Microfactory

- A microfactory is one or a series of small machines and devices that uses patented technology to perform one or more functions in the reforming of waste products into new and usable resources. The e-waste microfactory that reforms discarded computers, mobile phones and printers has a number of small modules for this process and fits into a small site.
- The discarded devices are first placed into a module to break them down. The next module may involve a special robot for the identification of useful parts. Another module then involves using a small furnace which transforms these parts into valuable materials by using a controlled temperature process developed via extensive research.
- The e-waste microfactory has the potential to reduce the rapidly growing problem of vast amounts of electronic waste causing environmental harm and going into landfill. It can also turn many types of consumer waste such as glass, plastic and timber into commercial materials and products.
- For instance, from e-waste, computer circuit boards can be transformed into valuable metal alloys such as copper and tin while glass and plastic from e-devices can be converted into micromaterials used in industrial grade ceramics and plastic filaments for 3D printing.
- Using our green manufacturing technologies, these microfactories can transform waste where it is stockpiled and created, enabling local businesses and communities to not only tackle local waste problems but to develop a commercial opportunity from the valuable materials that are created.