

WEEE / TEXTILE WASTE SERVICES IN TURIN: STATE OF THE ART AND DATA GAPS

EU Legislative framework

WEEE

Directive (EU) 2012/19 on waste electrical and electronic equipment (WEEE)

AIM. To protect the environment and human health by encouraging sustainable production and consumption through:

- Reduction of electrical and electronic equipment waste (WEEE);
- Promotion of reuse, recycling and other ways of recovering waste from electrical and electronic equipment (EEE);
- Support on efficient use of resources and recovery of valuable secondary raw materials.

KEY POINTS. EU Countries must:

- Encourage cooperation between producers and recyclers to produce electrical equipment which can be reused, dismantled or recovered in line with the ecodesign directive (Directive 2009/125/EC);
- Minimise the amount of WEEE that finishes together with unsorted waste;
- Allow private households and distributors to return WEEE free of charge;
- Ban the disposal of collected WEEE that has not been properly treated;
- Ensure a minimum annual amount of collected WEEE. In 2016, this represented approx. 45% of the total of electrical and electronic equipment sold in the past 3 years. From 2019, this target has increased by 65%.
- Require producers to:
 - meet minimum treatment targets for different WEEE categories;
 - finance the cost of collection, treatment, recovery and environmentally sound disposal of products on sale from 13 August 2005;
 - provide information to the public on how WEEE can be returned and collected.

Until September 22, it is possible to participate in the online public consultation on the Waste Electrical and Electronic Equipment (WEEE) Directive. This initiative will evaluate the progress made under the Directive. (Waste from electrical and electronic equipment – evaluating the EU rules).

TEXTILES

The **EU strategy for sustainable and circular textiles** defines a vision and lists concrete actions to ensure that **by 2030 textile products placed on the EU market are recyclable and long-lasting**, made as much as possible from **recycled fibres, free of hazardous substances and products**, in accordance with social and environmental rights. Consumers will benefit from high-quality textiles, fast fashion will go “out of fashion” and be replaced by **cost-effective and efficient reuse and repair services**. In a competitive, resilient and innovative textile industry, manufacturers must take responsibility for their products along the entire value chain, even when goods become waste. In this way, a circular textile ecosystem will be thriving and driven by sufficient capacity **to ensure innovative recycling and reuse of fibres, minimising incineration and textiles landfills**.

Specific measures will include **eco-design requirements for textile production, more transparent information, a digital product passport and extended liability for EU producers**. Measures are also foreseen **to contrast the inadvertent release of microplastics from textiles, ensure the accuracy of ecological declarations and promote circular business models, including re-use and repair services**.

To address the issue of fast fashion, the EU strategy also calls on companies **to reduce the number of collections per year, to assume their responsibilities and to take action to minimise the environmental and carbon footprint**, and calls on the Member States to take favourable fiscal measures in the area of re-use and repair.

The Commission will also promote this transition with the help of awareness-raising campaigns.

Directive (EU) 2018/851, amending the Directive 2008/98/EC on waste.

KEY POINT. EU countries are obliged to collect textile waste separately by 2025.

Italian Legislative framework

WEEE

Ministerial Decree 185/2007, which establishes the **management bodies of the WEEE system** such as the **National Register of Entities** which is obliged to **finance WEEE management systems**, the **WEEE Coordination Centre** and the **Steering Committee on WEEE management**.

Ministerial Decree 65/2010, which introduces a **simplified management scheme for WEEE disposal through collection services in charge of distributors** as well as a net of **technical assistance centres and installers**. The Decree is the foundation for a more

rounded technological waste collection and recovery system, in order to **increase the quantities collected, reused and recovered**.

KEY POINT. The official distributors that are registered on the Commercial Register, when selling electronic/electric equipment to a household, shall ensure that **any replaced equipment is taken back, free of charge (principle of 1 against 1: 1 item sold, 1 item/waste collected)**. Distributors are also required to inform consumers that WEEE collection service is free of charge.

Retailers and distributors have to communicate in a clear and immediate way such an opportunity, also through posters in easily readable characters on business premises and other communication actions.

Legislative Decree 49/2014 (latest update 21/04/2023), which transposes the **Directive 2012/19/EU**.

Ministerial Decree 121/2016, which **disciplines the procedures** for carrying out the **free collection service** by distributors and retailers also of **small electrical and electronic waste (WEEE)**, as well as the **technical requirements for the deposit and transport**.

KEY POINT. **Distributors must retire small WEEE** conferred by final users **with no obligation to buy any new product (principle of 1 against 0: 1 item returned, 0 item bought)**.

TEXTILES

Legislative decree 116/2020, which transposes the **Directive 2018/851** to start working on the compulsory goal of **ensuring textile separate collection by 2022**.

Law 116/2016, introducing **new rules for the recovery of clothing waste**, in order to **re-use** them for social purposes.

