



**SUSTAINABLE
INCLUSIVE** BUSINESS
THE KNOWLEDGE CENTRE KENYA



Single Use

Plastic Ban

Trend Report



Sustainable Inclusive Business Kenya



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The Kenyan single use plastic ban that will be in effect in all national parks , protected areas as of June 2020 is a logical next step in reducing the amount of unsustainably disposed plastics after the 2017 ban on throw away carrier bags. The new ban includes cutlery, straws, balloons, PET-bottles, cigarette butts, sweet wrappers and other products containing polymers that are harmful to the environment when not disposed of in a proper way. The ban aims to benefit public health, biodiversity, tourism, agriculture, among others.

With the bans on single use plastic and carrier bags, Kenya is among the first movers in a worldwide trend towards a cleaner and healthier environment, even though other countries are taking impactful steps in the same direction as well.

For the industry, the plastic ban is a challenging development. However, the restrictions on the use of plastics does not come as a surprise. There are at least three megatrends that were preceding this plastic ban.

Towards a circular economy

In a world with finite resources, economic growth can only be sustained if materials are used more than once. Preserving the value of materials is the aim of the circular economy. This requires new production and sourcing systems and new business models. The shift towards a circular economy offers great opportunities for innovative companies.

A revised view on the relationship between economy and nature

For a long time, nature was regarded as nothing more than a source of natural richness. Value was created by exploiting it, and converting raw materials into marketable products. Nowadays, it is recognized that nature is valuable at it own, and cannot be exploited ruthlessly without damaging both human wellbeing and the economy. Companies should therefore should adopt a more holistic approach in their relationship with nature. We, people, and thus businesses are all part of nature.

Dealing with externalities

Many economic activities cause unwanted side effects, like pollution, emissions or the depletion of resources. For a long time, these externalities remained unaccounted for and the damage they caused was not paid for by the polluter. This is changing rapidly: the single use plastic ban simply prohibits causing certain types of externalities. In other cases, external damage is quantified and monetized. In both situations, companies are challenged to include their externalities into their business model.

In this trend report, Sustainable Inclusive Business (SIB Kenya) provides more insights in the backgrounds and implications of the Kenyan single use plastic ban. We invite all companies to give their reactions and suggestions to SIB Kenya, the knowledge center of the Kenya Private Sector Alliance (KEPSA), dedicated to a sustainable and inclusive private sector.

