Circular Economy Solutions for ITAD: Reuse, donation & recycle



















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- Data on and risks of e-waste
- Composition of electronic devices
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History of OMTRA

SINCE 1956...











1956

OMTRA Società Benefit was born from the intuition of Silvio Spadoni, who introduced external logistics for multinationals in Italy.



1979

It is the first company to introduce external archives for companies in Italy with European and American ethics and standards.



1993

Giorgio Spadoni, CEO of OMTRA, becomes member of Arma and i-Sigma, and in the international committee for the new Information Governance Standards.

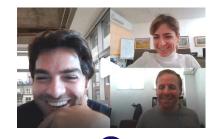


2004

Giorgio Spadoni becomes VP for Transport, Logistics and Infrastructures, and member of the Board of Directors of Assolombarda.



Giovanna Spadoni, General Manager of OMTRA, after field studies in the USA and Ireland, offers advice on Information Governance, Secure Destruction and Digital Transformation.



...TO TODAY

2019

Giovanna becomes a member of the Board of i-Sigma International and is elected as the best active member of the year.

2021

OMTRA becomes a Benefit Company and launches a process aimed at corporate social responsibility and environmental sustainability.

2022

Giovanna, re-elected Member of the Board of iSigma, and Giorgio, give three speeches about sustainability in panel discussions at the annual Conference in the USA

2023

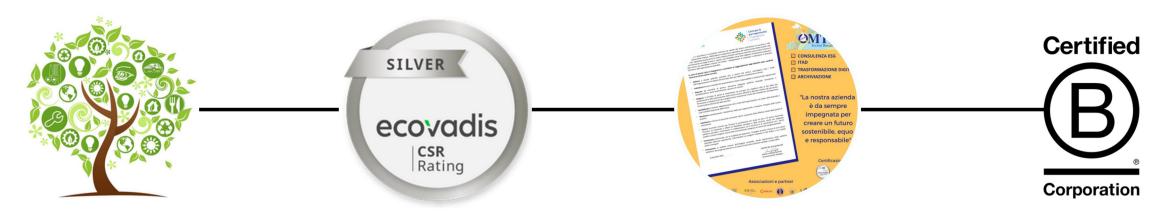
OMTRA creates an ESG+S (ESG + Security) Team to serve itself, companies and the local and international community with new and innovative services.



ESG CERTIFICATIONS

Our company has sustainability at heart:

Starting by measuring the impact of our services, OMTRA designed and implemented new, innovative and regenerative processes for the environment and the community.



2021

OMTRA becomes a **Benefit Company** and solodifies its commitment to society and the environment in its corporate statute

2022

OMTRA obtains **EcoVadis**Certification, that judges
the company's ESG efforts
in its supply chain and
business partners

2022

OMTRA adheres to the
Italian Charter for Equal
Opportunities. joining an EUwide network of companies
committed to encouraging
diveristy and reducing
inequalities.

2023

OMTRA becomes **B Corp**certified, with a final score of
95.2 (above the Italian and
European averages), the first
company in its industry.





SCORE

Workers

24.5

Workers evaluates a company's contributions to its employees' financial security, health & safety, wellness, career development, and engagement & satisfaction. In addition, this section recognizes business models designed to benefit workers, such as companies that are at least 40% owned by non-executive employees and those that have workforce development programs to support individuals with barriers



SCORE

Environment

Environment evaluates a company's overall environmental management practices as well as its impact on the air, climate, water, land, and biodiversity. This includes the direct impact of a company's operations and, when applicable its supply chain and distribution channels. This section also recognizes companies with environmentally innovative production processes and those that sell products or services that have a positive environmental impact. Some examples might include products and services that create renewable energy, reduce consumption or waste, conserve land or wildlife, provide less toxic alternatives to the market, or educate people about environmental problems.

OVERALL B IMPACT SCORE

Based on the B Impact assessment, OMTRA S.r.l. Società Benefit earned an overall score of 95.2.

