Chapter 1

What is E-waste?

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. It includes a wide range of products – almost any household or business item with circuitry or electrical components with power or battery supply. In this methodology, defined by the Partnership on Measuring ICT for Development (Baldé et al., 2015a), the definition of e-waste is very broad. It covers six waste categories:

1. Temperature exchange equipment, more commonly referred to as cooling and freezing equipment. Typical equipment includes refrigerators, freezers, air conditioners, heat pumps.

2. Screens, monitors. Typical equipment includes televisions, monitors, laptops, notebooks, and tablets.

3. Lamps. Typical equipment includes fluorescent lamps, high intensity discharge lamps, and LED lamps.

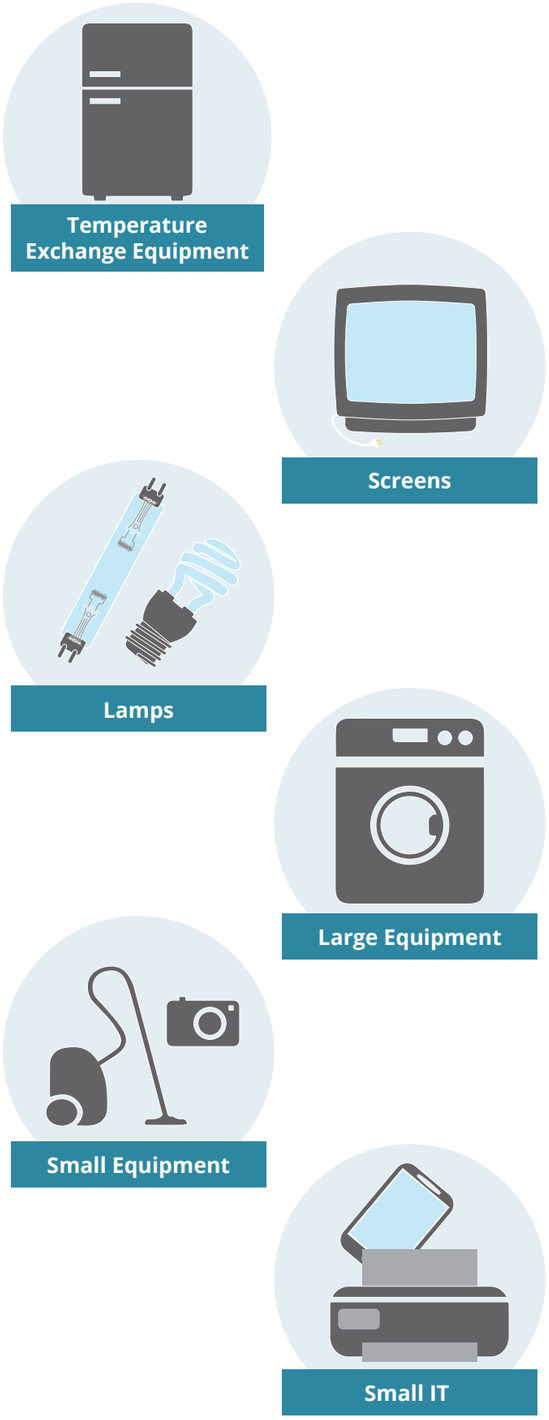
4. Large equipment. Typical equipment includes washing machines, clothes dryers, dish-washing machines, electric stoves, large printing machines, copying equipment, and photovoltaic panels.

5. Small equipment. Typical equipment includes vacuum cleaners, microwaves, ventilation equipment, toasters, electric kettles, electric shavers, scales, calculators, radio sets, video cameras, electrical and electronic toys, small electrical and electronic tools, small medical devices, small monitoring and control instruments.

6. Small IT and telecommunication equipment. Typical equipment includes mobile phones, Global Positioning Systems (GPS), pocket calculators, routers, personal computers, printers, telephones.

Each product of the six e-waste categories has a different lifetime profile, which means that each category has different waste quantities, economic values, as well as potential environmental and health impacts, if recycled inappropriately. Consequently, the collection and logistical processes and recycling technology differ for each category, in the same way as the consumers' attitudes when disposing of the electrical and electronic equipment also vary.

Illustration 1.1: The six e-waste categories



Source: Baldé et al., 2015a