Key message

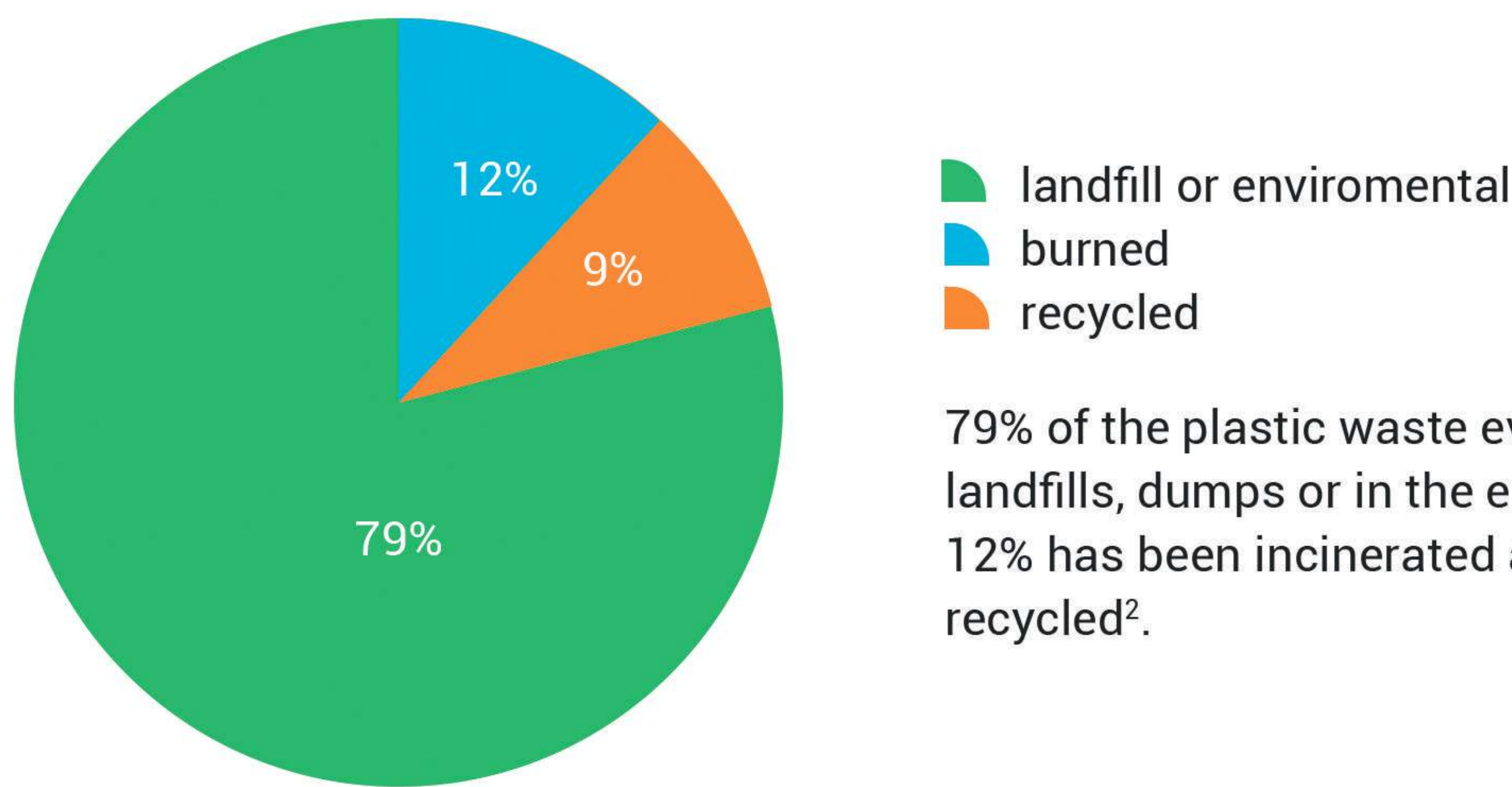
The private sector is a driving force in solving the plastic waste management problem. By adopting Circular Economy (CE) principles, Kenyan companies are able to innovate and provide new jobs.

Context

Global developments

Plastic is a beautiful product with lots of unique features: it is cheap, light and versatile. It can take almost any form, size and color. Plastic production has surged over the past decades, from 15 million tonnes in 1964 to 359 million tonnes in 2018¹ and is expected to double over the next 20 years, with most of it being single use packaging material. Therefore, plastic is omnipresent in our lives. However, plastic has one disadvantage: it does not decompose in nature.

After use, most plastics are disposed of in landfills while others are recycled, incinerated, littered or randomly dumped



79% of the plastic waste ever produced now sits in landfills, dumps or in the environment, while about 12% has been incinerated and only 9% has been recycled².

IF CURRENT TRENDS CONTINUE,
OUR OCEANS COULD CONTAIN
MORE PLASTIC THAN FISH IN
2050³



All plastic that is not disposed of in a proper way, will end up somewhere in the ecosystem, including in food chains and human bodies. Research by the World Wildlife Fund (WWF) indicates that human beings consume an amount of plastic equivalent to a credit card each week.

Plastics in forests and oceans cause severe damage to animals and other forms of life (biodiversity). The litter in public spaces has a negative influence on the quality of life. It also reduces the attractiveness of parks, beaches and natural beauty, which are essential for tourism.

¹ <https://www.statista.com/statistics/282732/global-production-of-plastics-since-1950/>

² https://wedocs.unep.org/bitstream/handle/20.500.11822/25496/singleUsePlastic_sustainability.pdf

³ <https://www.unenvironment.org/interactive/beat-plastic-pollution/>

⁴ http://awsassets.panda.org/downloads/plastic_ingestion_press_singles.pdf

Key facts, Kenya

Kenya does not yet have a crude oil extraction sector. It is therefore assumed that raw materials for the manufacture of plastics are imported. According to Eunomia (2018)¹, an inflated figure of the average growth rate from 2009 to 2016 gives the total import figure of approximately 567,000 metric tonnes (mt) of import per year.