The median score for ordinary businesses who complete the assessment is currently 50.9.



- Overall Impact Score
- 80 Qualifies for B Corp Certification
- 50.9 Median Score for Ordinary Businesses







IMPACT AREA

SCORE

Governance

Governance evaluates a company's overall mission, engagement around its social/environmental impact, ethics, and transparency. This section also evaluates the ability of a company to protect their mission and formally consider stakeholders in decision making through their corporate structure (e.g. benefit corporation) or corporate governing documents.



IMPACT AREA

SCORE

Customers

3.9

Customers evaluates a company's stewardship of its customers through the quality of its products and services ethical marketing, data privacy and security, and feedback channels. In addition, this section recognizes products or services that are designed to address a particular social problem for or through its customers, such as health or educational products, arts & media products, serving underserved customers/clients, and services that improve the social impact of other businesses or organizations.



IMPACT AREA

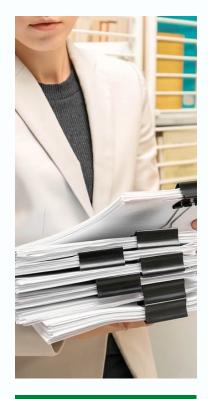
Community 18.5

Community evaluates a company's engagement with and impact on the communities in which it operates, hires from, and sources from. Topics include diversity, equity & inclusion, economic impact, civic engagement, charitable giving, and supply chain management. In addition, this section recognizes business models that are designed to address specific community-oriented problems, such as poverty alleviation through fair trade sourcing or distribution via microenterprises, producer cooperative models, locally focused economic development, and formal charitable giving commitments.

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OUR SERVICES













ITAD: IT Reuse & Recycle ESG + S Advisory Current and historic archiving

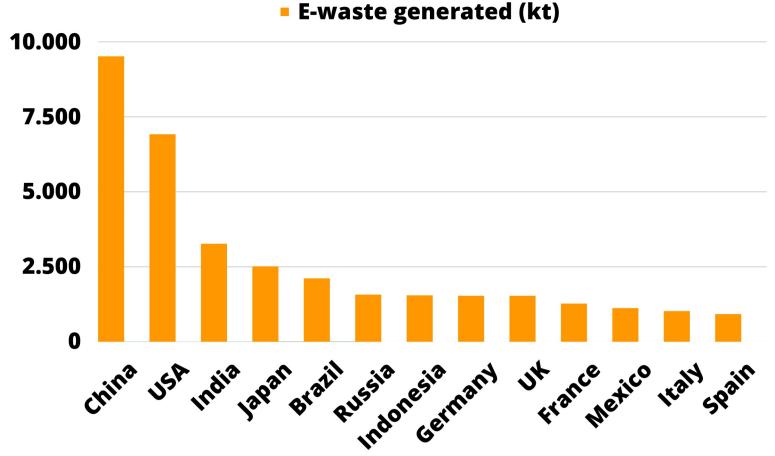
Certified Destruction Cyber Security & Tape Vaulting

Digital Transformation



DATA ON E-WASTE

According to the latest data of the Global Waste Monitor (a UN initiative), in **2019** around **53,6 million tons** of E-waste were generated globally, a number that according to predictions is destined to **increase to 74,7 million in 2030** and **110 million in 2050**.







RISKS OF E-WASTE

E-waste can be a source of toxic substances, such as:

- Heavy metals, such as mercury (Hg), cadmium (Cd), arsenic (As), chromium (Cr), thallium (Tl), and lead (Pb); and
- Persistent organic pollutants, including polycyclic aromatic hydrocarbons (PAHs), polychlorinated biphenyls (PCBs), brominated flame retardants (BFRs), etc.

E-waste dumped in landfills pollutes the environment through leaching into soil and groundwater.

Incineration creates **emissions** into the surrounding **air, soil, and surface water**, ultimately **affecting human health**.



