



E-WASTE: PRODUCERS VS CONSUMERS

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ECOLOGICA

Ecologica works in the following areas:

- Recycling of e-waste from the corporate and public sector;
- Increasingly intensive e-waste service by home users;
- Creating curricula to strengthen technological competence and environmental culture for schools and start-ups;
- Consultations for businesses to improve the sustainability of their business and strengthen environmental responsibility;
- Trainings and consultations on the rules and good practices in e-waste management;
- Monthly information bulletin for compliance on legal requirements.

Our profile

Subscription contracts for a period of 1 to 3 years, delivering on schedule or on request

Transport and recycle all types of discarded computer and office equipment, assets (equipment and furniture), industrial waste and technological waste

With an excellent information system and specialized vehicles, we are able to guarantee professional service and full accountability.

We transport and recycle all types of discarded computer and office equipment, assets (equipment and furniture), industrial waste and technological waste.

What waste we recycle?

- Computer and office equipment;
- Mobile phones;
- Toners;
- Accumulators and batteries;
- Audio and video equipment;
- Large and small household appliances;
- Vending machines;
- Toys and equipment for entertainment and sports;
- Power tools;
- Industrial machines and devices;
- Spare parts and technological waste;
- Production and hazardous waste.

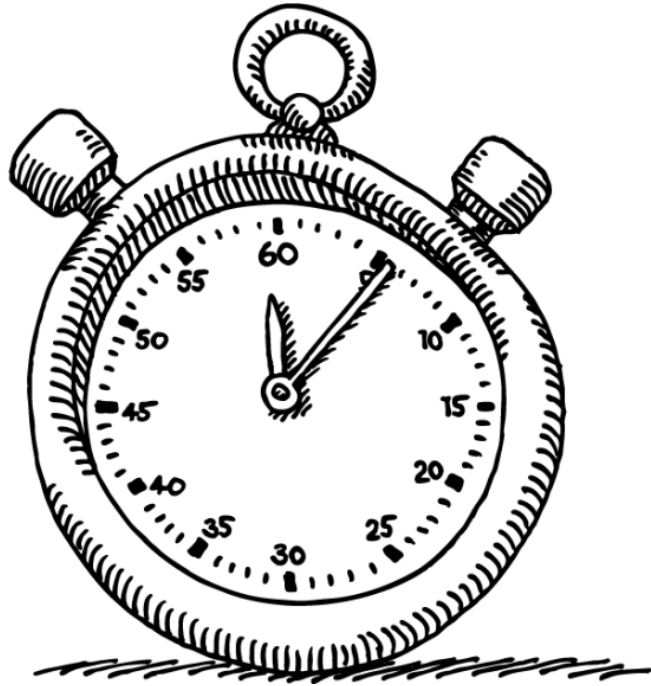
Transportation



Upon request or schedule, as for business clients we recommend concluding complex contracts. For small quantities (up to 10 kg.) We recommend sending by courier at the expense of the client. Especially for such shipments we created the program program GreenBox.

We provide transportation with our vehicles and employees, and the prices depend on the size of the vehicle (pickup, small bus, big bus, small truck, etc.). Customers also pay a price for waste transportation, with the exception of schools, kindergartens, municipalities and households.

Timing



For Sofia the terms are from 2 to 5 working days after receiving the application;

For the country - according to the schedules of our cars.

Recycling prices

Pricing?

**good
question**



We pay for the purchase of some types of electronic waste;

The customers pay for the recycling of others, such as toners, batteries, lamps, furniture, hazardous waste and more.