KEY POINT. Goal of the law is to encourage the recovery and donation of medicines, pharmaceuticals but also other products, such as clothes and other textiles, for **social solidarity**.

Legislative decree 36/2003, which transposes the **Directive (CE) 1999/31 on waste landfills**.

KEY POINT. This Decree ensures a **progressive reduction** of waste deposited in landfill. In particular, it works to identify waste suitable for recycling or other recovery methods in order to support the transition towards a circular economy. Moreover, it provides, by introducing operational and technical requirements for waste and landfills, a series of

measures, procedures and guidelines to prevent or reduce as much as possible the negative effects on the environment, as well as health risks related to landfills.

Regional tools

The Piedmont Region, in order to ensure an efficient and thorough urban waste management acquires needed information through the **Regional Waste Information System (SIRR)**.

- **PRUBAI - Regional Plan for the Management of Urban Waste and Remediation of Polluted Areas.** The Plan has a medium-long term perspective (until 2035, with intermediate steps planned for 2025 and 2030). It takes into account national and local objectives to be achieved.

The main goals to achieve by 2035 are:

- ❖ Reduction of the total production of waste;
- ❖ Increase of the percentage of separate collection to 82%;
- ❖ Improvement of the quality of the sorting services in order to achieve a recycling rate of 65% at national level;
- ❖ Reduction in the production of residual municipal waste to 90 kg/year.

- **Data on waste production.** In 2017 the Regional Council approved a new standardised method for the calculation of the percentage of separate collection of urban waste, aligning with national standards.

Through the digital platform **Open Data** (available only in Italian), which is dedicated to the **dissemination of public data**, it is possible to **access and download data on waste collection**. Users can simply use the search engine, by inserting one of the following keywords: "*%rd*", "*rifiuti*", "*produzione rifiuti*", "*raccolta differenziata*".

To make the above data more easily accessible, an information service has also been created. It is called **Dashboard of Environmental Knowledge (Cruscotto delle Conoscenze Ambientali)** - available only in Italian) and it is aimed to inform both Public Administration and citizens. Summary and easy information are gathered and clustered for different levels (region - province - consortium - municipality) in the format of interactive tables and graphs to highlight different aspects of the data acquired over the years.

The **Environmental Knowledge System platform** is another entry point to consult some key indicators related to waste management through geographical identification (WMS services).

- **Acquisition of data on waste production.** Since 2017, the "**Yucca**" platform, available only in Italian, is the place to gather relevant data on waste collection. The platform is an initiative of the Piedmont Region in collaboration with the in-house company CSI-Piemonte.
Yucca allows the **import, processing, management and sharing of data between public and private entities**. Access to the platform is possible via digital certificate/SPID (digital identification services) and it is reserved for authorised users.
- **Waste authority:** Regione Piemonte is involved in regional planning on waste management, setting targets, guidelines and providing funds; Città Metropolitana di Torino (CMTO) deals with issuance of plant authorisations, local planning on waste, contributions and data collection; City of Turin is the responsible for urban waste management in the city area. Amiat S.p.A (part of the multiservice IREN group) is the authorised collection company for the City of Turin.
- **Collection services:** active for different types of waste and in different formats (door-to-door, dedicated bins, collection centres and collaboration with social enterprises)
- **Monitoring and data collection:**
 - Amiat ([here](#) data on recycling services per year, district, category of waste)
 - City of Turin ([here](#) waste data & useful info from "informambiente.it")
 - [Città Metropolitana](#) (CMTO)
 - [Lavoro e Solidarietà scs](#) (for textiles collected by this cooperative)
 - [TBD](#) (for WEEE)
 - [CdC RAEE](#) (for WEEE)

Collected data on urban waste (no special waste) are funnelled on [Yucca Smart Data platform](#) by Osservatorio rifiuti regionale. Amiat shares monthly data per category, then, the city's environment department feeds the platform using the standard path.

> CTE NEXT can offer free support to discover the above-mentioned platform.

TEXTILES - CITY OF TURIN

In the city of Turin, there is an established collection service for used clothing, shoes, bags and other accessories. The items are collected through [423 dedicated bins placed on public streets](#) (source: [La tua differenziata, Città Metropolitana di Torino](#)).

Collected materials (that have to be in good conditions) are periodically selected and directed towards the main destination facility: "[Lavoro e Solidarietà scs](#)", based in Verolengo (in the province of Turin). In 2022, the facility received 1991 tons of textile waste (EER 20.01.10), whilst in 2021 the total amount of collected textiles was 2033 tons (no data

available for EER 20.01.11 and 15.01.09). For the first trimester of 2023, Amiat (the waste collection provider) signals 444,48 tons of textiles collected (source: [Amiat](#)).

Most of the materials collected by Lavoro e Solidarietà scs, are intended for reuse purposes (60%) (source: Lavoro e Solidarietà).

It is also possible to hand over, free of charge, textile waste in any of the [7 Collection Centres](#) dedicated to domestic waste products within Turin.