Using the same approach, the exports were at 51,000 tonnes per year. The overall consumption of plastic per year is therefore 517 tonnes per year. According to this report, this value is an underestimate because imported and exported packaged products have not been included.

According to the Eunomia study, a total of 36,193 tonnes of plastic waste were recycled in 2017, meaning processing plastic waste through washing, flaking, shredding, grinding, pelletizing and/ or using recycled plastics in the production of new products. The volume forwarded to recyclers was higher at 42,950 mt, indicating that only parts of the recovered materials met the criteria for recycling [Eunomia, 2018]. The amount of plastic packaging recycled was 23,006 mt.

More key facts

- Every Kenyan generates 0.39 kg of waste per day, this is a collective amount of 20,000 mt daily (World Bank, 2018)
- 86% of imported PET originates from China and India (IPSOS, 2019)
- 36,193 mt per year has been recycled (Eunomia, 2018)
- Less than 10% of plastics are recycled in Kenya (KPAP, 2019)
- Of all waste produced in Nairobi, 9.5% is plastic (JICA, 2010)

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Policy overview, Kenya



Plastic bag ban

Effective August 2017, Kenya's ban on the production, selling and use of plastic carrier bags is considered the toughest in the world. This is because the penalty for breaking this law is up to 4 years in prison or up to Kes. 4,000,000 in fines.

Pursuant to section 144 of the Environmental Management and Co-ordination Act (EMCA), "Any person who contravenes the provision of the gazette notice shall be liable to a fine of not less than two (2) million Kenya Shillings, and not more than four (4) million Kenya shillings, or imprisonment of a term of not less than one (1) year but not more than two (2) years or to both such fine and imprisonment".

There are exemptions to this ban. Bags used for industrial primary packaging e.g. bread packaging, where the product is in direct contact with the plastic and is done at the source; and flat bags used as waste liners for hazardous waste, including medical waste and chemicals and regular waste garbage bin liners, are exempt from the ban.

Results indicate an 80% success rate and reduced polythene bags along the coastline, parks and drainages.

¹ https://eng.mst.dk/media/189822/kenya-plastic-packaging-report_final.pdf

Single use plastic ban

In September 2017, the use of the disposable PET bottles in Karura Forest was banned by the Ministry of Environment and Forestry. Other areas where PET bottles are banned include the National reserves and Game Parks, a move aimed at conserving and protecting animals and nature within this ecosystem.

On 4 June 2019, the presidential directive to ban single use plastics in protected areas was issued, including National Parks, beaches, forests and conservation areas with effect from 4 June 2020.

Categories of Protected Areas

- National parks
- National reserves and wildlife sanctuaries
- National monuments. e.g. The Kaya forest
- Biosphere reserves - Are reserves that conserve the diversity and integrity of biotic communities of plants and animals within natural ecosystems and safeguard the genetic diversity of species
- World heritage sites. e.g Sibiloi national park
- Ramsar sites - Kenya is a member of the Ramsar Convention of 1990. These sites are preserved as wetlands of International importance and include Lake Nakuru, Lake Naivasha, Lake Elementaita, Lake Baringo and the Tana River Delta.
- Beaches
- Protected forests



List of banned items

The following items constitute single use plastics, which are the subject of the ban

- Cotton buds
- Cutlery, plates, straws and stirrers
- Sticks for balloons and balloons
- Food containers (some fractions of plastic polymer)
- Cups for beverages (some fractions of plastic polymer)
- Beverage containers (PET bottles)
- Cigarette butts
- Bags
- Crisps packets, sweet wrappers, bread bags and confectionery wrappers
- Wet wipes and sanitary items



Kenya Plastics Action Plan

The Kenya Association of Manufacturers launched an industry-led initiative and action plan, the Kenya Plastics Action Plan (KPAP), which aims to bring manufacturers together to embark on collaborative strategies focusing on sustainable manufacture, use and recycling of plastics in Kenya.

An analysis by the research team behind the KPAP established that the waste management structure, including plastic waste, lacked organizational and financial resources. These, according to the report, can be solved through the establishment of an Extended Producer Responsibility (EPR) system.

