

Overview of national waste prevention programmes in Europe



Romania 

2021

Photo: © Mario Cvitkovic from Pixabay

General information

Name of the country/region	Romania
Coverage of the waste prevention programme (national/regional)	National
Type of programme (stand alone or integrated into waste management plan)	Part of the national waste management plan. The waste prevention section is covered in Chapter V of the '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
Development process of the programme/revision	
Budget envisaged for implementation of the project	

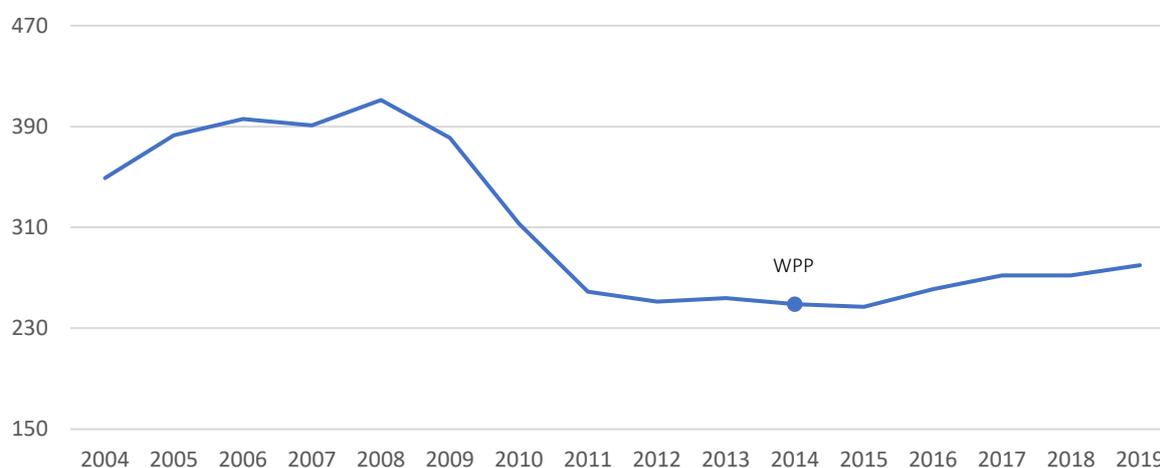
Waste generation

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

Municipal solid waste

- The generation of municipal solid waste (MSW) per capita increased from 383 kg in 2004 to 411 kg in 2008 and declined in the years that followed (see Figure 1). From 2009, a strong downwards trend in MSW generation can be observed until 2015, which was followed by a slight increase to 280 kg per capita by 2019.
- The lowest level of MSW generation was reached in 2015 (247 kg per capita), a year after Romania's first waste prevention programme (WPP) came into force. The slight increase in the following years might be influenced by many factors (e.g. population, household expenditure).
- Overall, the Romanian MSW generation of 280 kg per capita remained below the European average of 502 kg per capita/year.

Figure 1: Municipal waste generation in Romania (kg per capita), 2004-2019

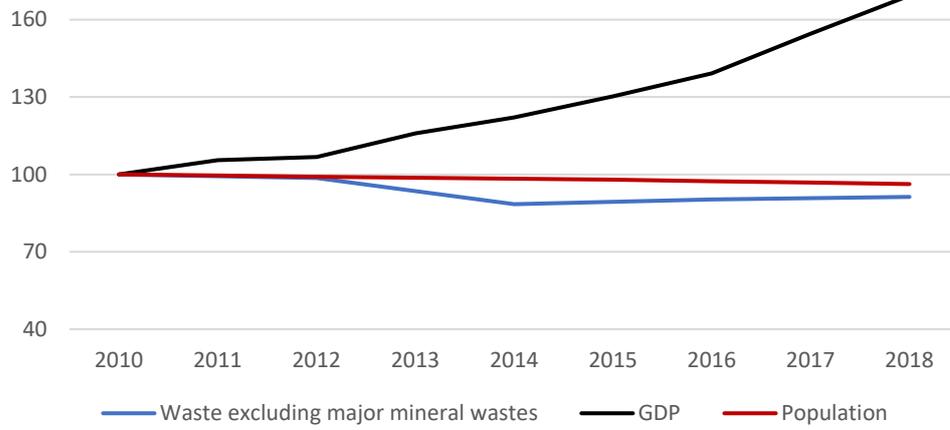


Source: Eurostat Circular Economy Monitoring Framework.