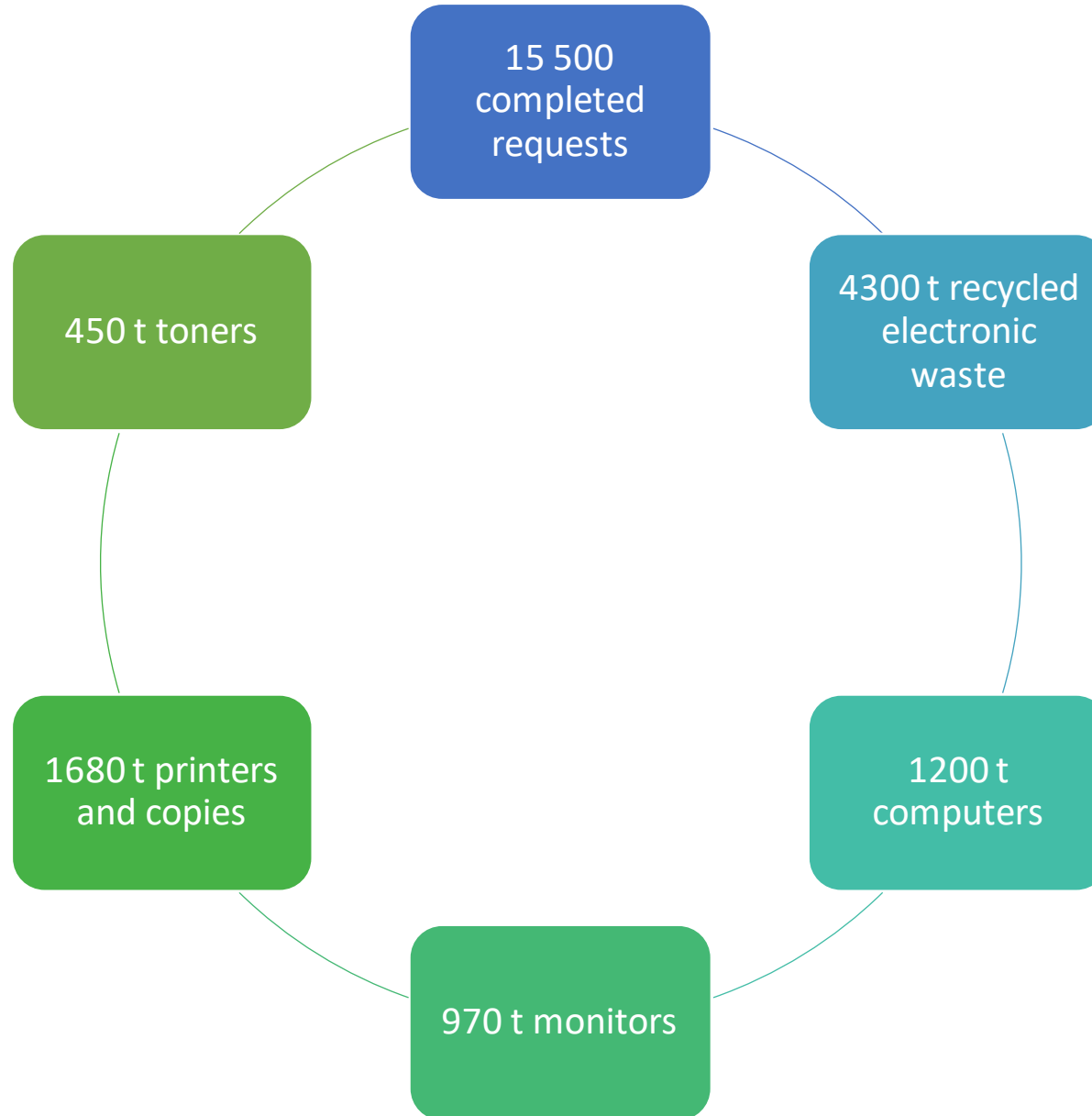
E-waste actions



We periodically organize actions in Sofia and the country for receiving electrical and electronic appliances.

In these cases our customers can deliver your appliances, we will accept and recycle them within the next few days.

What have we done so far?



The problem of electronic waste

This problem is actual at the moment and its importance is going to grow taking into account:

- technological changes producing a speed rise of new and improved products
- which stimulates steady consumption
- disposal of old equipment (unsustainable consumption)
- generating huge amounts of e-waste
- increasing a natural resources depletion problem

Growth in an electronic sector

Growth in an electronic sector and rapid changes in technology lead to the situation when more consumers are generating the increasing volumes of e-waste, much of which is still operational. There are a few reduced factors that limit the useful life of new products:

- designs that prevent upgrade and repair
- incompatibilities among different products and digital services
- lack of consumer tools and information

All stakeholders are concerned with this problem

In the whole life cycle of electronic equipment all stakeholders are concerned with this problem.

European countries are implementing e-waste management systems, where the responsibilities of producers, importers and recyclers are determined.

Consumers are playing two roles

Consumers are playing two roles in the life cycle of e-waste: that of a customer and e-waste holder.

Both consumer's roles express a middle phase of the product life cycle, namely the use phase, and a middle phase between producers and recyclers.