It is imperative to Kenya that the EPR is initiated by the private sector ideally through Business Membership Organizations (BMO) but supported by external regulatory bodies.

This is to ensure maximum supply chain inclusion and the ability to tailor the system to local conditions.

Critical was also the involvement of political legislators for development of legal frameworks and for congruence with existing frameworks. The process was set to start in January 2020 at a current baseline of 9% recycling and with an annual proposed growth of 6%.



Africa

Africa is leading the global plastics ban campaign. With 127 countries worldwide having legislation and bans on single-use plastic, 34 of these are from Africa, followed by 29 in Europe.

Rwanda pioneered this movement in Africa by banning plastic bags in 2008 and has shown an example on inclusion and awareness creation as they aim to be the world's first plastic free country.

Kenya has also banned plastic carrier bags, has the strongest penalties in the world and industry initiatives are coming up to tackle other waste streams like the PET (KPAP).

South Africa already had EPR schemes like the PETCO, Nigeria following suit. Notably, Tanzania has been the latest country to ban the plastic carrier bag, attracting fines almost as hefty as the Kenyan ban.

Rest of the world

The EU, several cities like Oslo, and some states in the USA have similar bans already in place, or they will be introduced in the short term.

03

Megatrends

The Kenyan single use plastic ban fits perfectly in a set of trends that clearly indicate the important role of businesses in achieving a sustainable economy.

Towards a circular economy

The Kenyan single use plastic ban fits perfectly in a broader trend towards a circular economy (CE). In order to maintain the value of resources and materials, our current take-make-use-dispose economic structure must be replaced by an economic system that is circular by nature. In the foreseeable future, this will lead to great challenges and opportunities for businesses.

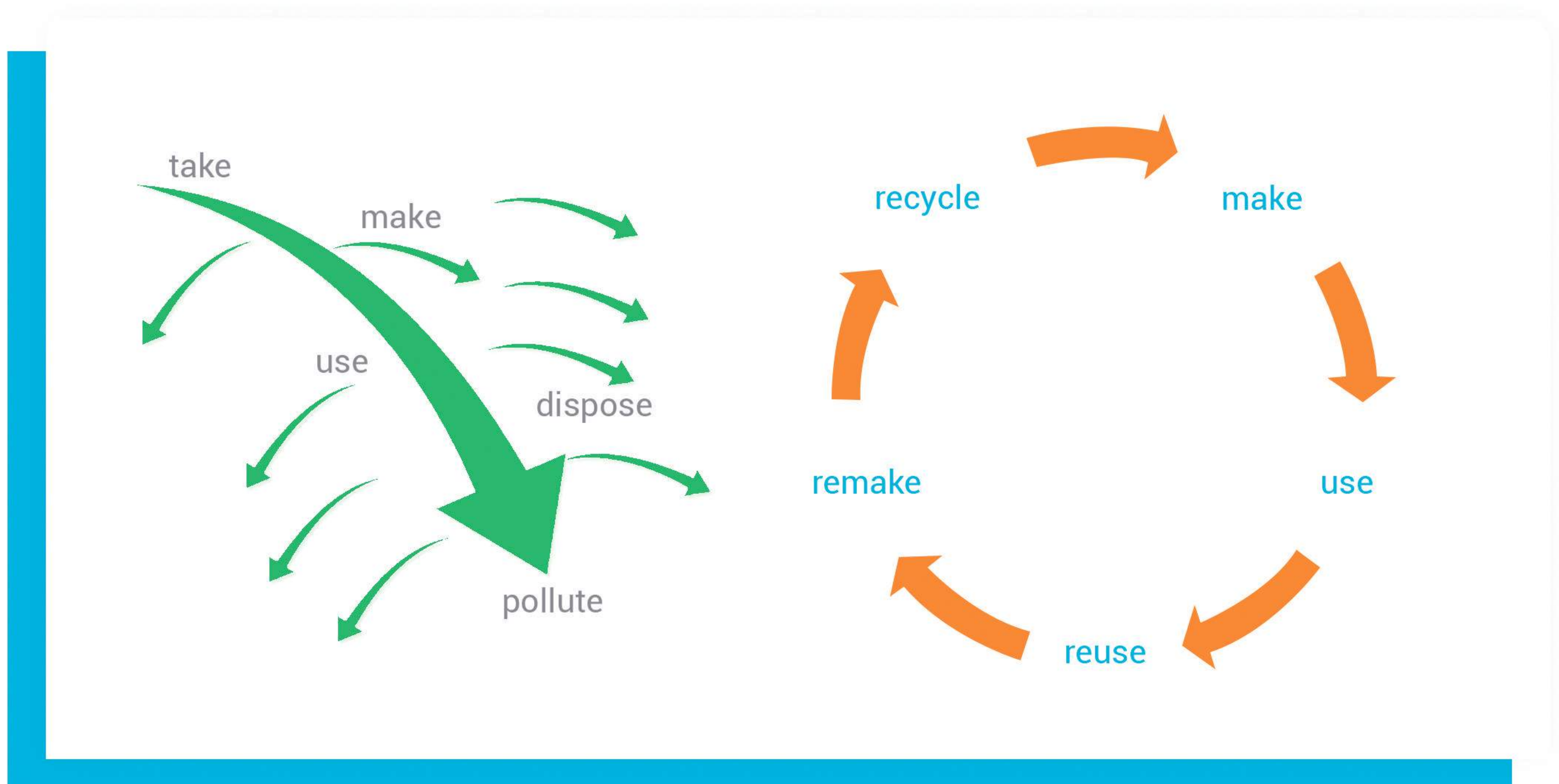
What is a circular economy?

