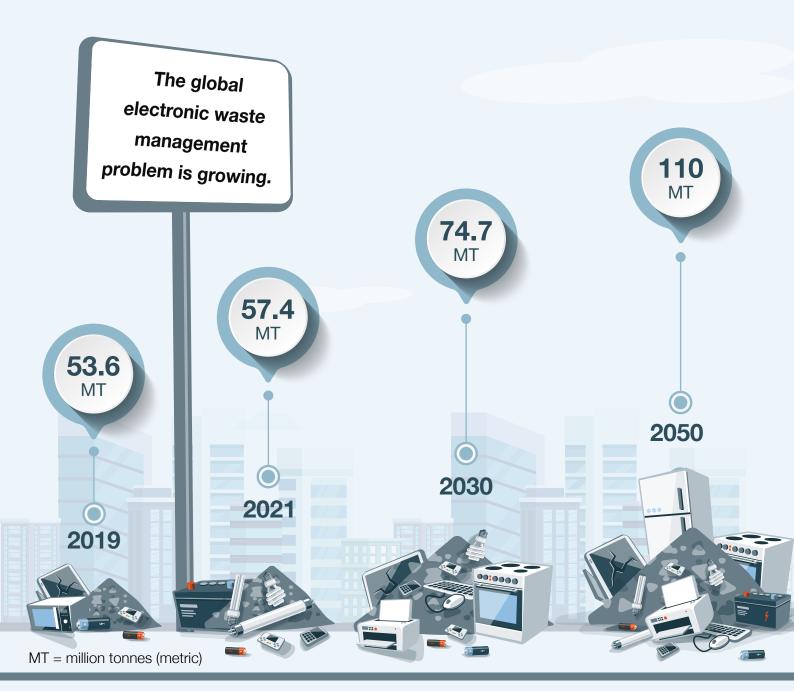




# E-WASTE MANAGEMENT

## THE GOLD RUSH WAITING TO BEGIN



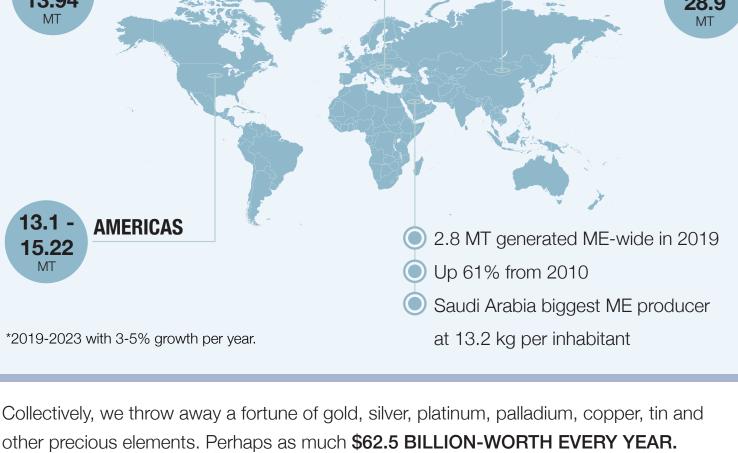
fastest growing waste stream in the world

This makes

e-waste the



part of the problem. But E-waste recycling rates remain stubbornly below 20%. **12** · 24.9 **EUROPE ASIA** 13.94



On average, a tonne of e-waste contains approximately 100 X MORE GOLD than a tonne



children and adolescents, many as young as 5 years old, work in the informal industrial sector.

**32** %

24.4%

**MILLION** 

of gold ore.

SMALL EQUIPMENT Microwaves, vacuum cleaners, fans,

kettles, toasters, shavers, hairdryers,

LARGE EQUIPMENT

cookers, stoves, dishwashers

Washing machines, tumble dryers,

radios, tools, toys

women work in the global informal

waste sector, exposing them and their unborn children to these risks.

exposing humans and wildlife to contaminants. MOST COMMON TYPES OF E-WASTE ITEMS

> **SCREENS AND MONITORS**

notebooks, tablets

**EQUIPMENT** 

Televisions, monitors, laptops,

SMALL IT & TELECOMS

Cell phones, phone cases, wireless routers, keyboards, e-readers, GPS

Mercury and lead leeches

into soil and water systems,

### **TEMPERATURE EXCHANGE LAMPS EQUIPMENT** Lamps, bulbs and LEDs **20.1**% **1.7**% Refrigerators, freezers, air conditioners, heat pumps



for e-waste so low? Rapidly increasing volumes of e-waste – waste levels are outpacing recycling capacity.

transportation.

12.5%

8.8%

Poor e-waste legislation - Only 78 UN Member States have regulations in place. Underdevelopment of e-waste management infrastructure.

waste sectors for valuable e-waste.

Competition between formal and informal

Legal and illegal import and export issues historically poor governance of e-waste

Why are recycling rates

WHO'S LEADING THE WAY?

STEPS TO REDUCE E-WASTE:

MAJOR INFRASTRUCTURAL INVESTMENT Oman's Evergreen Gulf Recycling Hub (EGRH) went fully operational in November 2023, with annual e-waste processing capability of 20,000 tonnes.



EASIER COLLECTION FOR RECYCLING

PUBLIC INCENTIVISATION

start-up Excir, creating a process that can reclaim 99% of gold from printed circuit boards (found inside

ADVANCED RECYCLING / **RECLAMATION METHODS** The UK Royal Mint has partnered with Canadian

vouchers with participating electronic goods stores.

Egypt has introduced the E-Tadweer app, where users take their used devices to collection points to exchange for

### COMMUNITY INVOLVEMENT Singapore has created networks of skilled

smartphones, laptops, etc).

volunteers who help repair electronic items to extend their useful lifetime and avoid unnecessary new purchases. The benefits of improved e-waste collection, reuse and recycling

amount to tens of billions of dollars globally each year, while



safeguarding public and environmental health. What could effective e-waste recycling look like? If Minnesota, a small US state of around 5.8 million people,





Valuable materials recovered

£78 million



worldfutureenergysummit.com

collected and reused 100% of its E-waste, it would result in:

155,000 Electric vehicles manufactured from recovered copper

With multi-billion-dollar e-waste streams unclaimed and uncollected, the great gold rush of e-waste management is set to begin.

Jobs created