

Overview of national waste prevention programmes in Europe



Portugal

2021

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General information

Name of the country/region	Portugal
Coverage of the waste prevention programme (national/regional)	National
Type of programme (stand alone or integrated into waste management plan)	Integrated into the national strategic plan for municipal solid waste (PERSU 2020)
Title of programme and link to programme	Strategic plan for municipal waste https://apambiente.pt/residuos/plano-estrategico-para-os-residuos-urbanos-persu-PERSU2020.pdf (apambiente.pt) PERSU2020+ Reflexão estratégica e ajustamentos às medidas do PERSU 2020 (Strategic reflection and adjustments to PERSU 2020 measures) https://apambiente.pt/sites/default/files/_Residuos/Planeamento/PERSU2020mais.pdf (apambiente.pt)
Duration of programme	2016-2020 (extended to 2025 by PERSU 2020+)
Language	Portuguese
Development process of the programme/revision	PERSU 2020+ makes adjustments to PERSU 2020 as a result of revisions to EU directives and does not replace it. Everything regulated in PERSU 2020 that is not subject to adjustment in this document remains in force. PERSU 2020+ sets out how the strategic plan for municipal waste 2020 needs to be adapted to achieve the 2020 targets (with an assessment in 2022), and sets out new solutions to be included in the new strategic plan for municipal waste (following the closure of PERSU 2020) to meet its commitments by 2035
Budget envisaged for implementation of the project	

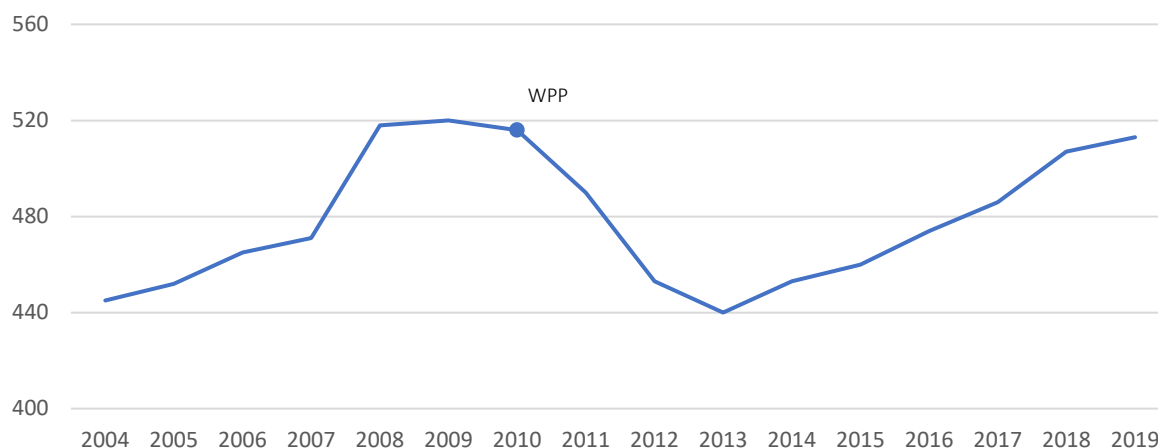
Waste generation

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

Municipal solid waste

- The generation of municipal solid waste (MSW) per capita increased between 2004 and 2019, from 445 kg per capita to 513 kg per capita (see Figure 1).
- The lowest level of MSW generation occurred in 2013 (440 kg per capita), after which levels have followed a steeply increasing trend.
- With the implementation of Portugal's first waste prevention plan (WPP) in 2010, MSW generation decreased steeply, which was probably also influenced by the global financial crisis that developed shortly before this period.
- From 2013 to 2019, an increasing trend is observed, with MSW levels rising from 453 kg per capita in 2014 to 513 kg per capita in 2019. This may have been influenced by many factors, such as population or household expenditure.
- Overall, the average MSW generation of 513 kg per capita remained above the European average of 502 kg per capita/year.