A circular economy aims to redefine growth, focusing on positive society-wide benefits. It entails gradually decoupling economic activity from the consumption of finite resources, and designing waste out of the system. The circular model builds economic, natural, and social capital.

It is based on four principles:

- Design out waste and pollution
- Keep products and materials in use
- Regenerate natural systems
- Use renewable energy

Based on Ellen MacArthur Foundation



The EU aims to have decoupled economic growth from resource use in 2050. By that date, the traditional take-make-waste system must have come to an end.

The shift towards a CE is estimated to generate 700,000 new jobs in the EU by 2030. For Kenya or Africa, there is no research available on CE related job growth, but we expect that thousands of people will find employment in relevant industries, like product design, waste management, maintenance, repair and refurbishment, and recycling.

Indirect economic benefits are equally important. The cost of healthcare may drop because of healthier living conditions.

Reducing the amount of ill managed plastic waste will also have a positive effect on the amount of microplastics that end up in the food chain, which will be beneficial for human health.

If all materials are kept inside the economic systems, landfills could come to an end. This clearly benefits the resilience of ecosystems and biodiversity. This is not only important for the animals that are dependent on natural habitats, but is also crucial for agriculture and the ecotourism industry.

Finally, a circular economy also reduces the demand for virgin materials. Because many natural resources are finite by nature, an economy that relies on the continuous flow of virgin materials cannot be sustained in the long term. In order to keep the production of goods going, reusing the same materials more than once is crucial.

Shifting view on relationship economy-nature

The single use plastic ban also relates to a second megatrend, that might be described as the growing awareness that economy and nature are strongly interrelated, and that economy is a system created by humans that cannot exceed planetary boundaries in long term not exceed planetary boundaries.

Traditionally, economists (and politicians and businessmen) have seen nature as a resource that could be exploited for economic purposes without any real constraints.

The earth seemed big enough to supply for every need, and the more efficient its richness could be extracted, the better. In this way, the dominant economic paradigm caused human activities to become more and more detached from nature.

ECO



EGO



However, there are clear examples that indicate that this view can no longer be sustained. Take agriculture: because of climate change, soil degradation and aridification, food production is threatened. Or health: if water quality is bad, cholera outbreaks will occur more often, which raises the cost of healthcare and puts strain on the workforce.

The tourism industry needs unpolluted sceneries and cities to attract visitors. It is clear that the quality of our environment directly impacts human concerns like public health, economic activities and general wellbeing.

