Waste prevention country profile

Romania

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European Environment Agency

Country profile: Romania

General information

Name of the country/ region	Romania
Geographical coverage of the waste prevention programme (national/ regional)	National
Type of programme (stand alone or integrated into waste management plan or into the circular economy strategy)	Part of the national waste management plan The waste prevention section is covered in Chapter V 'National programme for the prevention of waste generation' (pp. 301-345)
Title of programme and link to programme	Planul Național de Gestionare a Deșeurilor (national waste management plan) http://www.mmediu.ro/categorie/planul-national-de-gestionare-a-deseurilor-pngd/239
Duration of programme	2014 - 2020
Language	Romanian
Contact person in the country/region	Ana-Maria Nistorescu, Waste Department Simona Mihaela Ghita, Waste Department
Development process of the programme/ revision	N/A
Foreseen budget for implementation of the programme	N/A

WASTE GENERATION

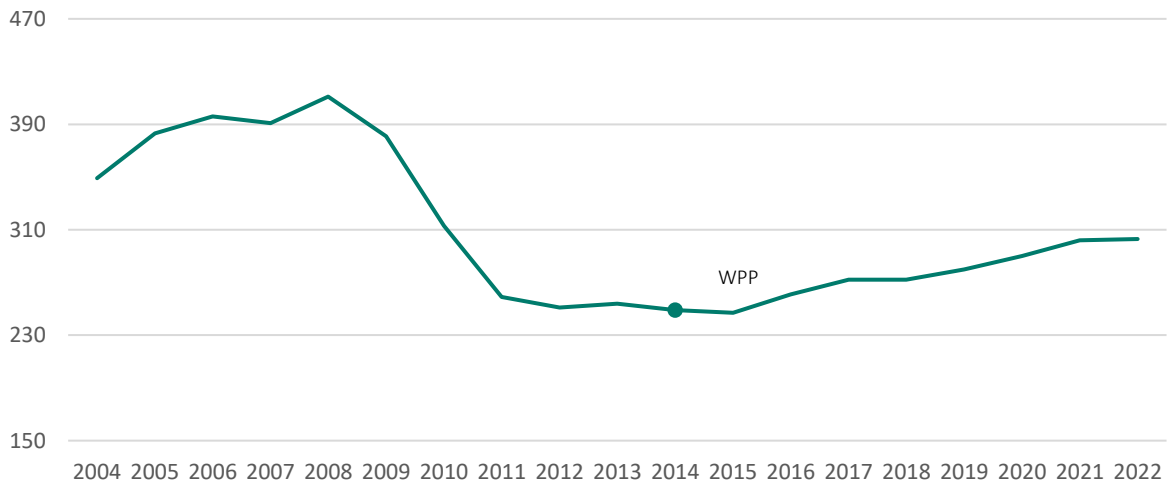
The following figures illustrate the progress towards waste prevention and decoupling of waste generation from economic growth in Romania.

Municipal solid waste (MSW)

Romania's municipal waste generation has slightly increased in recent years (

Figure 1). In 2022, Romania generated 303 kg/cap of municipal waste, which is significantly below the estimated EU27 average of 513 kg/cap.