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

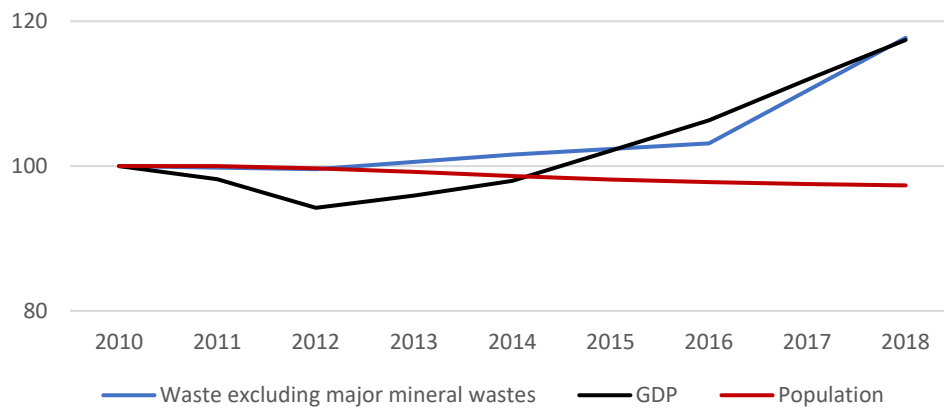


Source: Eurostat Circular Economy Monitoring Framework.

Total waste

- Total waste generation in Portugal increased between 2010 and 2018 (see Figure 2).
- A similar trend can be observed for Portugal's economic growth in terms of GDP, which decreased between 2010 and 2012 and then increased steadily between 2012 and 2018.
- Although a longer time series is needed to confirm any conclusions, Portugal does not seem to be on track to decouple total waste generation from economic growth.
- As the Portuguese population decreased throughout this time, the increase in waste generation cannot be linked to population growth.

Figure 2: Growth rate of waste (excluding major mineral wastes), GDP and population in Portugal, 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>Promote the production of sustainable products and materials to reduce:</p> <ul style="list-style-type: none"> • the amount of waste produced by reducing the material resources and energy used and by encouraging their reuse, thus reducing the amount of waste sent to landfill • the presence of hazardous substances in materials, products and waste (PERSU 2020, p. 7651) <p>The main guidelines and strategies of PERSU 2020/2020+ are:</p> <ul style="list-style-type: none"> • reduce, reuse, recycle • reinforce waste separation at point of origin • reduce waste sent to landfill • encourage energy recovery from the non-recyclable waste fraction
2.	Sectors covered	<ul style="list-style-type: none"> • Sale, retail, transport • Households • Private service activities/hospitality • Public services
3.	Priority waste types	<ul style="list-style-type: none"> • Food/organic • Plastic waste • Hazardous waste • Paper • Packaging • Waste electrical and electronic equipment/batteries • Bulky waste
4.	Target groups	<ul style="list-style-type: none"> • Supply side (designers, manufacturers, distributors, retailers and service providers) • Demand side (citizens and different communities) • Governance/regulatory system (local, regional and central levels)

Targets, indicators and monitoring

1.	Indicators proposed	<p>The main quantitative indicator is the reduction of MSW generated per person per year:</p> <ul style="list-style-type: none"> • Goal 1: reduction of 7.6 % by the end of 2016 relative to the 2012 value. In 2012, the reference value was 456 kg per person per year; therefore, the target value in 2016 was 421 kg per person per year • Goal 2: reduction of 10 % by the end of 2020 relative to the 2012 value. The target value for 2020 was 410 kg per person per year
2.	Quantitative targets	<p>The plan establishes two major objectives to be quantified:</p> <ul style="list-style-type: none"> • reduce the amount of MSW produced per inhabitant by 5 % and 15 % by 2025 and 2030, respectively, compared with 2019 values • reduce the amount of food waste produced by restaurants, production and supply chains, including agro-industry, catering, supermarkets and hypermarkets by 25 % and 50 % by 2025 and 2030, respectively, compared with 2019 values • reduce the amount of non-municipal waste per unit of GDP, in particular in the construction and public works sector, by 5 % and 10 % by 2025 and 2030, respectively, compared with 2018 values
3.	Monitoring of programme	<p>A management support group was created to evaluate the strategies established in the programme. Its progress will be monitored through biannual reports (PERSU 2020, p. 7680)</p>
4.	Evaluation of the programme	