Currently, the vision on the relationship between nature and economy is shifting toward a more 'nature inclusive' view. This is sometimes referred to as ecosystem thinking. If nature and human activities are interrelated, it is in our best economic interest that we keep 'our home' healthy, resilient and diverse. The plastic ban can be seen as an effort to restore this relationship.

Dealing with externalities

The third megatrend that the single use plastic ban touches upon, is the growing need to deal with unwanted externalities of economic activities.

The single use plastic ban aims to reduce the amount of plastics in the environment, but one might ask why these bottles, shopping bags, earbuds and coffee cups ended up there in the first place. The simple answer is: because littering is free. There are no financial incentives to collect, sort and reuse the materials that these products are made of.

If no-one has to pay for the disposal of plastics, the costs remain invisible. But the damage littering causes is real. Decluttering sewers, negative impacts on health, tourism and agriculture comes with real economic impacts. There may be no invoice, but in the end someone has to pay the price.

To express production exclusively in monetary terms, and leave the harm done out, is an obvious flaw in the economic system.

These 'externalities' (negative environmental and economic effects) hamper sustainable development, and it is clear that they must be dealt with.

There are, in general, two opposite ways to do this: ban unwanted by-products, or monetize them.

Ban

The single use plastic ban clearly is an example of the first option. By prohibiting a number of products, producers are forced to innovate and come up with new materials. This has worked well in a number of cases, from DDT to leaded gasoline and cfc (which deplete the ozone layer).

The emergence of black markets and illegal production sites are an obvious threat to the success of the ban. In the case of plastic bags, it is known that they are smuggled in from neighboring countries. A global ban or a strict enforcement of the ban will be necessary to stop illegal use of plastics.

Monetize

Monetizing single use plastic products would have been another possible solution. This implies imposing new financial incentives to force producers to take back their product in the end of life phase. In this way, producers are challenged to cooperate with litter collectors and to develop products that can easily be reused or recycled. This can be done with take back schemes, leasing constructions or mandatory use of pre-used materials by producers.

This so called EPR, extended producer responsibility, also has been successful in many cases. In some European countries, glass bottles and tin cans have take back systems that enable high percentages of materials to be recovered after use. Other good examples include end of life vehicles in the Netherlands and e-waste in Switzerland.

EPR is a form of true cost accounting, or true pricing, a system to calculate and assign a monetary value to unwanted externalities. In many regions, this is also the case for carbon emissions, via taxes or cap and trade mechanisms.






In all cases, companies will have to find a way to deal with their own externalities, either by reducing them or by adapting the financial model to include costs for EPR.



All companies will have to comply with the ban, so if your business is in some way dependent on single use plastics, you will have to innovate your products, services and/or processes.

The shift towards a CE provides huge opportunities for the private sector. The other two megatrends we mentioned, the shift towards a more nature inclusive economic paradigm, and the need to deal with externalities, do not come with easy answers but should be on the agenda of every board.