Figure 1 Municipal waste generation in Romania (kg per capita), 2004-2022

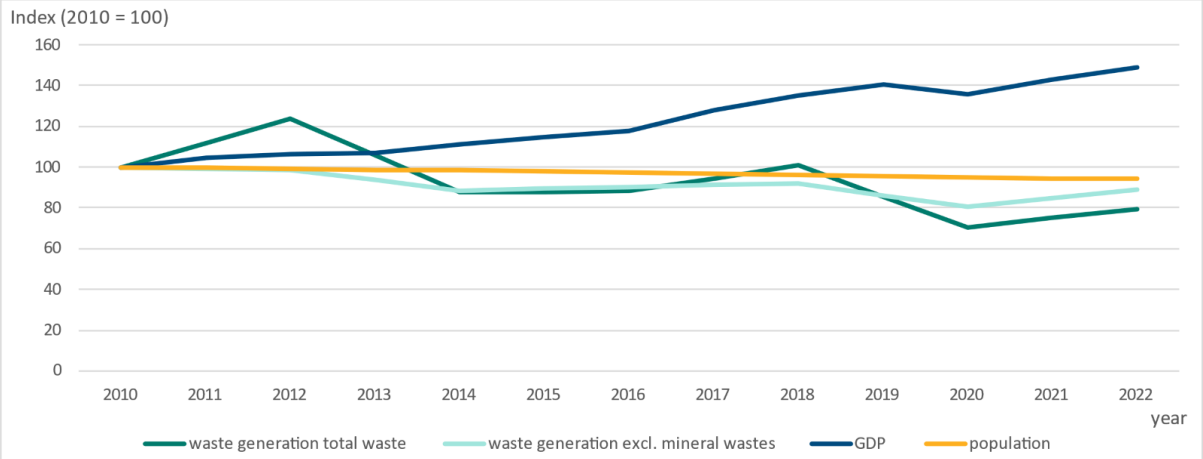


Source: Eurostat [ENV_WASMUN].
Note: As of reference year 2020, new reporting rules apply for calculating recycled municipal waste pursuant to the targets laid down in Article 11.2(c-e) of Directive 2008/98/EC. However, it is unclear based on the information available whether these new reporting rules have been implemented in Romania yet.

Total waste

The total amount of waste generated has decreased in Romania over the past 12 years (Figure 2). This trend is primarily driven by the by far largest waste category - other mineral wastes - which is mainly generated in the mining and quarrying sector. When excluding mineral waste, the trend is similar, and the largest waste fractions include combustion wastes, recyclable wastes and mixed ordinary wastes. The trend seems to be mainly influenced by a decrease in combustion waste which nearly halved from 2018 to 2020 followed by an increase. Romania's GDP showed a steady growth through the period with a drop in 2020, most likely due to the Covid-19 pandemic. Meanwhile the population slightly decreased during the same period. There is an indication of decoupling between economic growth and waste generation.

Figure 2 Generation of waste (total and excluding major mineral wastes), population and economic development, 2010-2022



Source: Eurostat [ENV_WASGEN, NAMA_10_PC, DEMO_GIND]
Note: Waste generation data for odd years are interpolated.

WASTE PREVENTION PROGRAMME

Objectives and priorities

1.	Waste prevention objectives of the Programme - quantitative objectives (waste reduction) - qualitative objectives (reduction of hazardous substances/ environmental impacts)	The general aim of the implementation of waste prevention measures is to break the link between economic growth and the environmental impacts associated with waste generation (p. 302). Moreover, the programme aims at establishing a global vision and strategic direction in developing effective measures on waste prevention (p. 310). Three strategic objectives have been proposed (p. 315): • Reduce household waste per capita by 10 %, in comparison with 2017, by 2025 (i.e. reduce municipal waste from the 228 kg/capita recorded in 2017 to 204 kg/capita in 2025). • Decouple the increase in the quantity of packaging waste from economic growth (i.e. the increase in the quantity of packaging waste in 2025, in comparison with 2017, should be at least 10 % lower than the GDP growth during this period). • Promote waste prevention in the wood processing, chemical, metallurgical and steel industries
2.	Sectors covered	• agriculture; • construction and infrastructure; • manufacturing; • sale, retail, transport; • households; • private service activities, hospitality; • public service
3.	Priority waste types	• food/organic; • construction and demolition waste; • hazardous waste; • household/municipal waste; • paper/cardboard; • packaging; • waste electrical and electronic equipment (WEEE)/batteries; • manufacturing waste
4.	Target groups	The waste management plan identifies the involvement of various target groups in the realisation of specific measures. Examples of target groups are as follows: consumers, those working in industry (especially the wood, chemical, metallurgical and steel industries), governmental institutions (Ministry of Environment, Ministry of Economics, Ministry of Research and Innovation), those in regional and administrative units, those working in waste management utilities, and educational institutions.

