

RECYCLING OF WASTE ELECTRICAL AND ELECTRONICS EQUIPMENT(WEEE)

Presented by STALIN.A

Abstract



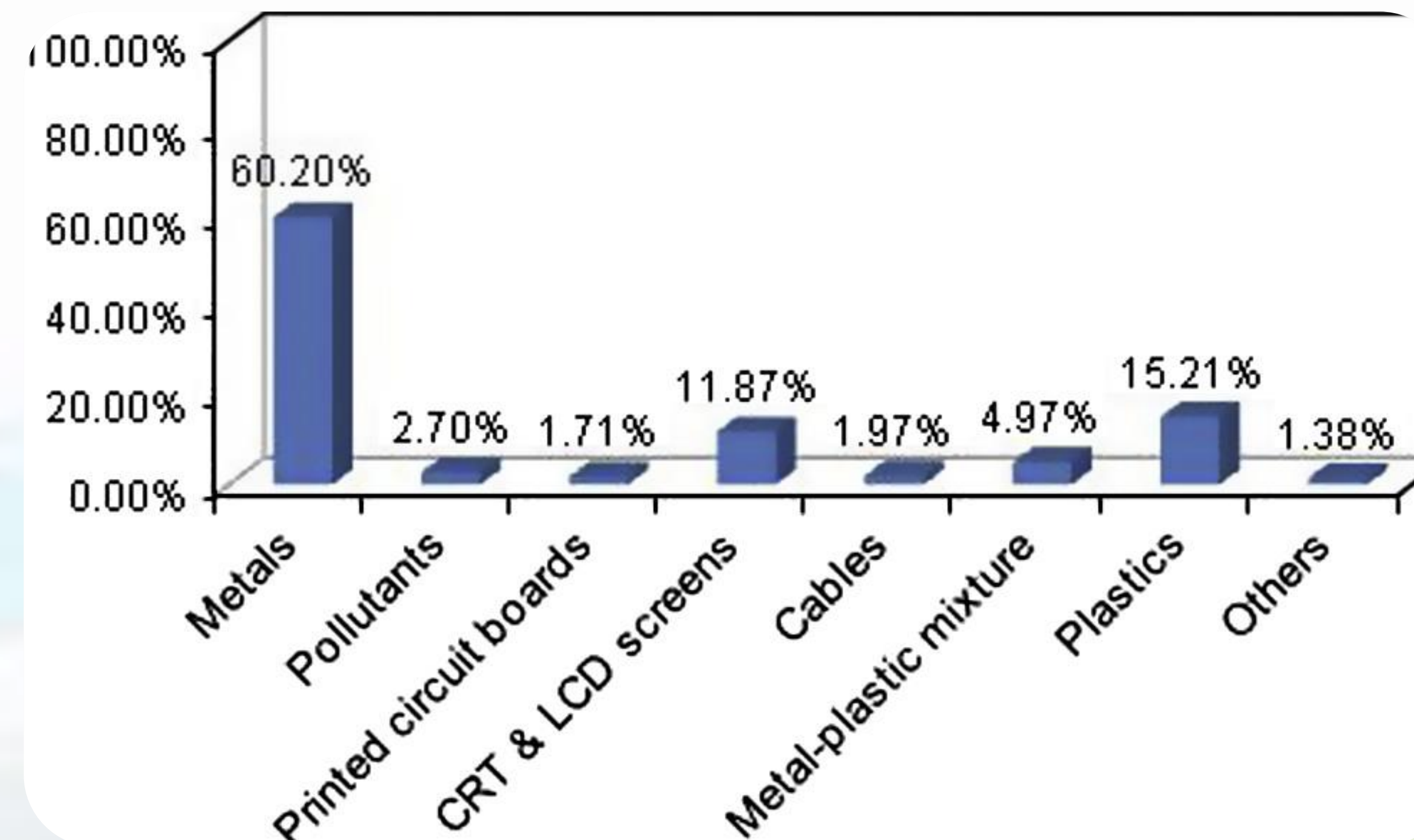
The electronics industry has become one of the fastest-growing sectors in the world. At the same time, large amounts of waste electrical and electronic equipment (WEEE) are generated worldwide, which could bring serious environmental problems. It is estimated that 20–50 tones of WEEE are generated per year and this figure is growing by about 40 million a year. However, WEEE contains not only toxic and hazardous contaminants.

