

Kate Stubbs, director of Business Development and Marketing at Interwaste, answers our questions

What is the landscape of waste management, disposal and recycling in SA regarding offices, warehouses and e-waste?

According to a recent report¹, South Africa ranks as one of the worst environmental polluters globally, with a reported 9,3 tons of CO₃ emissions emitted, per person per day.



What these statistics indicate is that collective efforts will be key in addressing these current challenges, where the responsibility of government now needs to be tackled alongside, citizens and corporates alike.

Now, more than ever, businesses are being tasked with the responsibility to support government's efforts to safeguard the future of the environment, by adopting tighter environmental and social practices both internally and externally, and thereby minimising their carbon footprint within their operations. Part and parcel of this is also adopting greener practices to address the effective management of their operational waste.

In terms of the three specific commercial environments discussed here, we are seeing the following key trends:

Offices

As a by-product of trends in the commercial property space, where there has been great growth in and development of green office buildings, we are seeing better adoption of sustainable interventions, such as on-site separation of waste and recycling, more efficient energy solutions and water reticulation systems, as well as grey water reuse and/or rain water systems being incorporated into the design and construction of these buildings. However, there is more than can be done to drive awareness, education and behavioural change across the local business landscape – and adoption of proactive and sustainable waste management practices by businesses of all makes and sizes.

Warehouses

In addition to the above trends, companies seeking to build and operate more environmentally friendly warehouses are implementing initiatives such as eco—friendly lighting and better insulation to cool the warehouse in hot temperatures and equally, retain heat in cooler months. New technologies also assist with enhancing warehouse layouts and process flows as well as stock location (RFID) so as to minimise efforts in locating and placing stock. Energy efficient equipment such

as hydrogen fuel cell forklifts are also being used to reduce fuel usage, thereby reducing the carbon footprint of the operation.

Electronic waste

In South Africa, we are drowning in terms of e-waste management, with about $360\ 000^3$ tons of e-waste generated annually. What's more is that, instead of using such waste to its full potential, at least 90% of the circuit boards, and 80% of the plastic that is obtained from e-waste, is exported.

This is a concerning trend if we consider the fact that the sector can produce up to 25 jobs per 1 000 tons of handled e-waste, then we are losing out on the opportunity to for much larger job creation in the sector – never mind the fact that we are losing these valuable resources that can be reused and repurposed and added back into the economic mix locally.

As businesses that operate in this space, it is critical that they start looking at ways in which to optimise the management of this waste. Quite simply, the separation of electronic parts into different waste streams (glass, metal, plastic etc), is critical to getting this type of waste management right and optimising the by-products of such waste. Furthermore, it is about finding alternative uses for the reuse and redistribution of end-of-life products.

As consumers, we can also play our part by managing our e-waste more effectively. We can assist in reducing e-waste by organising what we have and buying less, returning them to the relevant store for repurposing and learn about local recycling options.

What are the challenges and solutions of the above?

Across industries, we are seeing a more concerted effort to find solutions that make active use of waste – building on the philosophy of reuse wherever possible. And, where reuse may not be possible, to adopt a more environmentally friendly and proactive sustainable approach to recycling and appropriate waste disposal.

The importance lies in finding solutions that present opportunities to either drive revenue or environmental sustainability opportunities through such waste streams. Partnering with a reputable waste management company that can provide these commercial industries with the support they need to repurpose some of their existing waste into alternative industrial means is central to such development and process refinement when it comes to waste.

South African waste management regulations favour alternative disposal methods, which provides a favourable business case for the industry to produce innovative alternatives to the market. In fact, there are numerous world class facilities around the country that have been built in line with global best practice including: refuse derived fuel plants that aim to reduce waste to landfill by converting industrial and municipal waste to alternative fuels.

In addition to this, businesses now have the option of utilising safe destruction facilities that provide them with a secure, confidential service to destroy their e-waste, redundant assets, consumer products and general items of value. Post-destruction recycling and waste beneficiation is then introduced into the process, and through this ensures that there is no commercial risk, but also an environmentally friendly and landfill-free destruction method.

What is the way forward to prevent landfill overfilling?

Legislation has a leading role to play in driving the future of an integrated and sustainable approach to waste management as a national priority.

Over the past several years, new legislation has been developed to support more environmentally friendly and sustainable waste management processes, including to improve the disposal of waste to landfill and, more importantly, to encourage the waste industry to seek alternative solutions.



One of the most significant developments has been the prohibition of certain waste streams from landfill disposal as from 2013 – with additional waste streams falling into this prohibition on an annual basis. It is imperative that local industry stakeholders are aware of this legislation and take the necessary steps to comply. Critically, these prohibitions represent an opportunity to seek alternative and more sustainable waste management solutions - and create a more efficient waste economy in South Africa.

Government has also put policies in place to support the implementation of the new legislation and overall to divert certain waste from ending up at landfill sites. An example of this is the National Waste Management Strategy, launched by the Department of Environmental Affairs (DEA) to promote waste minimisation, re—use, recycling and recovery of waste, among other things. Government is therefore trying to establish a more uniform way to ensure all public and private sector entities and citizens recycle all their reusable products, as far as possible, and contribute to national recycling initiatives and programmes.

It is evident that waste management can no longer be approached with a linear view – and we need to be thinking ahead, adopting an all-encompassing view, with innovative and best practice for recycling and waste reform. And, succeeding in this will take significant buy-in from government, corporate South Africa and individual citizens – as every sphere of society has a shared interest and therefore an important role to play in adopting positive behaviours to reduce their waste, practice separating and recycling at source and contributing to the overall sustainable waste management objectives of the country.

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