Targets, indicators and monitoring

1.	Indicators used to monitor progress	Specific indicators on waste prevention have been mentioned in Chapter VI.5 (Table VI-19, pp. 377-379). 1. The following indicators for objective 1 (see Section 7) have been proposed: • household and similar waste reduction (in comparison with 2017); • a methodological guide on individual composting at home; • the number of people from local public authorities trained on individual composting; • the share of food waste in the total amount of domestic waste and total weight of food waste; • a study implemented on economic incentives to limit food waste; • an impact study to apply economic incentives to limit food waste; • the number of food waste prevention measures/control in the catering sector; • the number of information and awareness campaigns on food waste; • policy on eco-responsible consumption of office paper in public administration promoted; • policy on the development of a printed advertisement refusal system (STOP PUBLICITATE) promoted; • the number of campaigns to raise awareness of environmentally responsible paper consumption; • inclusion of waste prevention topics in pre-university education. 2. The following indicators for objective 2 (see Section 7) have been suggested: • the rate of increase in the amount of packaging waste, in comparison with 2017; • the rate of increase in the amount of primary packaging for soft drinks, mineral water and beer, in comparison with 2017; • the number of information and awareness campaigns for producers and • consumers (e.g. encourage the use of reusable packaging and reduce consumption of single-use plastic bags). 3. The following indicators for objective 3 (see Section 7) have been proposed: • the number of voluntary agreements in the wood, chemical, metallurgical and steel industries; • the number of research studies on the identification of new clean • technologies in the wood, chemical, metallurgical and steel industries
2.	Quantitative targets	• Reduce household waste per capita by 10 %, in comparison with 2017, by 2025 (i.e. reduce

		municipal waste from the 228 kg/capita recorded in 2017 to 204 kg/capita in 2025). • Decouple the increase in the quantity of packaging waste from economic growth (i.e. the increase in the quantity of packaging waste in 2025, in comparison with 2017, should be at least 10 % lower than the GDP growth during this period).
3.	Monitoring mechanism of the programme	A set of monitoring measures on waste management exists. For example, a monitoring report for the period 2018-2020 will be established by the Interministerial Commission and will include information on the implementation of priority governance measures for municipal waste management (p. 348)
4.	Evaluation of the programme	The national waste management programme is the first planning document with regard to waste prevention at the national level. Therefore, there is no set of measures on how to evaluate and monitor the implementation of the results (p. 304). Many measures on waste prevention are recent, so an evaluation does not yet exist (p. 304).

Prevention measures

Implemented prevention measures according to Article 9	The following describes the waste streams for which prevention measures are in place, most of which are foreseen by legislation, respectively: • Measures to prevent the generation of municipal waste; • Measures to prevent the generation of food waste; • Measures to prevent the generation of packaging waste; • Measures to prevent the generation of waste electrical and electronic equipment; • Measures to prevent the generation of waste batteries and accumulators. • Green public procurement

The waste prevention programme includes the following measures that are proposed to avoid waste generation (Chapter 1.5):

Table 1: Specific waste prevention measures structured according to Art 9 WFD

Promote and support sustainable consumption models	**Measures related to the 10% reduction of municipal waste generated per capita by 2025** Measure 1: Support and develop existing actions on individual composting of biowaste Measure 2: Halve the amount of food wasted by 2025 compared to 2018 Measure 3: Prevention of waste printed paper generation Measure 4: Introduction of waste prevention topics in the school curriculum for pre-university education **Measures related to the target on decoupling packaging waste growth from economic growth, i.e. increasing packaging waste in 2025 compared to 2017 by at least 10% less than GDP growth for this period** Measure 5: Reduction of the quantity/volume of packaged products needed for the same purpose or use

