

WASTE MANAGEMENT CHALLENGES FOR THE BULGARIAN COMPANIES

2022



Keep Bulgaria Clean For The Children!

RESOURCE EFFICIENCY AND TRANSITION TO CIRCULAR ECONOMY

- Introducing new principles in the production of goods and services to optimize the use of raw materials



- Ecodesign for Sustainable products and packaging lifecycle optimization according to the Green Deal

Promoting:

- reuse
- recycling
- and other forms of recovering of packaging waste, instead of disposal

TURNING WASTE INTO RESOURCES

➤ Recycling targets for packaging waste

	current target	by 2025	by 2030
ALL PACKAGING	62%	65%	70%
Plastics	35%	50%	55%
Single-use plastics	30%	77%	90%
Glass	64%	70%	75%
Paper and cardboard	68%	75%	85%
Ferrous metals	55%	70%	80%
Aluminium	20%	50%	60%
Wood	19%	25%	30%

CHALLENGES IN WASTE MANAGEMENT IN BULGARIA

- Low percentage of clean packaging for recycling
- Lack of appropriate infrastructure - designated spots for containers
- Lack of strict control by local authorities – mixing recyclable and non-recyclable materials
- Waste is usually anonymous
- Illegal dumping
- Insufficient number of municipal waste treatment sites

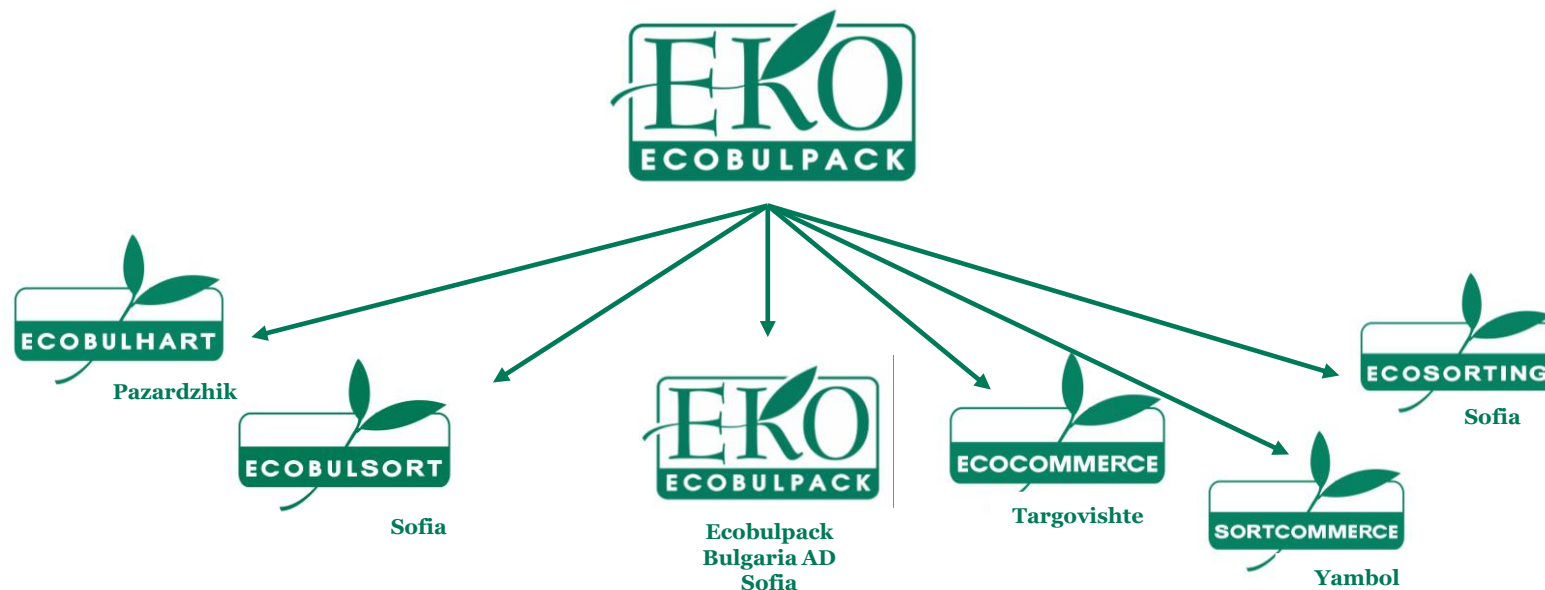


- Lack of determination by the local authorities to select a methodology for calculating household waste

