

Wealth matters

Foresight: Plastics – finding a better way

“There must be a better way to make the things we want, a way that doesn’t spoil the sky, or the rain or the land.”

PAUL MCCARTNEY

In recognition of Earth Day 2024: Planet v Plastics, this *Foresight* article takes a brief look at the escalating challenge of plastic pollution, along with some innovative investment solutions. Whilst the scale of the problem is daunting, progress is being made. Technologies are being proven and results are encouraging. Plastic alternatives are being created from natural sources such as seaweed or sugarcane waste materials. Enzymes are being supercharged to break down plastics and polyester without deteriorating quality, to be repurposed into items and clothing such as lululemon jackets. However, if the world is ever going to phase out new plastic production, a coordinated global effort is needed, with policy support. *This is just the beginning in reassessing how we make, use and value plastic.*

At Mutual Trust, we incorporate a ‘shared value’ investment management approach, whereby we are committed to sourcing investments which aim to generate attractive financial returns through seeking scalable solutions to global problems (such as plastics, waste and the circular economy). We offer a range of leading responsible investment opportunities across major asset classes, enabling innovative investment solutions to be incorporated within portfolios.

Since the 1970s, the rate of plastic production has grown faster than any other material. Single-use plastics are now an integral part of our daily lives. One million plastic bottles are purchased every minute worldwide. Up to five trillion plastic bags are used a year.

Globally, we produce about 400 million tonnes of plastic waste every year. However, only 9% of all the plastic waste ever generated globally has been recycled. The rest is burned, dumped, or lost somewhere in the environment. The ocean is now home to millions of tonnes of plastics, including microplastics. Estimates suggest there will be more plastic in the oceans than fish by 2050 (by weight). Immediate solutions are needed.

Awareness of the issue has grown significantly. Consumers are adjusting their behaviours and looking for business-led action to support their expectations. According to the Plastic Waste Makers Index 2021, just 100 companies globally contribute 90% of single-use plastic waste through their production (led by major petrochemical companies which produce the polymers for plastic production).

The world needs to find ways to enable corporates to phase down/out new plastic production through commitment, investment and action, reinforced by policy support and enticement throughout the entire supply chain. Aspiration and voluntary action has, so far, been fragmented and insufficient versus the scale of the problem.

In late April, governments globally will come together in Ottawa, Canada, for the fourth round of negotiations to establish a global treaty to end plastic pollution. The intent is to introduce new legally binding global rules to regulate the production and consumption of plastic. The aim is to complete negotiations at their final meeting in November/December 2024.

Any coordinated global effort will likely take years to be successfully implemented. In the meantime, improved solutions for bringing new life to existing plastic waste (reuse and recycling), along with developing plastic alternatives are underway:

A shift in focus across the supply chain to support recycling solutions

Surely there is a value for all the unwanted plastic in the world.

Developing more effective methods of recycling is needed – capacity is currently unable to scale quickly enough, and there is no cost or quality competitiveness versus new plastic (plastic quality is diminished each time it's recycled through traditional methods).

The failed REDcycle program was a focus for many Australian households who diligently took their soft plastics to drop off points for recycling. According to EastWaste, each Australian uses, on average, 3,000 pieces of soft plastics every year. The National Plastics Recycling Scheme is now being developed by Australia's food and grocery manufacturing industry – with the aim of taking used soft-plastics (curb-side collection is currently being trialled) and recycling them into new food-grade packaging.

Australian enviro-tech company, **Samsara Eco**, has developed a unique capability using super-enzymes to attack complex plastics, bringing them back to their original building blocks before making them into new plastics comprised of 100% recycled materials. This process enables the recycling of any type of plastic – PET, soft plastics, plastic fibres (e.g. polyester, nylon), *infinitely*, without diminishing quality. These new products can be resold to major companies eager to replace plastic in their supply chains with recycled materials to meet sustainability targets.

The largest end-user segment for recycled plastic is packaging, followed by construction and automotive industries. Other segments include textiles, industrial, agriculture and consumer goods. Interestingly, **Advanced Drainage Systems (ADS)** – a manufacturer of innovative water management solutions in the stormwater and onsite septic wastewater industries and listed on the New York Stock Exchange – has become North America's largest plastics recycler. ADS consumes over 200 thousand tonnes of scrap plastic per year (roughly half of its feedstock), which is turned into pellets before being used to make stormwater sewers and other water treatment products.

“You can't solve the climate crisis until you solve the plastics crisis and putting an end to fashion waste is critical. Over 90% of fashion waste is currently a one-way ticket to incineration or landfill. Our latest work with lululemon shows the potential to give clothes an infinite life and prevent textiles from ending up in landfills.”