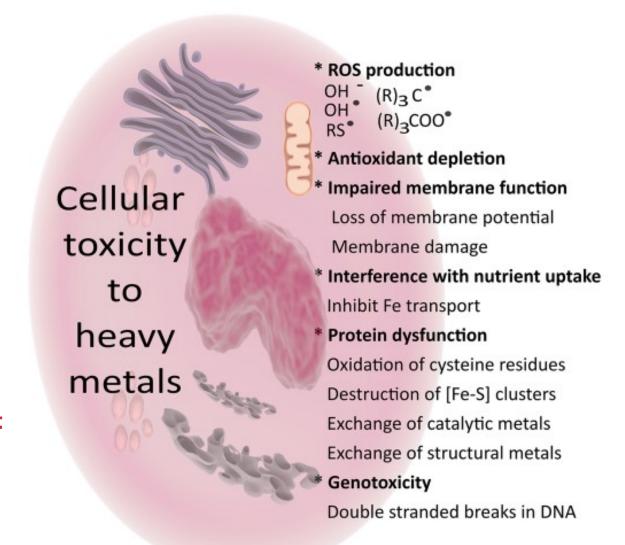
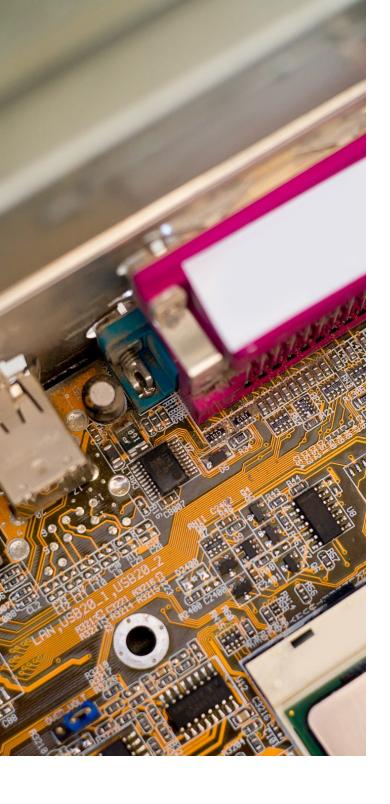


Fig. 2. Toxicological mechanisms of heavy metals in humans. Exposure to heavy metals result in generation of reactive oxygen species (ROS) which may lead to depletion of antioxidants, alteration of enzyme and protein function, damage to the cell membrane, interference in the activity of transporters and genotoxicity.



COMPOSITION OF E-DEVICES



From a material design perspective, electronic equipment is very complex and composed of many parts.

Up to 69 elements from the periodic table can be found in such devices, including:



- Precious metals (e.g. gold, silver, copper, platinum, palladium, ruthenium, rhodium, iridium, and osmium),
- Critical Raw Materials (CRM) (e.g. cobalt, palladium, indium, germanium, bismuth, and antimony), and
- Non-Critical Metals, such as aluminium and iron.



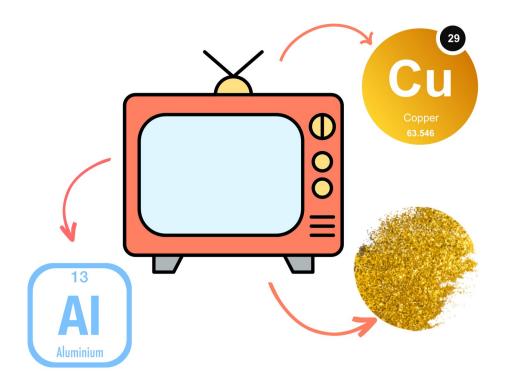
The materials used can be recovered by **recycling processes** to reuse in future production, as valuable raw materials.



E-WASTE OPPORTUNITIES

Metal, plastic, glass and rare earth elements in e-waste are valuable secondary resources.

