

URBAN MINING AND AFRICAN ARGENTUM RESOURCES

01 Urban Mining is vitally important for 2 reasons

A As the demands for manufactured goods grows, raw resources diminish and the mining of them becomes more difficult and environmentally and socially damaging

As noble metals are inherently recyclable the metal stocks in society can serve as huge mines above ground. It means that instead of digging deep into the earth the city is an above ground resource of the same materials as come from below the ground

Urban Mining is a sustainable process to supply industrial needs into the future

B Metal and chemical containing waste produced in a city's industrial zones is a toxic hazard polluting land, water and air

If the metals and chemicals are mined out of here, instead of out of the ground, the waste product is stabilised and can be harmlessly disposed of

This industrial process has now reached maturity and become cost effective thus enabling cities to be industrial waste free

02 African Argentum Resources defines Urban Mining as applying resourceful thinking to obtain in demand elements and compounds from what occurs around us. It's a long existing idea with a new and creative application in our recovery of silver

One of our market differentiators is that we accept a wide variety of silver containing waste streams rather than focussing on a particular type of waste

We are therefore able to reduce large quantities of industrial and consumer waste and extract silver to be used in a number of value added products



Filtering ore bearing slurries



3 MVA DC ARC Furnace

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03 E waste

A We intend to remain leaders in the field of metals recovery from E waste in order to address the two issues of,

- **a shortage of future minerals supplies and the inevitable destruction in their extraction**

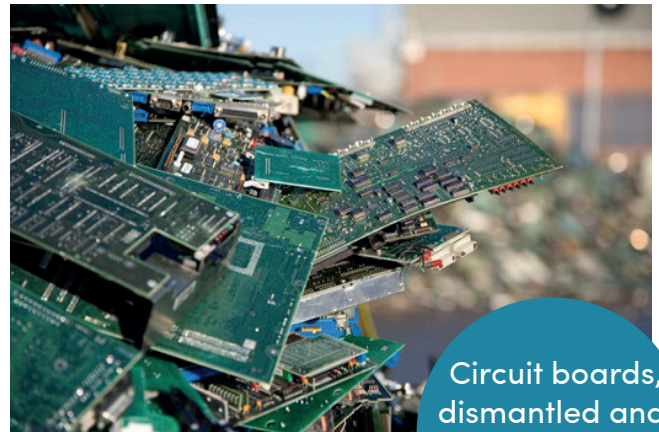
A 2010 report by the United Nations Environment Programme warned that the recycling rates of some rare metals used in applications such as mobile phones, battery packs for hybrid cars and fuel cells, are so low that unless future end of life recycling rates are dramatically stepped up these critical metals will become unavailable for use in modern technology.

- **The inescapable enormous waste stream developing in the 'throw away society'**

According to the Global E waste Statistics Partnership the total amount of E waste in 2016 was 44,7 million tons, the equivalent of 9,8 million elephants. The number continues to increase. Every computer, server, printer, monitor, phone/fax, copier, etc. that is replaced adds to the world's growing tonnage of E waste.

B We buy

- **E waste from electronic waste traders**
- **electrical components**
- **telecommunications, electronics**



Circuit boards, dismantled and ready for separation.

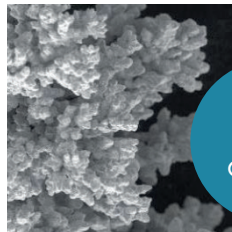
04 Solid Silver Waste

African Argentum Resources buys silver waste in solid form from a number of sources. These include,

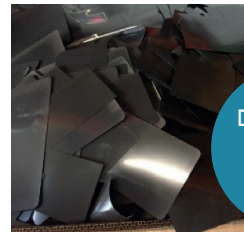
- **a variety of spent catalysts including auto and industrial**
- **industrial scrap**
- **jewellery scrap**
- **silverware**
- **X rays**



Ethylene Oxide Catalyst



Nano Silver Catalyst



Discarded X ray plates

05 Liquid Silver Waste

Assisting in minimising industrial effluent, we purchase silver containing waste from,

- **mine residues and slags**
- **metallurgical residues**
- **fixer solutions used in the photographic industry**
- **scrubbing systems.**