Total waste

- Total waste generation in Romania decreased from 2010 to 2014 and then increased slightly to 2018 (see Figure 2).
- A different trend can be observed for Romania's economic growth in terms of GDP, which increased strongly between 2010 and 2018.
- Although a longer time series is needed to confirm any conclusions, Romania does seem to be on track to decouple total waste generation from economic growth.
- A link between population growth and waste generation, however, cannot be observed.

Figure 2: Growth rate of waste (excluding major mineral wastes), GDP and population in Romania, 2010-2018 (2010 = 100)



Source: Eurostat.

Waste prevention programme

Objectives and priorities

1. Waste prevention objectives of the programme: quantitative objectives (waste reduction) and qualitative objectives (reduction of hazardous substances/environmental impacts)	<p>By implementing the waste prevention measures, the aim is to break the link between economic growth and the environmental impacts associated with waste generation (p. 302). Moreover, the programme aims to establish a global vision and strategic direction in developing effective measures on waste prevention (p. 310)</p> <p>Three strategic objectives have been proposed (p. 315):</p> <ul style="list-style-type: none">• By 2025, reduce household waste per capita by 10 % compared with 2017 (i.e. reduce MSW from the 228 kg per capita recorded in 2017 to 204 kg per capita by 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, comparison with 2017, should be at least 10 % lower than the growth in GDP during this period)• Promote waste prevention in the wood processing, chemical, metallurgical and steel industries
2. Sectors covered	<ul style="list-style-type: none">• Agriculture• Construction and infrastructure• Manufacturing• Sale, retail, transport• Households• Private service activities, hospitality• Public service
3. Priority waste types	<ul style="list-style-type: none">• 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	<p>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</p>

Targets, indicators, and monitoring

1. Indicators proposed	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:	<ul style="list-style-type: none">• household and similar waste reduction (compared with 2017)• a methodological guide on composting at home• the number of people from local public authorities trained in home 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:	<ul style="list-style-type: none">• the rate of increase in the amount of packaging waste, compared with 2017• the rate of increase in the amount of primary packaging for soft drinks, mineral water and beer, compared with 2017• the number of information and awareness campaigns for producers and consumers (e.g. encouraging the use of reusable packaging and reducing consumption of single-use plastic bags)
3. The following indicators for objective 3 (see Section 7) have been proposed:	<ul style="list-style-type: none">• the number of voluntary agreements in the wood, chemical, metallurgical and steel industries• the number of research studies on identifying new clean technologies in the wood, chemical, metallurgical and steel industries
2. Quantitative targets	<ul style="list-style-type: none">• By 2023, reduce household waste per capita by 10 %, compared with 2017 (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, compared with 2017, should be at least 10 % lower than the growth in GDP during this period)
3. Monitoring of 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 Inter-ministerial 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 on 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

Prevention measures implemented in accordance with Article 9 of the Waste Framework Directive	<p>Waste prevention measures are in place for the following waste generation streams, most of which are covered by legislation:</p> <ul style="list-style-type: none"> • municipal waste • food waste • packaging waste • WEEE • waste batteries and accumulators • green public procurement
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Table 1: Specific waste prevention measures structured in accordance with Article 9 of the Waste Framework Directive

<p>Promote and support sustainable consumption models</p>	<p>Measures related to the 10 % reduction in municipal waste generated per capita by 2025</p> <p>Measure 1: Support and develop existing actions on individual composting of biowaste</p> <p>Measure 2: Halve the amount of food wasted by 2025 compared with 2018</p> <p>Measure 3: Prevent generation of waste printed paper</p> <p>Measure 4: Introduce waste prevention topics in the education curriculum for pre-university students</p> <p>Measures related to the target on decoupling packaging waste growth from economic growth, i.e. the increase in packaging waste in 2025 compared with 2017 should be at least 10 % less than the growth in GDP for this period</p> <p>Measure 5: Reduce of the quantity/volume of packaged products needed for the same purpose or use</p>
<p>Encourage the design, manufacture and use of products that are resource-efficient, durable (including in terms of life span and absence of planned obsolescence), repairable, reusable and upgradeable</p>	<p>Measures related to the target on decoupling packaging waste growth from economic growth, i.e. the increase in packaging waste in 2025 compared with 2017 should be at least 10 % less than the growth in GDP for this period</p> <p>Measure 1: Optimise packaging by design/redesign and the way products are packaged</p> <ul style="list-style-type: none"> • Action 1.1: Use fewer resources by using thinner packaging materials • Action 1.2: Use environmentally friendly packaging materials • Action 1.3: Eliminate as far as possible over-packaging of cosmetics and toothpaste • Action 1.4: Use appropriate forms of packaging to have as many products as