- A typical cathode-ray tube contains approx.
 450 g of Cu, 227 g of Al and 5.6 g of Au
- A metric ton of personal computers may contain more gold than that recovered from 17 metric tons of gold ore







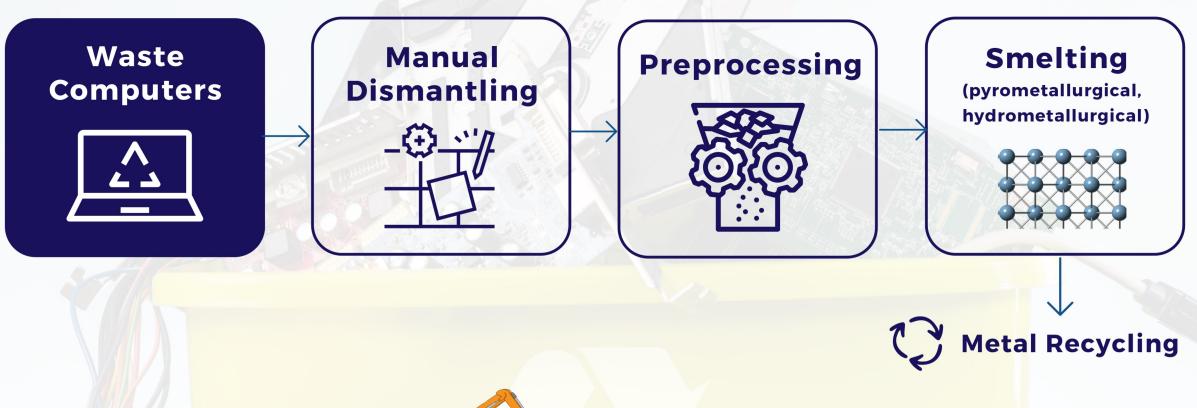
TOKYO 2020 OLYMPIC MEDALS: MADE FROM E-WASTE

A total of **78,985 tons** of **discarded electronic devices** were collected, including approximately **6.21 million used mobile phones**, along with digital **cameras**, handheld **games** and **laptops**, all of which were **dismantled** and **melted down** by highly trained contractors.

A total of 30.3kg of gold, 4,100kg of silver and 2,700kg of bronze were reused!



THE RECYCLING PROCESS











01. Manual **Dismantling**



No 1

No 2

No 3

No 4

No 5

No 6

No 7

No 8

No 9

No 10

No 11

No 12

No 13

Total





Weight (g)

6571

306

44

564

253

109

2595

251

338

463

461 104

1146

13205

Material composition of dismantled desktop (Kida, 2010)

Name of component

Metal (Outer frames)

Memory Module (2 pieces)

Plastic

Screws

CPU

Wires

CD drive

Floppy drive

Power boards

Hard drive

Mother board 1

Mother board 2

Graphics card



Power Supply box

Weight (%)

49.8

2.3



Motherboard



CPU (Intel pentium)