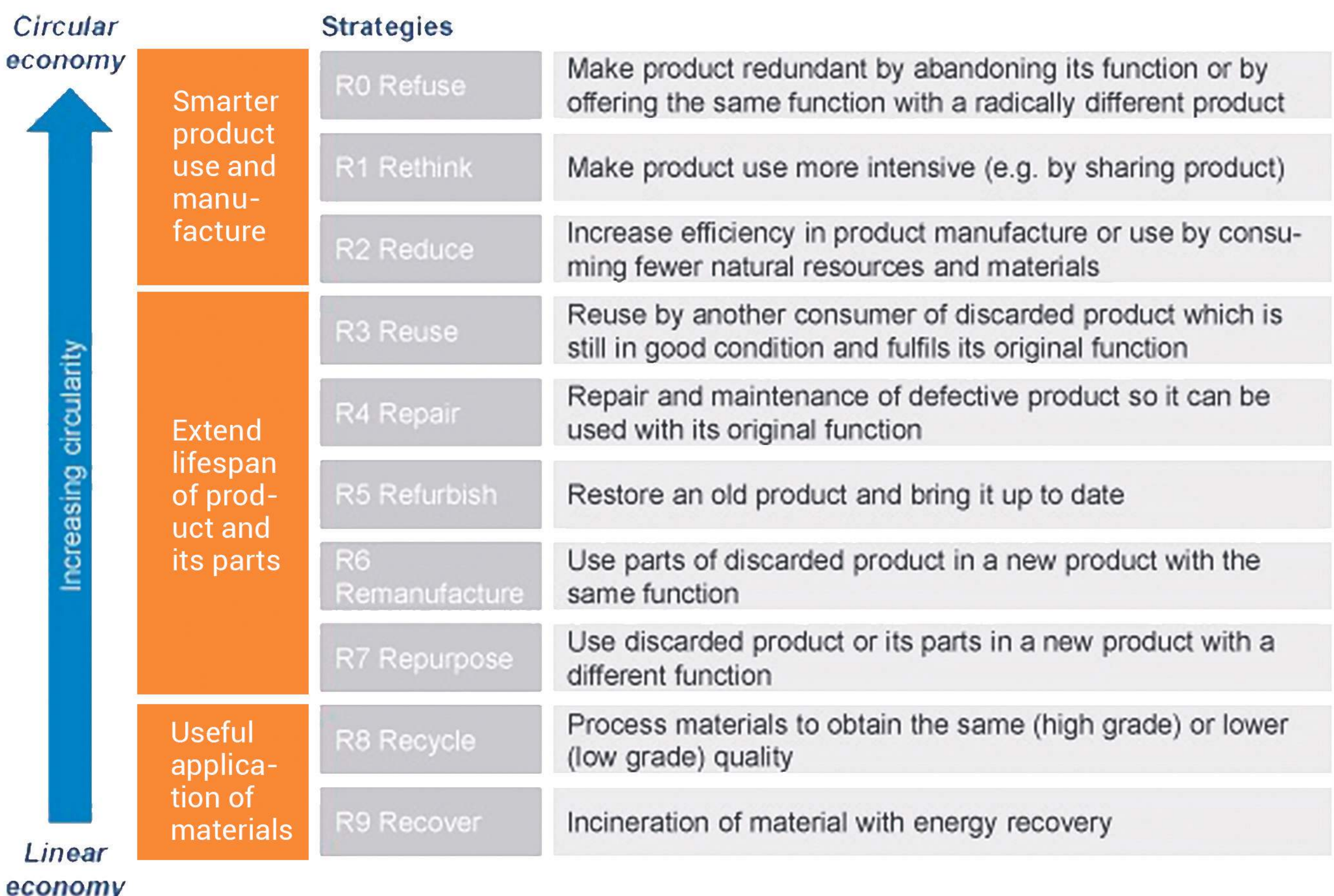
5 suggestions to deal with the single use plastic ban

- 
Refuse All kinds of plastic you can do without. Apply sustainable sourcing: do not buy single use products any more.
- 
Rethink Redesign Use mono materials that are easily recyclable. Redirect your R&D program to innovations that enable you to replace single use plastics by substituting them for glass, metal, wood or other circular alternatives.
- 
Remanufacture Make your products of reused plastic. Find suppliers that have waste streams that you can use as a resource. You will probably have to look for them outside your own industry.
- 
Recycle Convert disposed materials into new products. Avoid downcycling, strive to maintain the value of the materials.
- 
Recover Make sure the energetical content of the discarded products is fully used. Incineration should be the very last option, but if all previous steps did not lead to preserving the value of the materials, energy recovery is better than landfill.

Use the 10R-model to implement circular economy

All enterprises should have basic knowledge on circular economy.

The publications by the Ellen MacArthur Foundation offer great insights. The 10R-model (see illustration) offers practical guidelines to introduce circular business principles. Applied to the single use plastic ban, a few steps come to mind:



Take CE a step further

While all companies should at least understand and adopt the basics of a circular economy (see above), frontrunners could take this development a step further.

Develop new business models, like sell and buy back, rent/lease, pay per use/product as a service. In this way, the company keeps a close relation with the materials they use in their end product.

At the end of life phase, a circular company can easily recover the materials used and reuse them again in a new product series. The relationship with your clients will also change, as well as your revenue model. As a result, you will likely end up producing more sustainable products.