	<p>possible in each delivery unit (pallets, containers)</p> <p>Measures on the prevention of waste electrical and electronic equipment</p> <p>Measure 1: Eco-design of electrical and electronic equipment (EEE) to facilitate repair and reuse and to achieve sustainable products</p>
<p>Target products containing critical raw materials to prevent those materials becoming waste</p>	
<p>Encourage the reuse of products and the setting up of systems promoting repair and reuse activities, including in particular for electrical and electronic equipment, textiles and furniture, as well as packaging and construction materials and products</p>	<p>Measures related to the target on decoupling packaging waste growth from economic growth, i.e. the increasing packaging waste in 2025 compared with 2017 should be at least 10 % less than the growth in GDP for this period</p> <p>Measure 3: Increase the amount of primary reusable packaging for soft drinks, mineral waters and beer compared with 2017: in 2020 by at least 50 % and in 2025 by at least 100 %</p> <ul style="list-style-type: none"> • Action 3.1: Introduce in Law 249/2015 a single deposit value per type of primary packaging for soft drinks, mineral water 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 water and beer <p>Measures on the prevention of waste electrical and electronic equipment</p> <p>Measure 2: Establish a register containing a list of existing repair facilities including information on the type of WEEE accepted</p> <p>Measure 3: Encourage the repair of defective EEE or its components, through financial support and expansion of existing repair centres, including providing information to consumers about them</p>

<p>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 reuse of products without compromising their quality and safety</p>	<p>Measures on the prevention of waste electrical and electronic equipment</p> <p>Measure 3: Encourage the repair of defective EEE or their components, through financial support and expansion of existing repair centres, including providing information to consumers about them</p>
<p>Reduce waste generation in processes related to industrial production, extraction of minerals, manufacturing, construction and demolition, taking into account best available techniques</p>	<p>Measures for waste from wood processing and the chemical, metal and steel industries</p> <p>Measure 1: Reach voluntary agreements with the timber industry and the chemical, metal and steel industries</p> <p>Measure 2: Promote research and development to identify new clean technologies in the wood, chemical, metal and steel industries</p> <p>Industrial waste prevention measures</p> <p>Measure 1: Establish and implement a programme for the prevention and reduction of waste generated from industrial activity or, where appropriate, from any product manufactured</p> <p>Measure 2: Enter into voluntary agreements with representatives of industrial sectors to raise awareness and encourage waste prevention (in terms of both quantity and quality)</p>
<p>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 UN 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</p>	<p>Measures related to the 10 % reduction of municipal waste generated per capita by 2025</p> <p>Measure 2: Halve the amount of food wasted by 2025 compared with 2018</p> <ul style="list-style-type: none"> • 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 for certain categories of goods and inform the public about the significance of the shelf life of products • Action 2.3: Oblige public authorities to set up a procedure to control food waste in the catering sector they manage and apply the principle of ‘food waste prevention’ in public procurement • Action 2.4: Conduct information and awareness-raising campaigns (p. 331)

<p>Encourage food donation and other redistribution for human consumption, prioritising human use over animal feed and reprocessing into non-food products</p>	
<p>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 EU 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</p>	<p>Measures to prevent waste batteries and accumulators</p> <p>Measure 1: Limit and reduce the use of hazardous substances in the production of batteries and accumulators</p> <p>Measure 2: Promote research programmes to replace hazardous materials with materials with a reduced impact on human health and the environment</p> <p>Measures to prevent end-of-life vehicles</p> <p>Measure 1: Limit and reduce the use of hazardous substances in vehicle manufacturing from the design phase onwards</p> <p>Medical waste prevention measures</p> <p>Measure 2: Reduce the amount of hazardous medical waste generated by defining and applying separate collection criteria in accordance with the hazardous waste legislation provisions</p>
<p>Reduce the generation of waste, in particular waste that is not suitable for preparing for reuse or recycling</p>	
<p>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 should ensure that such restrictions are proportionate and non-discriminatory</p>	
<p>Aim to halt the generation of marine litter as a contribution towards the UN Sustainable Development Goal to prevent and significantly reduce marine pollution of all kinds</p>	
<p>Develop and support information campaigns to raise awareness about waste prevention and littering</p>	<p>Measures related to the 10 % reduction of municipal waste generated per capita by 2025</p> <p>Measure 2: Halve the amount of food wasted by 2025 compared with 2018</p> <ul style="list-style-type: none"> • Action 2.4: Carry out information and awareness-raising campaigns <p>Measure 3: Prevent generation of waste printed paper</p> <ul style="list-style-type: none"> • Action 3.3: Conduct awareness-raising campaigns on environmentally responsible consumption of printed paper