WEEE waste

- | | | |
|---|--|--|
| <input checked="" type="checkbox"/> Monitors | <input checked="" type="checkbox"/> Fans/Heaters | <input checked="" type="checkbox"/> Electronic scales |
| <input checked="" type="checkbox"/> Laptops | <input checked="" type="checkbox"/> Fridges | <input checked="" type="checkbox"/> Cash register |
| <input checked="" type="checkbox"/> Printers | <input checked="" type="checkbox"/> Portable CD Player | <input checked="" type="checkbox"/> Card reader |
| <input checked="" type="checkbox"/> Monitors | <input checked="" type="checkbox"/> Television | <input checked="" type="checkbox"/> Alarm systems |
| <input checked="" type="checkbox"/> Scanners | <input checked="" type="checkbox"/> Electric kettle | <input checked="" type="checkbox"/> Digital camera |
| <input checked="" type="checkbox"/> Fax | <input checked="" type="checkbox"/> Microwave | <input checked="" type="checkbox"/> Video recorder |
| <input checked="" type="checkbox"/> Phones | <input checked="" type="checkbox"/> Food processor | <input checked="" type="checkbox"/> Vacuum cleaner |
| <input checked="" type="checkbox"/> Calculators | <input checked="" type="checkbox"/> Toaster | <input checked="" type="checkbox"/> Power tools |
| <input checked="" type="checkbox"/> Desk Lamps | <input checked="" type="checkbox"/> Coffee machine | <input checked="" type="checkbox"/> Electric lawnmower |

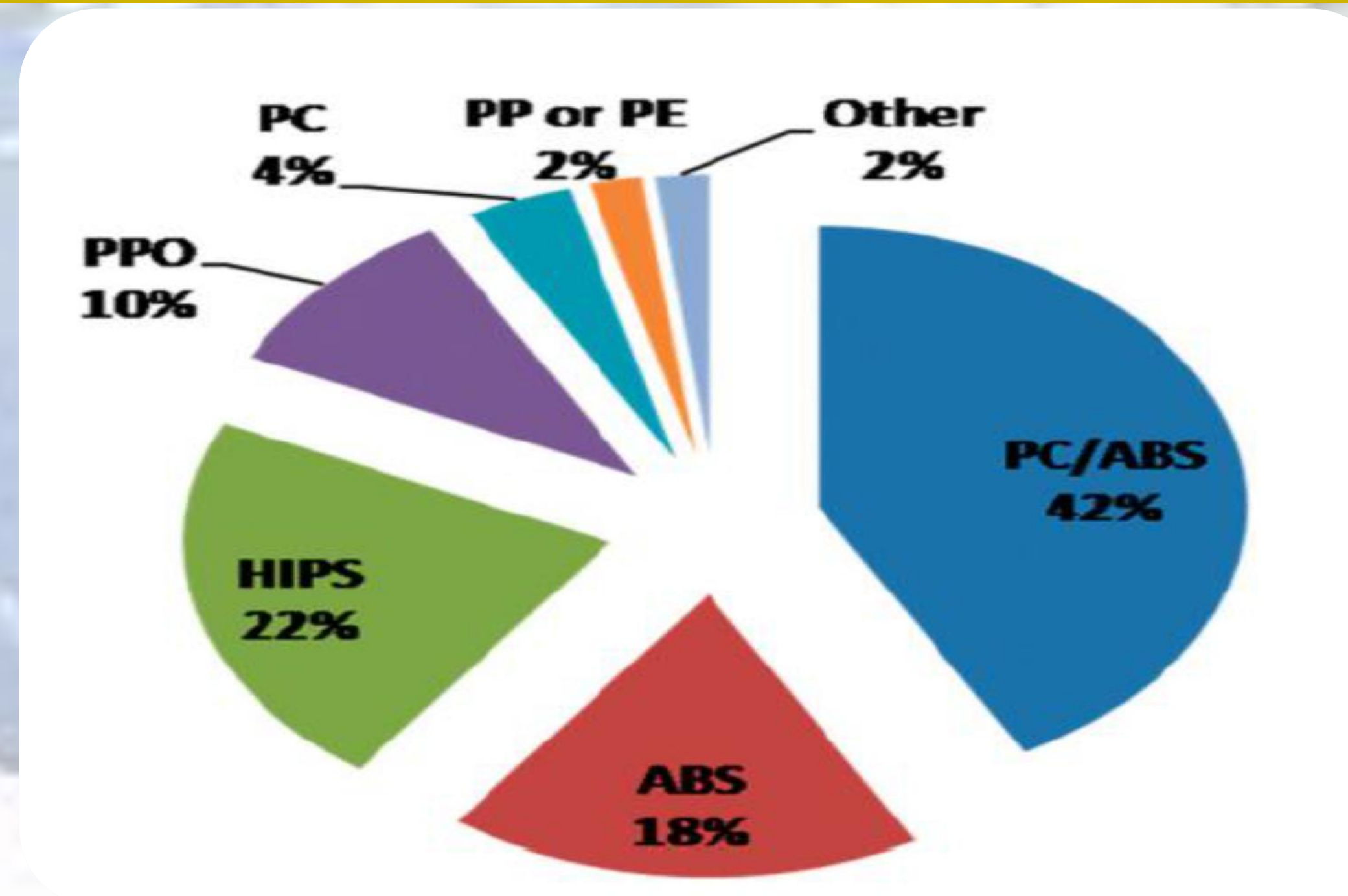
The 3400 items, including cooling appliances, small WEEE, central processing units, copying equipment, printers, CRT monitors and CRT televisions.

