
E-Waste Management: Take-Back, Safe Recycling and Material Recovery Training Course

2 – 6 August 2027
Barcelona





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Programme Summary

E-waste management is the subject of this five-day training course for environment, sustainability and operations managers at applied level, ending in an e-waste management plan for one organisation or collection area. Electronic equipment reaches the end of its life faster than collection, treatment and recovery systems are built, and mishandled devices release hazardous substances and confidential data. The approach moves from waste streams and risks, through take-back and treatment, to data security, producer responsibility and recovery value. Mars Training Centre UK delivers this programme in e-waste management for environmental and operations leaders.

The Business Case

Organisations that generate, collect or regulate electronic waste face rising volumes, hazardous components and growing scrutiny of how devices and the data on them are handled. Informal or poorly specified handling creates safety incidents, data exposure and lost value, while structured systems turn a liability into a managed material flow.

- Hazardous Release Incidents: Fall as sorting, storage and treatment controls are specified and checked.
- Recovery Rate of Materials: Rises as collection quality and treatment routes are matched to the content of each stream.
- Data Exposure Risk: Narrows as sanitisation and chain-of-custody steps are built into every collection route.

Principles and Evidence Base

- Basel Convention Technical Guidelines on E-Waste: Their principles on environmentally sound management frame the treatment and transport review in Sessions 2 and 3.
- ITU-T Recommendation L.1021 on Extended Producer Responsibility: Its guidelines for sustainable e-waste management shape the producer responsibility design in Session 4.
- Waste Hierarchy: Its priority order of prevention, reuse, recycling and disposal structures the option appraisal in Sessions 1 and 5.

Intended Participants

- Leaders accountable for waste, environmental performance or sustainability targets in an organisation.
- Managers who run collection, logistics or treatment operations for electrical and electronic equipment.
- Officials who design, oversee or enforce waste programmes for public bodies.



- Managers who procure, retire and dispose of large volumes of devices and the data they hold.

The programme serves environment agencies, municipal waste services, telecommunications and technology firms, and manufacturing and retail organisations.

Learning Outcomes

1. Participants will be able to classify e-waste streams by composition, hazard and recovery potential.
2. Participants will be able to design a take-back scheme with collection points, logistics and storage controls.
3. Participants will be able to evaluate treatment routes against safety, environmental and recovery criteria.
4. Participants will be able to diagnose hazardous component and data security risks along the chain of custody.
5. Participants will be able to justify a producer responsibility arrangement for a defined product group.
6. Participants will be able to prioritise recovery and reuse options using a simple material and cost balance.

Programme Structure

Day 1: E-Waste Streams and Management Principles

What does the organisation or area actually generate, and how is it ranked?

- Waste Hierarchy Applied to Electronics
- E-Waste Category and Stream Classification
- Generation Estimation From Sales and Stock Data
- Informal Sector Mapping and Risk Review
- Environmental and Health Impact Pathways

Day 2: Collection and Take-Back Design

How do devices reach safe treatment instead of drawers, landfills or informal dealers?

- Take-Back Scheme Design Options
- Collection Point Siting and Capacity Model
- Reverse Logistics and Transport Controls
- Storage and Fire Safety Checks for Batteries
- Consumer and Business Return Incentives

Day 3: Safe Treatment, Recycling and Hazardous Components

Which treatment route removes hazards and recovers the most value?



- Basel Convention Guideline Checklist for Treatment Facilities
- Hazardous Component Handling for Batteries, Screens and Refrigerants
- Dismantling, Shredding and Separation Process Maps
- Material Recovery Balance for Metals and Plastics
- Treatment Facility Audit Questionnaire

Day 4: Data Security and Producer Responsibility

Who is accountable for the device, the data and the cost of end-of-life management?

- Data Sanitisation Methods for Storage Devices
- Chain of Custody Records and Certificates of Destruction
- Extended Producer Responsibility Models
- ITU-T L.1021 Guideline Mapping
- Producer Responsibility Fee and Funding Flow Diagram

Day 5: Applying E-Waste Management to an Organisation

Is the plan ready for approval by management or an oversight body?

- Applying Day 1 Classification to Local Stream Data
- Selecting Day 2 Collection Options for the Chosen Area
- Testing Day 3 Treatment Routes Against Recovery Targets
- Setting Day 4 Data and Responsibility Controls
- Completing the E-Waste Management Plan

Methodology

The programme is built around case analysis and structured exercises. Participants work with anonymised cases from public authorities, technology firms and retailers, classify sample waste inventories and audit a treatment process against checklists. Peer discussion focuses on trade-offs between cost, safety, data protection and recovery value in different settings.

- Suggested activity: Classifying a sample inventory of discarded devices by stream and hazard.
- Suggested activity: Auditing a mock treatment facility process map against a guideline checklist.
- Suggested activity: Presenting a take-back scheme proposal to a simulated oversight body.

Capstone Output

Each participant completes an e-waste management plan for one organisation or collection area. It contains a stream and generation profile, a take-back design, a treatment route selection, a data security and chain-of-custody procedure, a producer responsibility proposal and a recovery balance. It is used to brief senior management and to prepare a first request for funding or approval.



Frequently Asked Questions

Is e-waste management training suitable for managers without a technical recycling background?

Yes. It is set at applied level for managers and officials who plan and oversee e-waste systems, and assumes general operations or environmental experience rather than engineering knowledge of recycling plants.

Which guidelines does the e-waste management programme rest on?

It rests on the Basel Convention technical guidelines on e-waste, ITU-T Recommendation L.1021 on extended producer responsibility and the waste hierarchy, applied to cases rather than recited.

How is the e-waste management plan used at work?

You can take it to senior management or an oversight body as the basis for decisions on collection, treatment routes, data security controls and producer responsibility arrangements.

How does e-waste management differ from a programme on hazardous waste stewardship?

E-waste management concentrates on electrical and electronic equipment, take-back, data security and material recovery, while hazardous waste stewardship covers classification and disposal across all hazardous waste types.