Encourage the design, manufacturing and use of products that are resource-efficient, durable (including in terms of life span and absence of planned obsolence), reparable, re-usable and upgradable.	**Measures related to the target on decoupling packaging waste growth from economic growth, i.e. increasing packaging waste in 2025 compared to 2017 by at least 10% less than GDP growth for this period** Measure 1: Optimisation of packaging by design/redesign and the way products are packaged • Action 1.1: Use less resources by using thinner packaging materials • Action 1.2: Use of environmentally friendly packaging materials • Action 1.3: Eliminate as far as possible over-packaging of cosmetics, toothpaste • Action 1.4: Appropriate forms of packaging to have as many products as possible in the delivery unit (pallets, containers) **Measures on the prevention of waste electrical and electronic equipment** Measure 1: Eco-design of EEE to facilitate repair and re-use and to achieve sustainable products
Target products containing critical raw materials to prevent that those materials become waste.	
Encourage the re-use of products and the setting up of systems promoting repair and re-use activities, including in particular for electrical and electronic equipment, textiles and furniture, as well as packaging and construction materials and products.	**Measures related to the target on decoupling packaging waste growth from economic growth, i.e. increasing packaging waste in 2025 compared to 2017 by at least 10% less than GDP growth for this period** Measure 3: Increase the amount of primary reusable packaging for soft drinks, mineral waters and beer compared to 2017: in 2020 by at least 50% and in 2025 by at least 100%. • Action 3.1: Introduce in Law 249/2015 a single deposit value per type of primary packaging for soft drinks, mineral waters and beer • Action 3.2: Allow consumers to choose the type of primary packaging (reusable or disposable) for soft drinks, mineral waters and beer • Action 3.3: Inform consumers about the choice of primary packaging (reusable or disposable) for soft drinks, mineral waters and beer

	Measures on the prevention of waste electrical and electronic equipment Measure 2: Establishment of a register containing a list of existing repair facilities including information on the type of WEEE accepted Measure 3: Encouraging the repair of defective EEE or their components, i.e. financial support and expansion of existing repair centres including information to consumers about them
Encourage, as appropriate and without prejudice to intellectual property rights , the availability of spare parts, instruction manuals, technical information, or other instruments, equipment or software enabling the repair and re-use of products without compromising their quality and safety.	**Measures on the prevention of waste electrical and electronic equipment** Measure 3: Encouraging the repair of defective EEE or their components, i.e. financial support and expansion of existing repair centres including information to consumers about them
Reduce waste generation in processes related to industrial production, extraction of minerals, manufacturing, construction and demolition, taking into account best available techniques.	**Measures for waste from wood processing and the chemical, metal and steel industries** Measure 1: Realisation of voluntary agreements with the timber industry and the chemical, metal and steel industries Measure 2: Promotion of research and development to identify new clean technologies in the wood, chemical, metal and steel industries **Industrial waste prevention measures** Measure 1: Establish and implement a Programme for the prevention and reduction of waste generated from own activity or, where appropriate, from any product manufactured. Measure 2: Enter into voluntary agreements with representatives of industrial sectors to raise awareness and encourage waste prevention (both in terms of quantity and quality)

Reduce the generation of food waste in primary production, in processing and manufacturing, in retail and other distribution of food, in restaurants and food services as well as in households as a contribution to the United Nations Sustainable Development Goal to reduce by 50 % per capita global food waste at the retail and consumer levels and to reduce food losses along production and supply chains by 2030.	**Measures related to the 10% reduction of municipal waste generated per capita by 2025** Measure 2: Halve the amount of food wasted by 2025 compared to 2018 • Action 2.1: Carry out an analysis of the share of food waste in total household and similar waste by medium and the share of food waste in total food waste • Action 2.2: Carry out expert studies to prohibit the fixing of the date of minimum durability (MDD) for certain categories of goods as well as informing the public about the significance of the shelf life of products • Action 2.3: Obligation for public authorities to set up a control procedure against food waste in the catering sector they manage and application of the principle of "food waste prevention" in public procurement • Action 2.4: Conduct information and awareness-raising campaigns (p.331).
Encourage food donation and other redistribution for human consumption, prioritising human use over animal feed and the reprocessing into non-food products.	
Promote the reduction of the content of hazardous substances in materials and products, without prejudice to harmonised legal requirements concerning those materials and products laid down at Union level, and ensure that any supplier of an article as defined in point 33 of Article 3 of Regulation (EC) No. 1907/2006 of the European Parliament and of the Council provides the information pursuant to article 33(1) of that regulation to the European Chemicals Agency as from 5 January 2021.	**Measures to prevent waste batteries and accumulators** Measure 1: Limiting and reducing the use of hazardous substances in the production of batteries and accumulators Measure 2: Promote research programmes to replace hazardous materials with materials with a reduced impact on human health and the environment **Measures to prevent end-of-life vehicles** Measure 1: Limiting and reducing the use of hazardous substances in vehicle manufacturing from the design phase onwards **Medical waste prevention measures** Measure 2: Reduce the amount of hazardous medical waste generated by defining and applying separate collection criteria according to the