Both roles are very important when solving the e-waste problem, that is why the e-waste management system can not be efficient if consumers are not actively involved in it, if they have no environmental awareness and information about it

Willingness to consume in more sustainable manner

What are the main factors determining the willingness for sustainable consumption and participation in the e-waste management system?

The consumers have neither legal nor financial responsibilities. Possibilities how to make consumers participate voluntarily in mitigating the ewaste problem are analysed through a behavioural point of view.

The question is raised how consumers can be motivated in the world of business companies competing with steady technological changes which stipulate mass consumption.

Producers are expected to be responsible

Producers are expected to be responsible for the electronic products through their whole life cycle (extended producer responsibility).

They have to take into consideration e-waste problem at the production stage (eco-design, cleaner production) and to participate in the e-waste management system fulfilling the requirements of the EU directives and the national laws.

Recyclers consider e-waste to be business

Recyclers consider e-waste to be business, therefore they are concerned about collecting and recycling it.

Together with producers they are greatly involved in the e-waste problem.

But generation of e-waste and its efficient treatment are closely related to consumers of electronic products.

My focus is on the role of consumers in the e-waste problem, their direct and indirect contribution, their environmental awareness and possibilities to make changes in the sphere of consumption and recycling of electronics.

Sustainability is a two-sided coin

Sustainability is a two-sided coin:

- on one side there is sustainable production – the measures to make companies cleaner and greener
- on the other side there is sustainable consumption

When talking about sustainable production, companies are focused on being more efficient in manufacturing and selling.

Most technological changes are motivated by completely different motives - to increase sales.

E-waste disposal and awareness among consumers

Many consumers are still storing old equipment in their home or discarding it with their regular trash.

The environmental awareness among consumers in Eastern Europe is less developed than in Western Europe, thereby affecting the collection rate.

The experts claim that Social Psychology and the Theory of Planned Behaviour have been a dominant approach to explaining and modelling household recycling behaviour based on the main variables: attitude, motivation, knowledge and behavior.

New ways of encouraging consumers to recycle

There are four very different types of barriers exist:

- not enough containers, a lack of space for storage, unreliable collections, unable to get to bring to sites
- behaviour, e.g. household disorganisation, being too busy with other preoccupations, difficulties in sorting
- not knowing what materials to put in which container, and understanding the basics of how the scheme works
- not accepting there is an environmental or other benefit and not getting a personal motivational reward from recycling.

Empowerment of consumers' proenvironmental behaviour

Successful engagement of consumers in collection depend on finding the ways to a “close the loop” i.e. to ensure that discarded equipment gets reused or recycled to make new equipment.

E-waste should not be considered waste. It is a resource. Useful materials can be extracted and reused.

It means that consumers should be well informed that they can change their attitude to e-waste, it can lead to the behaviour changes (appropriate disposal), which can be induced by various motives (health, money & safety).

Seven levels of recycling competence

The initiatives to overcome barriers to recycling should be approached with consideration of 'seven levels of recycling competence'.

This simple model sets out a whole spectrum of competence, ranging from Level 1 (unconscious incompetent, where recycling is simply 'not on people's radar') through intermediate levels where people are struggling to do what is required, to the highest Level 7 (a state of ideal competence summed up as the perfect or 'complete' recycler).

Consumer confidence

Consumer confidence depends on a transparent, reliable system that ensures environmentally sound materials management and the safety and reliability of post-consumer equipment that is re-sold, donated, or recycled.

Consumers should ideally be in a position to understand their responsibility in a transparent Industrial Ecology system understanding the life cycle of products, materials and their impact on carbon reduction and improved social value. The three R's - of reconsider (a purchase), refurbish, recycle – should be reinforced.

Obligations of producers and distributors

The Environmental law must obligates distributors to inform the end users how they can hand in WEEE which distributors receive on old-for-new, 1:1 basis.

The Law also requires producers to provide users with information on hazardous materials content and the associated risks to the environment and human health. It means education and awareness raising campaigns among the public.

Lack of initiatives from producers

But there is lack of initiatives from producers to encourage consumers to dispose of appropriate electronic equipment in its end of life, while e-waste prevention is far-away from the activity of producers.

Producers are concerned about the collection rates, not about the prevention and education of consumers.

As consumers become more aware

As consumers become more aware of the carbon content in waste, and understand the endless life cycle of materials (especially metals), they will be empowered to take responsibility for their behaviour and consumer choices.

Industry has the opportunity and the choice to change, just as the community has the opportunity and choice to demand the change.