✓ *wide implementation of the principle “pay as you throw”*

ECOBULPACK GROUP

SCOPE OF ACTIVITIES



- MSW & packaging waste sorting
- glass sorting & treatment
- paper and paper composite packaging treatment
- treatment and recycling of preliminary sorted films (LDPE, HDPE)
- servicing MSW containers (household waste pick-up)

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ECOBULPACK & ITS SUBSIDIARIES INVEST IN SORTING INSTALLATIONS

Sorting installations:

- 2008 - Pazardzhik - 40 000 t/y
- 2010 - Yambol - 100 000 t/y
- 2010 - Targovishte - 60 000 t/y
- 2015 - Pazardzhik - Stock preparation line SPL /waste paper processing installation/
- 2018 – Nesebar – 120 000 t/y



a Waste pretreatment plant in Filipovtsi district (Sofia)

- sorting installation for paper, plastics and metal - 180 000 t/y
- glass sorting installation - 60 000 t/y

MODERNIZATION OF PAPER, PLASTICS & METAL SORTING INSTALLATION

The modernization of the pre-treatment installation consists of:

- expanding technological capacity by installing 4 optical separators, ballistic separator, shredder, etc.
- better technological flexibility – waste, according to its composition, can be fed from different inputs;
- higher rate of separation - the installation can sort mixed plastics and paper. Now waste materials can be separated by type and colour - e.g. coloured and transparent film, PET bottles by colour, HDPE, corrugated cardboard, mixed paper, etc;
- capacity – various machines and equipment - up to 30 t/h. Sorting of recyclables-rich materials - up to 10 t/h.



GLASS SORTING INSTALLATION FILIPOVTSI

- capacity - 60 000 tonnes/year
- Austrian technology of BINDER+Co
- provides precise separation of glass from porcelain, ceramics, organics, metals, plastics, etc.
- facility is fully automated, operating mode requires only 6 workers per shift



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GLASS SORTING INSTALLATION FILIPOVTSI

- final product: extremely high-quality glass cullets - 50 g impurities per tonne
- automatic simultaneous separation by 3 colours of glass



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WASTE PAPER AND CARDBOARD AS SECONDARY RAW MATERIAL

- in the process of pre-treatment of solid municipal waste, which is mandatory according to the Bulgarian waste management legislation, a stream of recyclable waste paper and cardboard with high contamination parameters is generated
- in Bulgaria paper mills cannot process highly contaminated raw materials as well as coated paper and Tetra Pak packaging due to lack of technological possibilities
- ✓ in 2012 a collaboration with the Bulgarian Pulp and Paper Institute was started to explore the utilization of waste paper and paper packaging sorted from SMW
- ✓ as a result in June 2013 an innovative model was developed and later implemented
- ✓ **turns highly contaminated waste paper and cardboard into raw material for paper producers**



STOCK PREPARATION LINE /SPL/ PAZARDZHIK

- built in 2015
- built up area: 1 800 sq.m.
- nominal capacity: 5 tonnes/hour
- installation produces waste paper fibers for paper industry



BENEFITS TO THE ENVIRONMENT AND ECONOMY

- reducing the amount of primary cellulose fibers - replaced by purified fiber mass
- higher content of long-fiber fraction in the produced paper
- reducing the consumption of water and energy in the paper production process
- reducing the amount of landfilled waste
- reducing transport and landfilling costs





THANK YOU FOR YOUR ATTENTION

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