	hazardous waste legislation provisions
Reduce the generation of waste, in particular waste that is not suitable for preparing for re-use or recycling.	
Identify products that are the main sources of littering, notably in natural and marine environments, and take appropriate measures to prevent and reduce litter from such products, where Member States decide to implement this obligation through market restrictions, they shall ensure that such restrictions are proportionate and non-discriminatory.	
Aim to halt the generation of marine litter as a contribution towards the United Nations Sustainable Development Goal to prevent and significantly reduce marine pollution of all kinds.	
Develop and support information campaigns to raise awareness about waste prevention and littering.	**Measures related to the 10% reduction of municipal waste generated per capita by 2025** Measure 2: Halve the amount of food wasted by 2025 compared to 2018 • Action 2.4 Carry out information and awareness-raising campaigns Measure 3: Prevention of printed paper waste generation • Action 3.3: Conduct awareness-raising campaigns on environmentally responsible consumption of printed paper **Measures related to the target on decoupling packaging waste growth from economic growth, i.e. increasing packaging waste in 2025 compared to 2017 by at least 10% less than GDP growth for this period** Measure 5: Making RTOs accountable for prevention

	• Action 5.2: Organise information and awareness-raising campaigns on prevention for both producers and consumers. Produce guides on eco-design and clean production, to be published in a separate section on its own website. Also informing and raising awareness among consumers about buying products in reusable packaging and reducing the use of thin plastic carrier bags. Information and awareness campaigns can be carried out together with retailers

FOOD WASTE PREVENTION

Food waste generation

In 2020, a study on food waste was conducted by four universities in Romania, Northern Macedonia and the Republic of Moldova. The result of the study has been that Romania generates 5 million tons of food waste every year. Compared to EU Member States, Romania ranks 9th in the waste ranking.[1] Recent statistics show that Romanians waste to be around 6,000 tonnes of food per day, equivalent to one portion of food for every Romanian, and that more than 2.2 billion kilograms of food end up in Romanian landfills every year causing pressure on the environment. The largest share of food waste is recorded at the household level (49%), followed by industrial processes (37%), while the retail sector (7%) and the agricultural sector (5%) contribute the least to food waste in Romania. Of particular concern is the fact that Romanians spend on average more than 40 % of their household income on food.[2]

Measures to prevent food waste

Legislative measures:

In 2018, the Romanian Law 217/2016 on Food Waste Reduction provides several measures to reduce food waste throughout the food supply chain. Following the 2019 evaluation, the law was amended to facilitate the donation of surplus food by simplifying donation contracts and clarifying the type of food business operators that may redistribute food. Donated food is exempt from sales tax if it is redistributed within 10 days before the expiration date. [3]

This has produced the necessary legislative environment for retailers such as Lidl which were willing to collaborate with non-governmental actors in order to reduce the amount of food wasted due to the fact that it is not bought by consumers. [4]

Measures on awareness:

[1] Study: Five million tons of food wasted annually in Romania | Romania Insider (romania-insider.com)
[2] Cantaragiu, Ramona. (2019). Corporate social entrepreneurship initiatives against food waste – The case of Lidl in Romania. Proceedings of the International Conference on Business Excellence. 13. 505-514. 10.2478/picbe-2019-0044.
[3] https://ec.europa.eu/food/safety/food_waste/eu-food-loss-waste-prevention-hub/eu-member-state-page/show/RO
[4] Cantaragiu, Ramona. (2019). Corporate social entrepreneurship initiatives against food waste – The case of Lidl in Romania. Proceedings of the International Conference on Business Excellence. 13. 505-514. 10.2478/picbe-2019-0044.

