



Recycling E Waste for a Sustainable & Profitable Future

Outline

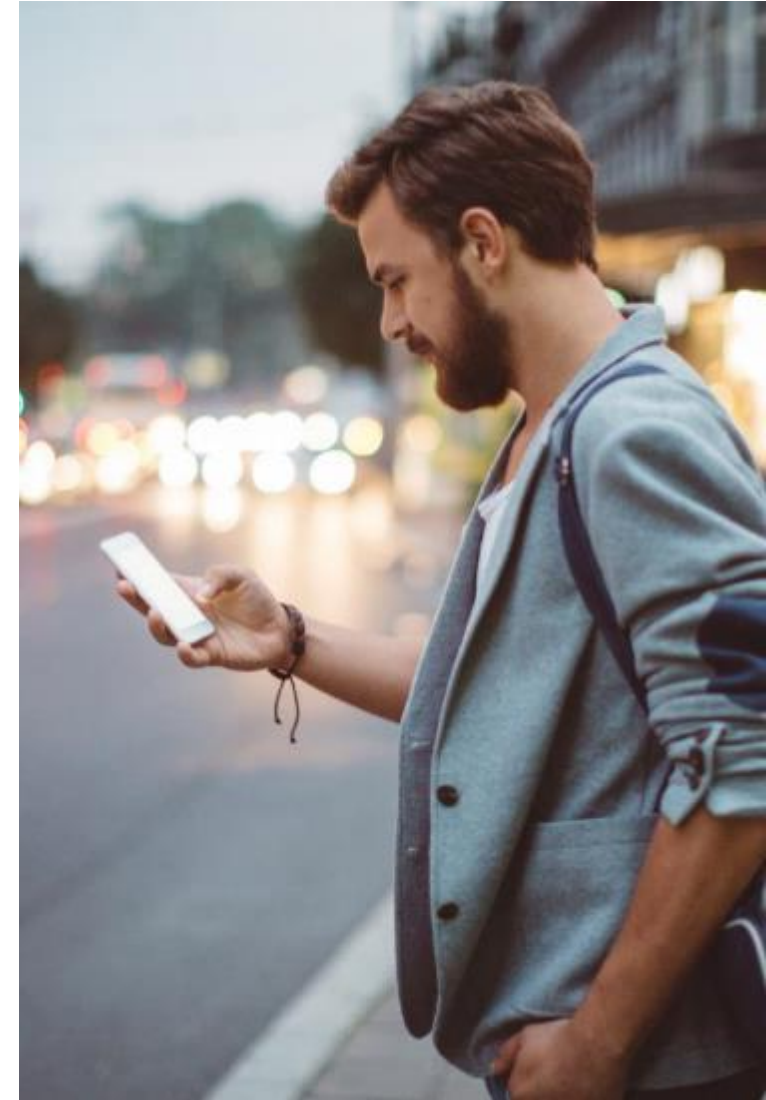
Introduction.

What is sustainable & Profitable E-waste Recycling.

Urban Mining.

E-waste and the circular economy.

A call to action.



Introduction



CARIBBEAN
E-WASTE
MANAGEMENT INC.

- Caribbean E-Waste Management Inc. (CEWMI)
- Start-up - January , 2008.
- Founded out of a need to create employment .
- To play my part in the UN's 7th millennium development goal (MDG)
-Ensure Environmental Sustainability .
- Contribute to the environmentally sound management of WEEE.

OUR VISION

To be the leader and first choice in the field of electronic re-cycling and e-waste diversion in the Caribbean.



E-waste define.



Electronic waste, or e-waste, refers to all items of electrical and electronic equipment (EEE) and its parts that have been discarded by its owner as waste without the intent of re-use (Step Initiative 2014). E-waste is also referred to as WEEE (Waste Electrical and Electronic Equipment), electronic waste or e-scrap in different regions and under different circumstances in the world.

What is sustainable & Profitable E-waste Recycling.

While there are much benefits from manually disassembling e-waste, there are still some major loses in the material being harvested. In this regards we need to develop our processes by using upgraded technologies that will enhance sustainability and increase profitability. This can be done by a installation of an E-waste processing plant with all the necessary technology to see maximum resource recovery. This in tern will help us to tap into the global estimation of \$63 billion per year revenue from e-waste recycling.

E-waste consequently represents a resource that is vastly richer than any naturally-occurring deposit. One ton of e-waste on average contains 17 times more gold than a typical ton of mined, gold ore, with the total value of all materials in such waste flows estimated at \$63 billion per year.

<https://www.downtoearth.org.in/coverage/waste/wasted-e-waste-40440>".

Now, Turn "E-waste" into Gold



The generation of e-waste rapidly increased worldwide during the last decade. According to the ITU statistics the subscription to mobile phone providers raised from 87 Million in 2005 to 582 Million in 2013.

[1]. It is expected that by 2030 a majority of obsolete computers will be generated in developing countries.

[2]. The current lack of e-waste management strategies and infrastructure in most developing countries bears a risk for the concerned countries and also contributes to the loss of important resources. The (Step) Initiative with its members supports countries to establish the technological and institutional capacity to grasp the opportunity rather than suffer with the challenges. A well-established system to collect and treat used or obsolete electrical and electronic equipment on a national level leads to an improved economic situation through the creation of green jobs and a decreasing impact on the environment and on human health. It also supports increased resource efficiency by substantially reusing material and not losing it through improper treatment by primitive recycling practices. Dismantling of WEEE can be an opportunity for entrepreneurs to set up sustainable recycling businesses and creating green jobs. However a lot of challenges have to be faced when implementing a new dismantling facility. “ **(Step)Solving the e-waste problem-Business Plan Calculation tool for Manual Dismantling Facilities**”.