Make CSR and CE central to your strategy

Extensive research has shown that companies that perform well on CSR / ESG indicators in general outperform other companies on financial aspects as well. Especially companies which are developing a long term strategy should make the circular economy, along with climate neutrality and inclusive business, a core element of their plans. Show leadership by openly committing to the SDGs, use your annual report to share your progress and dilemmas.



Know your externalities

Assess all by products of your products and processes, including waste streams, carbon emissions, health and safety issues, and living wages. Do not confine this to your own company but involve major suppliers and clients. Make sure you understand the societal impact of your supply chain. Focus on maximizing positive effects (jobs, innovation, profit, useful products) and resolving negative effects (pollution, emissions, hazards, single use packaging, bad working conditions).

A qualitative approach is good to start with, but developing a way to quantify or even monetize externalities can be useful to improve decision making. This is also relevant in cases where EPR legally forces you to take responsibility for your products, even if you are no longer the owner.



Share your knowledge

If you have solutions that can be interesting for other private sector parties, this gives you the opportunity to showcase your company. Join KEPSA and share your best practices through the SIB Kenya knowledge center.

Case / best practice



Dopper <https://dopper.com/our-mission>

Dopper is a Netherlands based social enterprise which aims to reduce the amount of single use plastic bottles by providing reusable water bottles. They claim to have prevented almost 12 million kg of plastic from entering the ocean by selling 2.3 million reusable Dopper bottles, all with a cradle-to-cradle certification.

They complete their work by supporting educational and awareness projects, and increasing the number of people with access to tap water in Nepal. Dopper's turnover was 14.1 million euros in 2018, with a healthy profit of €1.9M.

Trash Thread Textiles

T3 has set up a Recycled PET (rPET) textile plant located in Athi River, Kenya with initial capacity of 20,000 kg a day, and it will utilise post-consumer plastic collected all over Kenya and East Africa. For the first year, the aim is to recycle 6 million kilograms of PET. The Company will be vertically integrated, and use almost all of its recycled material in yarn and textile manufacturing. This product will primarily be sold to designers and fashion houses so they can now source recycled, socially responsible fabrics made in Kenya. It will also be used in other high value added manufacturing operations such as the automotive, agriculture and healthcare industry.

Tourism Plastic Pledge

Tourism is both an important contributor to plastic waste and a victim of it. In 2019, 100 companies and organisations from the tourism sector signed the International Tourism Plastic Pledge. In doing so, they are expressing their joint commitment to reduce plastic pollution at holiday destinations worldwide.

The signatories include TUI Group, Radisson Hotel Group, Hostelling International and Green Key International. MVO Nederland (CSR Netherlands) is the initiator and guides the companies towards further steps.

DuniaDesigns

Dunia confronts the massive challenge of plastics pollution by creating exceptionally designed furniture, accessories, and construction products from 80-90% up-cycled plastic; utilizing reconstituted plastic lumber as a frame to replace wood reduces pollution and conserves trees. Dunia has removed over 480 metric tonnes of plastic waste from the environment since 2016 and has become a local employment facilitator for skilled carpenters and upholsterers and unskilled collection teams.

EcoPost

EcoPost uses 100% recycled plastics to make aesthetic, durable and environmentally friendly plastic lumber for use in applications ranging from fencing to landscaping.

The EcoPost plastic lumber is made from 100% recycled waste with no chemical treatment.

Life straw

With the LifeStraw bottle and tanks, there is a filter that purifies water. This makes it possible to drink water from any source through the straw, which can purify up to 1000 litres of water before it needs to be replaced. This reduces the demand for plastic bottles and at the same time increases water accessibility to vulnerable communities.

Taka Taka Solutions

A waste collection and resource recycling business. The initial separation of waste into two fractions (organic and inorganic) by their clients enables them to separate into plastics (containers, bottles, packaging), papers (paper, cardboard), metals and others and sends them to their relevant recyclers. Takataka solutions guarantees 95% recycling. Glass bottles are recycled into beautiful wine glasses and tumblers.

- Global Citizen on the Kenyan single use plastic ban
- Plastic Soup Foundation on single use plastics
- World Economic Forum on Circular Economy
- European Union on Circular Economy
- Ellen McArthur Foundation, The new plastics economy
- SIB Kenya: <https://www.sustainableinclusivebusiness.org>

