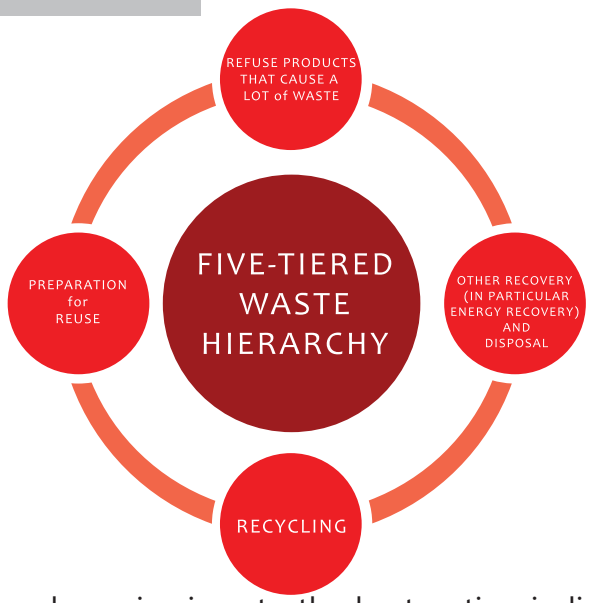
REFUSE: MAKE THE CHOICE TO NOT GENERATE WASTE

The most direct method of reducing the amount of trash is by refusing to consume. This does not mean to stop generating trash altogether, but rather to stop consuming particular products. A person may decide not to buy certain items, that generate more waste than benefits. For example, a person may feel the need to buy apples every time he goes to the store. However he may not eat them and often they go to waste. Knowing this, one may decide to quit purchasing apples, which will result reduces the amount of waste they produce.

Around the globe, piles of waste are swelling to become gigantic mountain ranges. If concerted action is not taken, humanity will be producing 11 million tonnes of waste per day in 2100. the growing mountains of waste exact a heavy toll not only in economic terms, but also on the environment. In most emerging nations, the infrastructure for waste disposal is inadequate or simply non-existent. Unregulated storage, illegal dumping and open-air incineration create significant environmental pollution and pose serious health risks. Contamination of the soil, groundwater and surface water damages ecosystems. The inappropriate treatment and dumping of waste also has have severe repercussions for the climate.

To keep the waste heaps from reaching to the skies, waste management and recycling must be ramped up around the globe. Two aspects are key: waste avoidance and the recovery of reusable materials. By fostering the reuse of waste, the lead market for waste management and recycling has the potential to reduce inputs of primary raw materials and the burden on the environment associated with their extraction. The tremendous importance of waste avoidance and recycling is mirrored in the ideal of the full-cycle concept. This model of closed material cycles follows the principles seen in natural ecosystems that produce no waste, instead converting all materials into reusable resources.

The guiding principles established for waste management and recycling map out a five-tiered waste hierarchy with the following priority order:



Precedence is given to the best option in light of environmental considerations, although ecological, technical, economic and social consequences must also be analysed.

The above waste hierarchy creates a framework within which to identify distinct market segments in the lead market for waste management and recycling. The services and infrastructures subsumed under the market segments for waste collection, transportation and separation lay the foundation for waste management and recycling. The market segment for material recovery comprises the technology lines for mechanical recycling and feedstock recycling. Mechanical recycling refers to recycling processes in which the materials and their chemical structure are not altered. One example is the remelting of plastic waste to produce granulate. Feedstock recycling treats substances in a way that changes their chemical structure – deriving oils, waxes and gases from plastic waste, for example.

One widespread form of energy recovery is thermal waste treatment, which involves incinerating waste and using the energy released by this process to supply heat and generate power. The use of organic waste in biogas plants is another variation on the same theme. Waste that is not suitable for material or energy recovery must be disposed of in an environmentally friendly manner. The landfill technologies market segment brings together those technology lines that serve this purpose.