Prevention measures

Prevention measures implemented in accordance with Article 9 of the Waste Framework Directive	
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Table 1: Specific waste prevention measures structured in accordance with Article 9 of the Waste Framework Directive

Promote and support sustainable consumption models	Information and awareness campaign aimed at consumers to raise awareness of the problem of wastes with a focus on plastics, enabling them to make choices that minimise the impact on the environment, promoting behavioural change and sustainable consumption habits. The campaign also focused on education (children and young people) and public and private procurement (PERSU 2020+, p. 75) (PERSU 2020) Characterisation of the production situation and development of a selective collection model for textile waste (PERSU 2020+, p. 137)
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	Some of the measures with an impact on packaging and packaging waste include the development of quality standards for secondary raw materials to increase the confidence of operators in the EU single market, and the establishment of an eco-design work plan to promote the repairability, durability and recyclability of products (PERSU 2020+, p. 17) Introduce a variable component in the eco-value in new licences to entities that manage specific waste streams, depending on the eco-design and reduction in packaging material (PERSU 2020)
Target products containing critical raw materials to prevent those materials becoming waste	The measures proposed in this document contribute to the substantial increase in recycling and reuse of recoverable waste, with clear advantages for ‘closing the loop’ in the transition to a circular economy and consequent reductions in the consumption of natural raw materials of limited resource. The proposals cover the entire life cycle of products, from manufacturing and consumption to waste management and the market for secondary raw materials (PERSU 2020+, p. 16)
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	Assess the value of local sites for the collection of materials and waste for reuse and repair (PERSU 2020+, p. 146) By encouraging the increase of separate collection and increasing the efficiency of waste treatment, PERSU 2020 envisages that by 31 December 2020, an overall minimum increase of 50 %, by weight, of the preparation for reuse and recycling of waste electrical and electronic equipment (WEEE), paper, cardboard, plastic, glass, metal, wood and

	<p>biodegradable municipal waste, will be achieved (PERSU 2020+, p.38)</p> <p>These measures will promote the selective collection of some plastic products contributing to the Packaging Directive target and to the preparation for reuse and recycling target envisaged in the Waste Framework Directive, a contribution that should be enhanced under this plan by:</p> <ul style="list-style-type: none"> • promoting prevention and reuse by prohibiting certain single-use products being placed on the market • setting out specific requirements to be met for specific products, as well as labelling requirements to support consumer choice • providing greater coverage of extended producer responsibility by placing charges on the producer • increasing financial costs to producers in terms of cleaning up litter • implementing warehouse systems • setting selective collection targets for some of the targeted products and conducting awareness-raising measures (PERSU 2020+, p. 76) <p>New measure regarding textile waste:</p> <ul style="list-style-type: none"> • characterisation of the production situation and development of a selective collection model for textile waste (PERSU 2020+, p. 137)
<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>Reduce waste generation in processes related to industrial production, extraction of minerals, manufacturing, construction and demolition, taking into account best available techniques</p>	<p>Encourage and increase campaigns to prevent and reduce waste production, as part of a transition to a circular economy (PERSU 2020+, p. 6)</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>Increase education and awareness campaigns on citizens' environmental sustainability in accordance with the national strategy for environmental education (ENEA) and the strategy to combat food waste (PERSU 2020+, p. 6)</p> <p>Approval of the national strategy and action plan to combat food waste (PERSU 2020+, p. 27)</p> <p>Successful initiatives have been undertaken by civil society, municipalities and the municipal waste management system that have had an impact on food</p>