MADR and the Ministry of Education launched an information campaign titled ‘You can protect the planet as well! Together we start reducing food waste’ to educate students about the economic, social and environmental impacts of food waste.

Furthermore, the campaign, "Do Good: Save Food! - Educating Future Generations for a World Without Food Waste," of the Food and Agriculture Organization of the United Nations, was translated into Romanian.[5]

The project "Romania against food waste" carried out by the MaiMultVerde Association provides an information and awareness portal on food waste. The website shows a catalogue of Romanian organizations involved in waste prevention and capitalization of food surpluses. The material in the catalogue highlights good practices and initiatives to combat food waste.[6]

The Non-Governmental Organisation JCI Cluj works to raise awareness and reduce food waste in Romania through its website “Food Waste Combat. Eat Save Repeat”. It offers a downloadable guide on food consumption and storage and a kit with valuable tips in the fight against food waste. They support interactive workshops and launch food waste projects on food waste in schools and companies in Cluj.[7]

REUSE OF PRODUCTS

Data

Romania has not reported any data for reuse of textiles, furniture, electrical and electronic equipment and construction and building materials according to Commission Implementing Decision (EU) 2021/19 for the year 2021 by the reporting deadline (EEA, 2024)

Measures to support reuse

A guide for Romania was created by Erasmus+, the Faculty of Agriculture in Zagreb, Manchester Metropolitan University, HAW Hamburg, GMCA, TALTECH and USAMV Bucuresti. The guide focuses on circular economy and how products can be recycled and reused. It also shows the following examples that primarily deal with reuse of products.

Upside down - A young Romanian company collects and recycles textiles that no longer is being used. They recycle textile waste (rags), truck tarpaulins or rubber waste and make colourful bags, wallets, book covers, tablet cases, phones, or other accessories. The company aims to transform seemingly disregarded, useless items into new, fashionable products with added value by following three processes (cleaning, cutting, sewing). They produce special accessories for various customers, companies, show organizers, or individuals.[8]

[5] https://ec.europa.eu/food/safety/food_waste/eu-food-loss-waste-prevention-hub/eu-member-state-page/show/RO
[6] ttps://foodwaste.ro
[7] https://foodwastecombat.com
[8] https://www.mmu.ac.uk/media/mmuacuk/content/documents/w2rin/5756-R4GM-IO4-Romanian-v3.pdf

The non-governmental organization “We give a helping BYTE" donates IT / electronic products to children and schools with financial problems. Around 460 computers from large donor companies were donated under this program and delivered to rural schools in Romania.[9]

Best practice examples

Food Waste Prevention:

Kaufland Romania launches the first integrated anti-food waste campaign with Social Canteen for low-income families and the homeless. The company provides the necessary products for the preparation of community meals. Some of the food comes from stocks in accelerated sales, and the daily menu is set following the optimal use of all resources. To date, 48 tonnes of food have been salvaged, mainly meat, fruit and vegetables. Over 100,000 servings were offered to those in need. [10]

Romanian bonapp.eco launches mobile app to combat food waste. In an effort to turn the sustainability challenge around food waste into an economically-feasible business opportunity, Romanian startup bonapp.eco launches a mobile app for purchasing food close to expiration date from retailers. Already 35 businesses in Bucharest joined the initiative. Expansion plans include rolling-out across Eastern Europe next year, as well as signing up 5000 locations, and selling 30 million meals by 2023.[11]