Typical material Waste in EEE



WEEE contains a variety of valuable materials, such as metals, glass, plastics and other materials. Much research has been done to recover and reuse the valuable materials of the E-wastes.

Types of Recycling WEEE Plastics



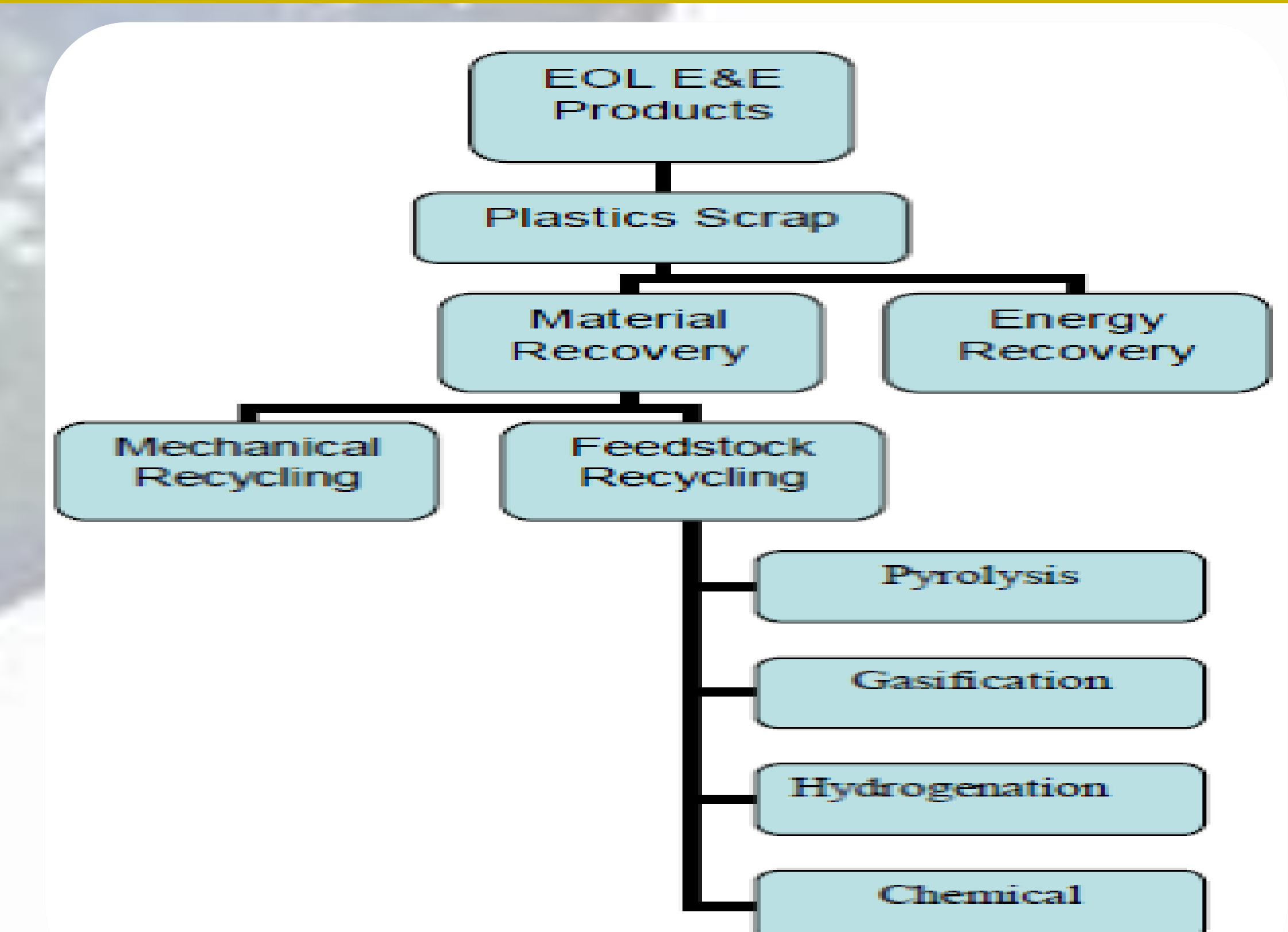
- polystyrene (PS),
- Acrylonitrile–butadiene–styrene (ABS),
- Polycarbonate (PC)
- High-impact polystyrene (HIPS)
- Polyproline (PP)
- Polyvinyl chloride (PVC)

Recycling of plastics from WEEE



WEEE plastics may include more than 15 different polymers which make the recycling process difficult. However, the main problem of the plastics recycling process is the containing of BFRs, (Brominated flame retardant) which might trigger serious environmental pollutions.

Methods of Recycling



Contact information

Stalin.A.
M.Tech., Plastics Technology,
CIPET,
Chennai-32.

Cell number:8870707729

Email address: stalinmech63@gmail.com