	<p>waste reduction and, consequently, on waste generation:</p> <ul style="list-style-type: none"> • ‘Refood’ projects by the Re-food 4 Good Association, which takes leftover food to those in need • ‘Dose Certa’ promoted by LIPOR, which reduces the portion size served in participating restaurants so as not to generate waste • IKEA’s ‘Food is precious’ initiative, which assesses organic waste and its causes with a view to analysing and finding answers for it (PERSU 2020+, p. 78) <p>Increase environmental education and environmental awareness campaigns for citizens in accordance with the ENEA and the strategy to combat food waste (PERSU 2020+, p. 124)</p> <p>Provide support for measures to promote the food waste reduction strategy (PERSU 2020+, p. 131)</p>
<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>Despite its reduced content in total waste production, the production of textiles and hazardous waste is also subject to assessment to implement mandatory separate collection of this type of waste by 2025 (PERSU 2020+, p. 44)</p> <p>New measure in respect of hazardous waste:</p> <ul style="list-style-type: none"> • characterisation of the production situation and development of a selective collection model for small quantities of hazardous municipal waste (PERSU 2020+, p. 137)
<p>Reduce the generation of waste, in particular waste that is not suitable for preparing for reuse or recycling</p>	<p>Reinforce the application of the ‘polluter pays’ principle by differentiating the tariff scheme according to production (e.g. support pay-as-you-throw systems or payment according to the waste produced) and the destination of the waste</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>Increased financial costs to producers in terms of cleaning up litter (PERSU 2020+, p. 76)</p>
<p>Develop and support information campaigns to raise awareness about waste prevention and littering</p>	<p>Encourage and increase campaigns to prevent and reduce waste production, as part of a transition to a circular economy</p> <p>Increase education and awareness campaigns for citizens' environmental sustainability in line with the ENEA and the strategy to combat food waste (PERSU 2020+, p. 6)</p> <p>The municipal waste management system and municipalities should pursue awareness-raising campaigns that promote more responsible consumption and thus contribute to preventing waste generation (PERSU 2020+, p. 36)</p> <p>Information and awareness campaign aimed at consumers to raise awareness of the problem of plastic waste and enable them to make choices that minimise the impact on the environment, promoting behavioural change and sustainable consumption habits. The campaign also focused on education (children and young people) and public and private procurement (PERSU 2020+, p. 75)</p> <p>Increase environmental education and environmental awareness campaigns for citizens in accordance with the ENEA and the strategy to combat food waste (PERSU 2020+, p. 124)</p>

<p>Additional implemented prevention measures, not covered by Article 9 of the Waste Framework Directive</p>	
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Food waste prevention

Food waste generation

In 2012, a project on food waste (PERDA) showed that around 1 million tonnes of food is lost and wasted annually in Portugal. Most food waste occurs in agriculture and fishing (32.2 %) and during consumption (31.4 %), with the remainder wasted in distribution (28.9 %) and the food industry (7.5 %) (1).

Measures to prevent food waste

In 2014, the formal commitment 'Combating food waste: a commitment for everyone' came into force as a national common strategy for all stakeholders in the food chain. The strategy intends to

(1) https://ec.europa.eu/food/system/files/2020-05/fw_lib_fwp-strat_national-strategy_prt_en.pdf

change attitudes and develop waste-free practices and management systems across the food supply chain ⁽²⁾ ⁽³⁾.

