second one refuse truck of textiles is landfilled or incinerated



The importance of this work is reflected by the amount of clothing we consume and waste each year. Over 1.1 million tonnes are consumed annually in the UK alone and around £140 million of value is lost to landfill. In 2017, the Global Fashion Agenda sought signatories for its Circular Fashion System Commitment. This asked companies to implement circular design strategies, increase volumes of used clothing collection and sales, and increase the volume of new clothing made from pre-used textiles by 2020. By June 2018, 94 companies had become signatories, representing 12.5% of the global fashion industry. We'd like to see more companies commit to initiatives like this.

What we did with our clothing in the past could also help shape how we use it in the future. The year they were married, my grandfather bought my grandmother a copy of the *Pictorial Guide to Modern Home Needlecraft*. In it were practical tips on how to repurpose and redesign clothes to prolong utility or keep up with changing trends. Today we might call it a 'design for circularity', but we learned these skills years ago to survive on what we could afford and maximise the value in what we had. A little imaginative restyling could keep almost anything in circulation.

Design is critical to the success of the circular economy. Whatever industry they operate in, designers carry ideas forward. They visualise these ideas for others to better understand them and identify positive and negative outcomes through their approaches to design. How can we better design garment construction and stitching to aid recycling? How might we reduce mixed materials?

Questions and answers



If there's one thing we could do to promote circularity as individuals, what would it be?

- Lobby anyone you know in public service to improve recycling infrastructure to maximise the value of raw materials. Costs and difficulties in collecting and separating waste to scale have always been cited as barriers by companies and public bodies. If we're not prepared to invest up-front now, we're going to continue losing valuable resources.
- Consider the benefits of collaboration. We've seen different sectors establish knowledge hubs which have helped to thaw relations between competitors and foster a wider understanding and appreciation of best practice. We can achieve clean growth and still do business.
- Be a conscious consumer. Ask questions about what you're buying, where it comes from and where it'll end up. Put your questions directly to retailers because many are still telling us that consumers simply don't care enough for them to consider change.
- Use your purchasing power. Buy the things you think support the right conditions and demand greater effort wherever you feel those conditions can and should be improved. Channel your investment capital in the same way.





Could new business models and rental schemes be detrimental as well as beneficial to resource use?

We need to be aware of unintended consequences with any form of innovation and also to question whether new models help solve the problems of existing systems or simply entrench them further.

One of the key benefits of rental schemes is that the manufacturer is the one who ends up with products at the end of their life. That means they will be much more focused on knowing what goes into a product and how they can make it as easy as possible to recover and extract value from these materials.



But there are issues with badly designed rental schemes. For example, one clothing rental scheme highlighted never having to wash your clothes as a benefit, which raises a whole host of issues regarding consumer care and responsibility. Likewise, car rental schemes are good in principle, but if we're not prepared to give up our vehicles at home, the cycle of depreciation and waste will continue.

With deposit systems, these often seem irresistible because of their perceived value to consumers and a rather halcyon vision of increased recycling rates. However, care needs to be taken because high-value materials like plastic or glass currently help to cross-subsidise the collection and recycling of lower-value materials such as paper or card. If deposit schemes are allowed to focus purely on higher value materials, then we will need to carefully consider how to incentivise recycling of other materials to ensure there isn't a net increase in waste.



While the circular economy's promise of waste elimination and material reuse seems deflationary in nature, could the cost of design and support technology be more inflationary?

The circular economy as a growth model is appealing because we're not asking the world to do less, but rather to do more with less. The difference in thinking purely along sustainability lines is that the circular economy emphasises clean growth and value recovery - doing less harm but also reclaiming the prosperity we're currently wasting. It'll take time and investment, but if we close production loops and clean up processes, the supporting infrastructure we invest in will help bolster that growth with the value it saves.



Clockwise from the top:
Julie Hill, Alex Manisty,
Mickey Howard, Kate Elliot
and Sophie Mather

The transition to more circular practices will likely result in a major design and cost issue for businesses because of changing customer requirements and the rise of non-traditional retail models like e-commerce. There's also a much greater expectation of convenience and fast delivery among consumers. Meeting such a variety of needs quickly is hard work, but investment in new solutions is critical because we can't adapt old systems to meet the demands of the modern world. It's also important to remember that enhanced services designed to meet evolving needs will compensate for the costs they may incur.

Understanding economic pressures is important, but we shouldn't lose sight of the consequences of not working towards systemic change. Circular business models understand that resources are finite, recognise the need for more responsible use and don't regard economic growth and environmental wellbeing as separate concerns. The question of benefit versus cost won't matter much in a world that can no longer sustain us.

What are you doing to apply political pressure for legislative change?

Academics, businesses and civil society are all engaging with government on this issue. Coalitions like those built by the Ellen MacArthur Foundation also help to amplify support from the business community and bring wider perspectives to the debate.

Political advocacy can involve anything from broad support for policies that promote the circular economy through to education on the technical aspects of different industries to avoid the consequences of misinformed, reactive legislation. For example, measures in the US have focused on targeting polyester microfibres without considering the effects on the industry or the equally problematic environmental impacts of alternative fabrics.

The lack of urgency among politicians can, however, be frustrating as politicians tend not to act unless they feel they have a public and business mandate. We therefore all need to be doing more to make it clear to governments that there is a groundswell of corporate as well as public opinion in favour of the circular economy.

Contact us

Rathbone Greenbank Investments provides personalised and professional investment services for investors who wish to ensure that their investments take account of their environmental, social and ethical concerns.

For further information on the services that we provide, or to arrange a meeting, please contact us.

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