	<p>Measures related to the target on decoupling packaging waste growth from economic growth, i.e. the increase in packaging waste in 2025 compared with 2017 should be at least 10 % less than the growth in GDP for this period</p> <p>Measure 5: Making RTOs accountable for waste prevention</p> <ul style="list-style-type: none">• Action 5.2: Organise information and awareness-raising campaigns on waste prevention for both producers and consumers. Produce guides on eco-design and clean production, to be published in a separate section on their own websites. Also inform and raise 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
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Additional implemented prevention measures, not covered by Article 9 of the Waste Framework Directive

Food waste prevention

Food waste generation

In 2020, a study on food waste conducted by four universities in Romania, North Macedonia and Moldova found that Romania generates 5 million tonnes of food waste every year ⁽¹⁾. Recent statistics show that Romania wastes around 6 000 tonnes of food per day, equivalent to one portion of food for every Romanian, and that more than 2.2 billion kilogrammes of food end up in Romanian landfills every year, putting 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, Romanian Law 217/2016 on food waste reduction provided several measures to reduce food waste throughout the food supply chain. Following a 2019 evaluation, the law was amended to facilitate the donation of surplus food by simplifying donation contracts and clarifying the type of food that business operators may redistribute. Donated food is exempt from sales tax if it is redistributed within the 10 days before the expiry date ⁽³⁾.

This has produced the necessary legislative environment for retailers such as Lidl who were willing to collaborate with non-governmental organisations to reduce the amount of unsold food wasted ⁽⁴⁾.

Measures on awareness

The Ministry of Agriculture and Rural Development 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 zero food waste world’, run by the Food and Agriculture Organization of the United Nations, was translated into Romanian ⁽⁵⁾.

The ‘Romania against food waste’ project, carried out by the MaiMultVerde Association, provides an information and awareness portal on food waste. The website catalogues Romanian organisations involved in waste prevention and the use of food surpluses, and 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 to use in the fight against food waste. It also supports interactive workshops and launches projects on food waste in schools and companies in Cluj ⁽⁷⁾.

⁽¹⁾ <https://www.romania-insider.com/food-waste-romania-study>

⁽²⁾ Cantaragiu, R., 2019, ‘Corporate social entrepreneurship initiatives against food waste — the case of Lidl in Romania’, *Proceedings of the International Conference on Business Excellence* 13, pp. 505-514.

⁽³⁾ https://ec.europa.eu/food/safety/food_waste/eu-food-loss-waste-prevention-hub/eu-member-state-page/show/RO

⁽⁴⁾ Cantaragiu, R., 2019, ‘Corporate social entrepreneurship initiatives against food waste — the case of Lidl in Romania’, *Proceedings of the International Conference on Business Excellence* 13, pp. 505-514.

⁽⁵⁾ https://ec.europa.eu/food/safety/food_waste/eu-food-loss-waste-prevention-hub/eu-member-state-page/show/RO

⁽⁶⁾ <https://foodwaste.ro>

⁽⁷⁾ <https://foodwastecombat.com>

For a more comprehensive mapping of country efforts to prevent food waste, please visit the [European Commission's Food Loss and Waste Prevention Hub](#).

Reuse of products

Data

With regard to the Commission Implementing Decision (https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv%3AOJ.L_.2021.010.01.0001.01.ENG&toc=OJ%3AL%3A2021%3A010%3ATOC), this section will be updated by the EEA accordingly.

Measures to support reuse

A guide for Romania was created by Erasmus+, the Faculty of Agriculture at the University of Zagreb (Croatia), Manchester Metropolitan University (United Kingdom), Hamburg University of Applied Science (Germany), GMCA, Tallinn University of Technology (Estonia) and the University of Agriculture and Veterinary Medicine of Bucharest (Romania). The guide focuses on the circular economy and how products can be recycled and reused. It also shows the following examples that primarily deal with the reuse of products.

'Upside down' is a young Romanian company which collects and recycles textiles that are no longer being used. It recycles textile waste (rags), truck tarpaulins or rubber waste and makes colourful bags, wallets, book covers, tablet cases, phone cases 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 and sewing). It produces special accessories for various customers, companies, show organisers or individuals ⁽⁸⁾.