AVAILABLE DATA:

- Collected quantity and typology from the city (dedicated bins, collection centres)
- Percentage of textiles that Lavoro e Solidarietà distributes for reuse (some more data on final destination might be useful)
- Quantity (tons) of textiles that Lavoro e Solidarietà receives annually from the waste collection provider Amiat

MISSING DATA:

- list/map of entities (private, social) collecting/reusing textiles within the city's boundaries
- quantity of textiles by second-hand shops, charities and other entities that is not reused, and their final destination (missing data on final destination)
- data related to spontaneous collection initiatives from citizens or organisation
- data on private clearance services
- data or estimates on end-of-life products/materials that can potentially be intercepted before they become waste

POSITIVE TRENDS:

- efficient net of collection points around the city
- Growing trends of quantities collected in street bins
- good number of second hand shops, informal "vintage" markets and swap parties
- general interest and sensibility of the population on the matter
- Italy, thanks to Legislative Decree 116/2020, has moved three years ahead of the European obligation to separately collect textile waste

NEGATIVE TRENDS:

- second-hand clothes are considered as dirty and not "fancy" by a large part of the population

- textiles not in good condition are sometimes not correctly disposed of
- legislative framework that does not favour reuse and changing at EU level

WEEE - CITY OF TURIN

Citizens can put their electronic waste in dedicated collection centers (ecocenters, as mentioned above) spread throughout the metropolitan area (7 ecocenters open to citizens). In addition, since 2016, it is mandatory for retail stores and shopping centers to collect electrical and electronic waste (including small WEEE). In fact, commercial businesses within an area of more than 400 square meters have the obligation to collect small WEEE, even without the purchase of new equipment (Dm Ambiente, 31 May 2016, n. 121).

The staff of WEEE national coordinating centre (CdC) periodically collects WEEE waste deposited in retail and shopping centres, free of charge (no data available for the City of Turin). For large WEEE, free pick-up service at home is active and offered by the local waste collection provider (free of charge for maximum 5 items at a time). The main destination facilities of such bulky waste are "AMIAT TBD" based in Volpiano (1115 tons of WEEE collected only in the city of Turin in 2022) and members of CdC (1317 tons collected only in the city of Turin in 2022, mostly R1 and R5 WEEE); with a total of 2432 tons of WEEE (EER 20.01.23, 20.01.35, 20.01.36, 20.01.21) collected in the urban area of Turin by the local waste contractor (source: City of Turin).

An ongoing pilot action by Amiat is currently in place in one district of Turin (map). In fact, the waste collection provider has placed small, dedicated bins in proximity shops and stores of the target area and launched a local communication campaign to encourage the disposal of R4 WEEE products (3000 kilos per year collected on average since 2016 for the pilot district) (source: report of pilot action on district 8).

In 2021 (latest official data available from CMTQ), the city of Turin collected 2555 tons of WEEE (3 kg/inhabitant); in the same year, the national average was about 6.46 kg/inhabitant (source: Città Metropolitana di Torino).

For the first trimester of 2023, the tons of WEEE collected are 701,34 (source: Amiat).

AVAILABLE DATA:

- Quantity and typology of domestic WEEE collected from the city
- collected quantity through door-to-door services, bins and collection centres (Amiat, City)

MISSING DATA:

- list/map of entities (private, social) collecting/potential reusing (before they become waste) WEEE (or part of the materials) within the city's boundaries
- quantity WEEE collected by CdC in shopping centres and other retails

- quantity of small WEEE retained in households
- Amount of professional WEEE produced in the city area
- data on private clearance services
- data or estimates on end-of-life products/materials that can potentially be intercepted before they become waste

POSITIVE TRENDS:

- free of charge collection
- general interest and sensibility of the population on the matter
- legislative framework favouring disposal and collection of WEEE

NEGATIVE TRENDS:

- legislative framework that does not favour reuse
- difficulty in calculating kg/inhabitant for small WEEE (lack of average weight/categorisation)

EDUCATION AND AWARENESS INITIATIVES

Please find here some examples of communication campaigns and awareness initiatives (past few years) in Turin:

- Activities in schools and open-air markets by Lavoro e Solidarietà scs (textiles)
- Communication campaigns by CdC RAEE (WEEE)
- School activities and dedicated materials by CdC RAEE (WEEE)
- App my RdR for WEEE collection by CdC RAEE (WEEE)
- Pilot project on Circoscrizione 8 (small WEEE)
- Remida Centro di Riuso Creativo - website (ITA) and leaflet (ENG)
- DifferenziamoLo Strano (University of Turin)
- Ri-portalo in circolo (University of Turin with Coop. Esserci)
- Spritz del Riuso (Tavolo del Riuso)

Spreading information and promoting ongoing initiatives would increase the impact of such activities.

Other useful links:

- http://www.comune.torino.it/ambiente/rifuti/cosa_rifuti/abiti-usati.shtml
- <https://www.amiat.it/>