The Food Bank is a combat project / campaign aimed at food disposal prevention developed in three cities in Romania. Bucharest, Cluj and Roman in which over 15 companies are involved. They distributed food from traders / economic operators to disadvantaged people (the action involved 72 NGOs, 2 food trucks and a 300 sqm refrigerated hall). Over 215 tons of food were distributed before 2018. The project is in a continuous development and involves more and more donor companies but also many volunteers. [12]

A commendable initiative is that of Carrefour Romania which in July (the month without plastic), in exchange for the plastics brought to the stores, they gave fruit. Thus, they managed to collect over 25,000 thousand plastic containers in exchange for 6 tons of fruit.[13]

Reuse of products

The REDU project was developed by the association "Mai Bine", a non-governmental organisation with more than seven years of experience in environmental protection activities as a social enterprise that aims to transform waste into resources in a creative and educational way. It was launched in Iasi as a pioneering project at national level in the field of slow fashion, social economy and green entrepreneurship. In its first two years of operation, REDU has become a strong initiative for recycling/reusing textiles not only from consumers and for raising consumer awareness.

As a result of project activities, 4 categories of green products have been created in the workshop and are advertised under the online shop at www.redu.org.ro:

1. Repurposed/Upcycled – products made from old textiles and old clothes that cannot be reused. For example, reusable bags made from men's shirts, wall décor made from blue jeans, reusable

[9] http://www.educlick.ro/povesti-de-succes

[10] https://www.revistabiz.ro/kaufland-romania-lanseaza-prima-campanie-integrata-anti-risipa-alimentara/
[11] https://therecursive.com/romanian-bonapp-eco-launches-mobile-app-to-combat-food-waste/
[12] https://www.mmu.ac.uk/media/mmuacuk/content/documents/w2rin/5756-R4GM-IO4-Romanian-v3.pdf
[13] http://bancapentrualimente.ro/despre/

packaging for sandwiches, kitchen items, etc. A total of 1018 new useful upcycling products were created.
2. Re-designed – in local factories, collected material scraps are used to create new garments through redesign. In the first year, three re-designed collections were created with a total of 120 re-designed garments from pre-consumer waste.
3. Re-used – most of the part of the products collected is being further donated to disadvantaged people and the best products are being cleaned, repaired if needed and reconditioned and sold in the concept store as second-hand products.
4. Recycled – old T-shirts were collected as part of the REDU project and new messages were printed on them. [14]

Links to circular economy

Waste prevention is an integral part of the comprehensive transformation towards a circular economy. It reduces the input of natural resources into the economy as well as the necessary efforts to collect and recycle waste.

Approaches for improving circularity are often highly interlinked with successful waste prevention. The following table shows which circular strategies are explicitly integrated into the Romania´s waste prevention programme.

Topic	Addressed in the programme	Comments
Eco-design	Yes	Apply eco-design requirements that facilitate the re-use and treatment of WEEE (p.307)
Repair, refurbishment and remanufacture	Yes	Encouraging the re-use and/or repair of defective products or their components, in particular through the use of educational, economic, logistical or other measures (p.339) Refurbishment and recommissioning of hazardous waste treatment facilities in existing enterprises (p.151)
Recycling	Yes	Increasing readiness for reuse and recycling through the application of the waste management hierarchy (p.172)
Economic incentives and finance		Economic incentives for manufacturers to put greener products on the market and support for recycling and recovery schemes (e.g. for packaging, batteries, electrical and electronic equipment, vehicles) (p.9)
Circular business models	No	
Eco-innovation	Yes	The Ministry of Economy, at the request of the responsible economic operators, proposes to the State Authority for Research and Development scientific research, technological development and innovation programmes on the manufacture, composition, reusability and recoverability of packaging, as well as on the optimisation of packaging and packaging form in order to reduce the specific material

[14] https://www.urbanwins.eu/redu-reduce/

		consumption per type of packaging and product. (p.306)
Governance, skills and knowledge	Yes	Priority governance measures for municipal waste management, to be implemented in the immediate period ahead, which will mainly contribute to ensuring the functioning of the integrated waste management system projects at their designed capacity (p.346)