Urban Mining.

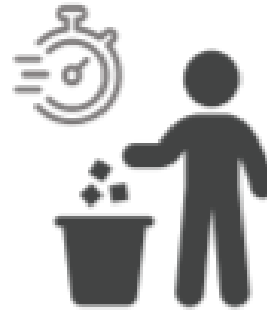
E-waste contains precious metals including gold, silver, copper, platinum, and palladium, but it also contains valuable bulky materials such as iron and aluminum, along with plastics that can be recycled. Overall, UNU estimates that the resource perspective for secondary raw materials of e-waste is worth 55 Billion € of raw materials.



TODAY



Production dependent on virgin materials and can contain hazardous substances



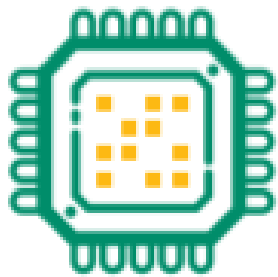
Products often discarded prematurely



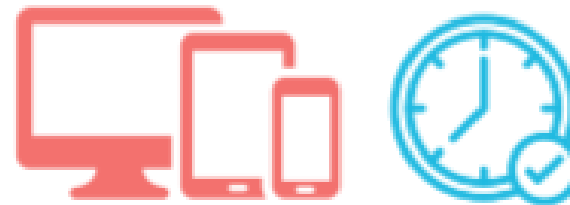
Less than 20% of end-of-use products are formally collected and recycled

E-waste and the circular economy.

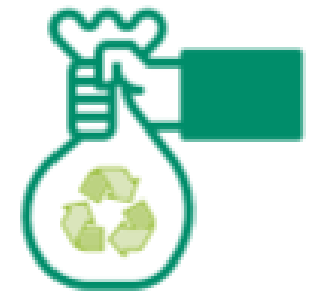
FUTURE



New products use more recycled and recyclable content



Products and their components are used for longer



End-of-use products are collected and recycled to a high standard

Technological advancement, as well as improved accessibility and affordability, has led to a significant increase in the use of electronics worldwide, transforming the way we live and work (Forti et al. 2020). COVID-19 has emphasized—if not boosted—the relevance of electronics products and digital services in our societies. Many individuals and organizations, from schools to businesses, are increasing their investments in digitization. Globally, sales of electrical and electronic equipment are projected to continue growing and, if current common production and consumption modes also continue, so too will the draw on natural resources, the amounts of e-waste generated, and the greenhouse gas emissions from fossil fuel use in the value chain (Forti et al. 2020).

This emphasizes the need for all stakeholders to accelerate existing efforts to realize a more sustainable and resilient electronics industry. A circular economy for electronics is critical to achieving at least nine of the 17 Sustainable Development Goals (United Nations 2015). The coming decade will be critical for the electronics value chain to capitalize on its innovation, speed, and agility to contribute to this global agenda.

[“PACE- \(action-agenda-electronics-feb2021_FINAL\)”](#).

A Call to Action.

How Can We take action?

The critical actions of businesses, governments, civil societies, financiers and researchers will depend on their position in the value chain.

Here are a few starting points:

- Collaborating with other value chain actors.
- Recyclers can: co-develop standards and certification for secondary materials.
- Co-deploy collection mechanisms and EPR schemes.
- Identify innovation opportunities in sorting, pre-processing, and recycling technologies.
- integrate informal workers in the development of professional collection and recycling infrastructure.

Incentivize and Support Product Design for Circularity .

Transform Consumption Modes to Increase Market Demand for Circular Products and Services.

Guide and Support New Business Models for Environmental, Financial, and Social responsibilities. (Triple-Win).

Set Up Effective Collection Systems.

Increase Incentives for Investment in Recycling Technologies and Facilities.

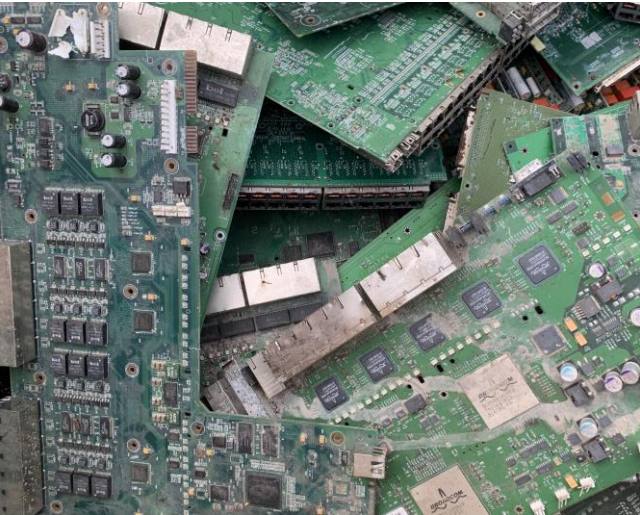
Monitor glass been recycle
by using to do painting.



Refurbished computer,
ready for resale.



Semi process circuit board
for export.



Gold memory rams
Ready for export.



THANK

YOU