PAUL RILEY, CEO & FOUNDER SAMBARA ECO.

Polyester (a thread made from plastic, woven into fabric), is the most widely used fibre worldwide, with over 63 million tonnes made each year.

Samsara Eco recently partnered with **lululemon** to use their enzymatic recycling process to create the limited-edition *Packable Anorak jacket* – a breakthrough in textile-to-textile recycling.



Source: lululemon

Innovative plastic alternatives and biodegradable solutions

Plastic offers many qualities, driving its prevalence in society. It's lightweight, durable, non-corrosive, strong, flexible and offers a moisture barrier. We are in the early stages of transitioning our reliance on plastics to alternative products in some areas – bamboo toothbrushes, paper straws and being charged for reusable bags at grocery stores.

Businesses are increasingly prioritising packaging as part of their net zero targets. **Smurfit Kappa**, listed on the London Stock Exchange, is a global leader in providing easily recycled cardboard alternatives to plastic – now creating everything from heavy-duty corrugated cardboard pallets, fruit punnets, customised boxes for goods, shrink fill alternative for bundled bottle packaging and even the transportation of bees!

Innovation in plastic technology is encouraging. There were 184,000 patents filed globally in 2021 related to plastic alternatives – three times the level in 2015, according to GovGrant. Since patent applications are often filed years before products or processes come to market, such data can be a good indicator of things to come.

Melbourne-based **Varden** is redesigning packaging using material from post-agricultural pulp waste – sugarcane residue, wheat straw, rice straw and other waste. This paper-like product, called Paperseal, offers high-performance with oxygen and water vapour barriers. The material, for products such as pharmaceutical blister packs and coffee pods, are fully compostable.



Perth-based start-up company Uluu has created a plastic-like natural material made from seaweed – it's durable, yet recyclable and compostable. Using a fermentation process similar to brewing beer, Uluu extracts sugars from seaweed farmed in Indonesia. Their moulding capability enables the production of rigid products such as consumer electronics, furniture and car interiors. A recent collaboration with Quiksilver opened-up the possibility of wider use of Uluu fabric for apparel, replacing polyester with the new Quiksilver Made Better boardshorts.

Whilst progress is being made and solutions are encouraging, there remains a long road ahead. Many innovations are very early-stage and still proving themselves, not yet scaled, nor cost effective versus new plastic. Lego's plans for bricks to be produced from recycled plastic bottles was recently abandoned, revealing that the additional production steps and investment into new equipment would produce more pollution than the status quo, and the bricks would not be as durable or safe (note: certain accessory items in Lego-sets will still incorporate a sustainable, sugarcane derived version of polyethylene). For Uluu, giant fermentation facilities are required and millions of tonnes of seaweed is needed to fulfill its growth ambitions.

Mutual Trust's shared value approach

'Plastics, waste, and the circular economy' is a major global challenge and we are still a long way from phasing out new plastic production.

At Mutual Trust, we recognise many families of wealth are passionate about making a difference beyond philanthropic endeavours. We therefore incorporate a 'shared value' investment management approach: we are committed to sourcing investments which aim to generate attractive financial returns through seeking scalable solutions to global problems (such as plastics, waste and the circular economy).

Many of the innovative solutions mentioned throughout this article are accessible through our range of responsible investment solutions, available across major asset classes – from early-stage venture capital opportunities to listed equities.

We recognise this is just the beginning in reassessing how we make, use and value plastic.

Please call or email your Mutual Trust Advisor for more details regarding Mutual Trust's range of responsible investment solutions, or for further details about our shared value approach.

Melbourne
Level 32
360 Collins Street
Melbourne VIC 3000
T +61 3 9605 9500

Sydney
Level 18
126 Phillip Street
Sydney NSW 2000
T +61 2 9224 7600

Perth
Ground Floor
22 Stirling Highway
Nedlands WA 6009
T +61 8 9230 7700

Adelaide
Level 2
28 Franklin Street
Adelaide SA 5000
T +61 8 7082 3900

info@mutualtrust.com.au
www.mutualtrust.com.au

Liability limited by a scheme approved under Professional Standards Legislation. For participating members (other than for the acts or omissions of Australian Financial Services Licensees). This information is general in nature and subject to change. It has been prepared without taking into account any particular person's financial situation or needs. It does not constitute, and should not be relied upon as personal financial product, taxation or legal advice. Before making any investment decision you should read the relevant product disclosure statement or other disclosure document and obtain personal financial, taxation and legal advice. For a copy of our Financial Services Guide, please visit our website at mutualtrust.com.au.

Prepared in Australia by Mutual Trust Pty Ltd (ACN 004 285 330) (AFSL 234590).

© 2024 Mutual Trust Pty Ltd.