The non-governmental organisation '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 programme and delivered to rural schools in Romania ⁽⁹⁾.

⁽⁸⁾ <https://www.mmu.ac.uk/media/mmuacuk/content/documents/w2rin/5756-R4GM-IO4-Romanian-v3.pdf>

⁽⁹⁾ <http://www.educlick.ro/povesti-de-succes>

Best practice examples

Food waste prevention

Hypermarket chain Kaufland Romania has launched the first integrated anti-food waste campaign with its Social Canteen project for low-income families and homeless people. The company provides the products necessary to prepare community meals. Some of the food comes from stocks that need to be sold quickly and the daily menu is set to make optimal use of all resources. To date, 48 tonnes of food have been salvaged, mainly meat, fruit and vegetables. Over 100 000 servings have been offered to those in need ⁽¹⁰⁾.

Romanian ‘bonapp.eco’ has launched a mobile app to combat food waste. To turn the sustainability challenge around food waste into an economically feasible business opportunity, the app is used to purchase food close to its expiry date from retailers. Already, 35 businesses in Bucharest have joined the initiative, and expansion plans include rolling out the app across eastern Europe, signing up 5 000 locations and selling 30 million meals by 2023 ⁽¹¹⁾.

The Food Bank is a project/campaign aimed at preventing disposal of edible food, which has developed in three cities in Romania, namely Bucharest, Cluj and Roman, and in which over 15 companies are participating. The Food Bank has distributed food from traders/economic operators to disadvantaged people and has involved 72 non-governmental organisations, two food trucks and a 300 square metre refrigerated hall. Over 215 tonnes of food were distributed before 2018. The project continues to develop and involves more donor companies and many volunteers ⁽¹²⁾.

A commendable initiative is that of the supermarket chain Carrefour Romania. During July (‘the month without plastic’), in exchange for plastic brought to its stores, it gave away fruit. It managed to collect over 25 000 thousand plastic containers in exchange for 6 tonnes of fruit ⁽¹³⁾.

Reuse of products

The REDU project was developed by the association ‘Mai Bine’, a non-governmental organisation with more than 7 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 2 years of operation, REDU has become a strong initiative, not only for recycling/reusing textiles for consumers but also for raising consumer awareness.

As a result of the project’s activities, four categories of green products have been created in the workshop and are advertised in its online shop ⁽¹⁴⁾:

1. Repurposed/upcycled products made from old textiles and clothes that cannot be reused. For example, reusable bags made from men’s shirts, wall décor made from blue jeans, reusable packaging for sandwiches, kitchen items. A total of 1 018 new, useful upcycled products were created in the first year.
2. Redesigned products — in local factories, collected material scraps are used to create new garments through redesign. In the first year, three redesigned collections totalling 120 redesigned garments were created from pre-consumer waste.
3. Reused — most of the products collected are donated to disadvantaged people; however, the best products are cleaned, repaired if needed and reconditioned before being sold in the concept store as second-hand products.

⁽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/>

⁽¹⁴⁾ www.redu.org.ro

4. Recycled — old T-shirts are collected as part of the REDU project and new messages were printed on them ⁽¹⁵⁾.

⁽¹⁵⁾ <https://www.urbanwins.eu/redu-reduce/>

Links to the circular economy

Waste prevention is an integral part of the comprehensive transformation towards a circular economy. It reduces not only the input of natural resources into the economy but also the efforts required to collect and recycle waste.

Approaches to improving circularity are often linked to successful waste prevention. The following table shows which circular strategies are explicitly integrated into the waste prevention programme of Romania.

Topic	Addressed in the programme	Comments
Eco-design	Yes	Applying eco-design requirements that facilitate the reuse and treatment of WEEE (p. 307)
Repair, refurbishment and remanufacture	Yes	Encouraging the reuse 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	Yes	Offering economic incentives for manufacturers to put greener products on the market and support for recycling and recovery schemes (e.g. for packaging, batteries, EEE, vehicles) (p. 9)
Circular business models	No	
Eco-innovation	Yes	The Ministry of Economy, at the request of the responsible economic operators, proposes that the State Authority for Research and Development undertake scientific research, technological development and innovation programmes on the manufacture, composition, reusability and recoverability of packaging, as well as on optimising packaging and packaging form to reduce the specific material consumption per type of packaging and product (p. 306)
Governance, skills and knowledge	Yes	Priority governance measures for municipal waste management, to be implemented immediately, will mainly

contribute to ensuring the functioning of the integrated waste management system projects at their designed capacity (p. 346)