Memory modules

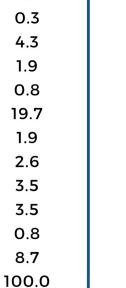


PCI card

CD/DVD drive

Floppy disk drive

Hard drive





Cables







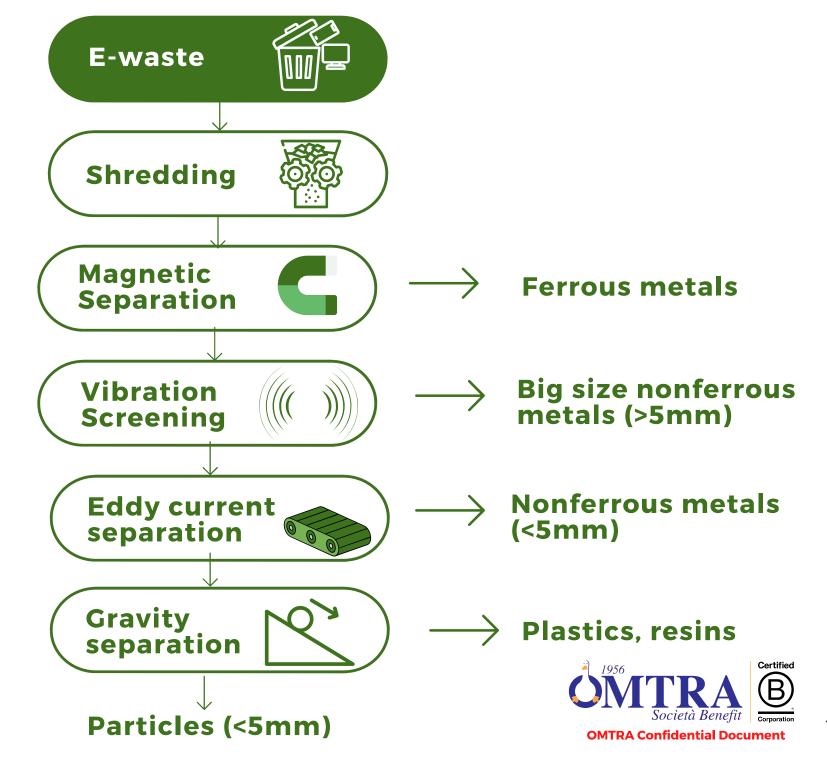
Connectors

02.

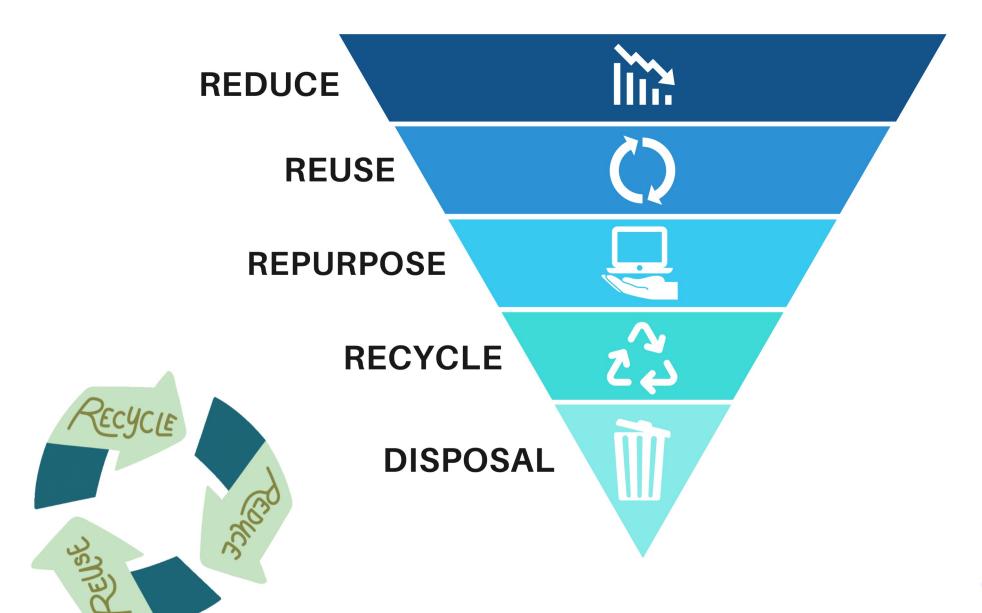
Preprocessing







OMTRA'S ITAD HIERARCHY



OMTRA'S PROCEDURE collect test Reuse wipe sell or donate **E-WASTE** collect test Recycle dismantle (separate hazardous components following safety guidelines) Certified recycle **OMTRA Confidential Document**

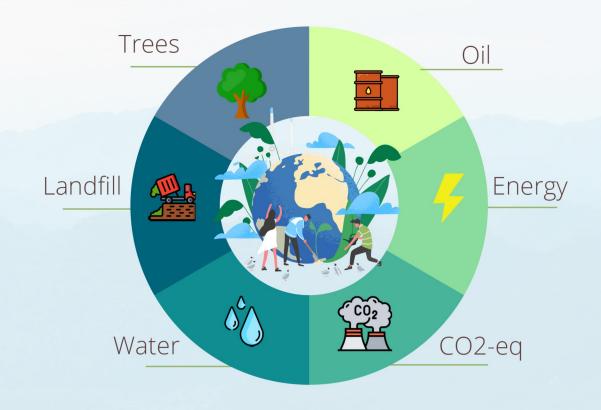
GREEN REPORT

The **Green Report** indicates the positive impact of reused and recycled IT materials on our planet, in terms of safeguarding the ecosystem.

Drafted by our Circular Economy Manager, the Green Report translates the positive environmental effects into indicators of immediate understanding (eg: quantity of trees, m3 of water, CO2 emissions, landfill space, etc.).

The Green Report is supplied together with our attestation of destruction and/or certification of data erasure, and is useful for enriching the Annual Financial Report, EU-mandated Non-Financial Declarations, and Sustainability Reports and Benefit Company Impact Reports.

By recycling, you saved...





OMTRA'S EFFORTS TOWARDS THE COMMUNITY

Since its foundation over 65 years ago, OMTRA Società Benefit has always had the welfare of the community at heart, giving jobs in the past to 30+ people with difficulties lacking employment.

OMTRA believes that companies play a key role in the process of creating social value within cities and communities.

Our efforts have been made concrete, with the following examples recognized by the press over several decades.





Un impeano concreto per il pianeta e per la comunità

OMTRA È LA PRIMA



54 SABATO 8 MAGGIO 200

L'esperienza Omtra al convegno sulla responsabilità sociale delle aziende

«Offriamo un lavoro agli ex carcerati»

imprenditori brianzoli con soddisfar





CORRIERE DELLA SERA 48 GIOVEDÌ 3 OTTOBRE 1991

Il fortino delle carte top-s





OUR ITAD MISSION

We want to **raise awareness** about the problem of e-waste, creating a **cultural shift** to promote the **reuse and recycling** of electronic devices with our innovative services.

A COMMITMENT TO THE FUTURE

- We are passionately engaged for a sustainable future to improve the economic, social and environmental wellbeing of the surrounding communities.
- We are **"gas-free"**, **plastic free** and have projects to become energy independent in the near future.
- We offer sustainability consultancy for impact measurement and certifications (B Corp, EcoVadis, ecc.)

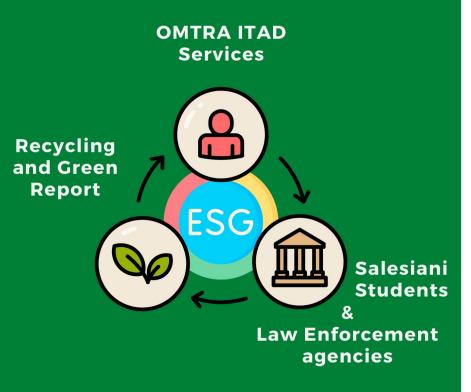




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Reuse and donation of PCs:

Attention to the surrounding community



- OMTRA purchases corporate PCs and phones, deletes their data with certified software, and donates I out of 20 devices to the Salesian Schools in Arese or Law Enforcement Agencies.
- A **Circular Economy** process as the device returns to being a tool for study/work, or is recycled meaning it is no longer waste and becomes easier to manage.
- Destroying obsolete electronic equipment is costly and may have negative environmental impact, while this opportunity generates revenue and helps communities,
- This way, companies can support law enforcement agencies and schools by donation, giving a concrete sign of appreciation for their valuable work and support.



WORKING TOGETHER WORKS





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