In 2018, the national strategy and action plan to combat food waste identified 14 actions to achieve the goal of preventing and reducing food waste in Portugal. The actions focus on awareness raising, good practices, cooperation with all stakeholders, data collection and monitoring of the actions:

1. Promote awareness-raising actions for the consumer.
2. Develop awareness-raising actions for the school-age population.
3. Develop specific training actions for different segments of the chain.
4. Develop pilot projects in the field of health and nutrition.
5. Review and disseminate food safety guidelines to combat waste.
6. Disseminate good practices (projects, guidelines and success stories).
7. Promote specific locations for the sale of food products at risk of waste.
8. Facilitate and encourage the system of food donation.
9. Improve the interconnection and involvement of the state administration in EU and international regulation.
10. Create and stimulate a collaborative platform to identify availability by type of food.
11. Promote the development of innovative processes.
12. Regularly publish a statistics panel on levels of food waste, including the establishment of an area dedicated to this topic on the official statistics portal.
13. Prepare periodic reports for general presentation and dissemination.
14. Develop a methodology for the calculation of food waste at the different stages of the supply chain ⁽⁴⁾ ⁽⁵⁾.

Decree-Law No 102-D/2020, published on 10 December 2020 establishes measures to prevent food waste:

- By 2024, restaurants, catering companies, agro-industry, supermarkets and hypermarkets that produce significant amounts of biowaste must adopt measures to combat food waste.
- From 2024, food retailers, wholesalers, industry, restaurants and catering establishments are prohibited from discarding food that can still be consumed and should, for example, draw up agreements to donate food to social solidarity institutions.
- Municipal plans must integrate measures aiming at reducing food waste.

Law 62/2021, published on 19 August, approves the regime applicable to food donation for social solidarity purposes and measures to combat food waste, which (1) reinforces the obligation to donate food that can no longer be sold but is still suitable for consumption and (2) defines other measures such as the integration of food waste reduction and prevention themes in school programmes.

In 2020, a civic movement, including various public and private entities, ‘Movimento Unidos Contra o Desperdício’ (‘United against waste movement’), was created that aims to facilitate the use of surpluses, combat food waste, encourage and facilitate the donation of food leftovers, and promote responsible consumption. The movement is developing awareness and communication actions, and some specific campaigns. It also provides recipes using food leftovers and parts of food that are not usually consumed, and tips to reduce food waste at home.

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

⁽²⁾

https://www.cncda.gov.pt/images/DocumentosLegislacao/Compromissos_Voluntários_e_Otras_Iniciativas/guia_prevenir_desperdicio_alimentar.pdf

⁽³⁾ <https://kosmospublishers.com/food-waste-in-portugal-a-public-policy-with-the-commitment-of-all-society/>

⁽⁴⁾ https://ec.europa.eu/food/system/files/2020-05/fw_lib_fwp-strat_national-strategy_prt_en.pdf

⁽⁵⁾ https://ec.europa.eu/food/system/files/2018-03/fw_eu-platform_20180319_sub-ai_pres-05.pdf

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

Circular Economy Portugal implements the principles of the circular economy in specific projects, using waste prevention strategies, social innovation and cooperative actions. Circular Economy Portugal projects supporting the principles of reuse of products are:

- Re:Costura rescues clothing that would otherwise have been forgotten and ended up being thrown away in a bin or in landfill. These clothes still have some potential and are transformed by seamstresses and designers into new exclusive pieces. As part of Re:Costura, the Re:Stitching project offers sewing workshops with a focus on textile reuse ⁽⁶⁾.
- Repair Cafés: In collaboration with Fab Lab Lisboa and volunteers from AltLab and ReFaz Repair Cafés have been organised in Lisbon and in Porto ⁽⁷⁾.

Decree-Law No 102-D/2020, published on 10 December 2020 establishes that:

- To promote reuse, the producer must ensure that the user can obtain the necessary information on the reusability of the product and its components and on dismantling aspects, and that information on the content of substances of very high concern are available on the SCIP database of the European Chemicals Agency.
- The entities involved in the production, import, distribution, commercialisation and use of unsold non-food products should, whenever possible and in respect of the product brand, avoid its disposal as waste, namely by donation to social economy associations. The Portuguese Environment Agency will provide a list of such products.
- From 2014, it will be prohibited to print and distribute, unless the customer requests otherwise, receipts in sales areas and in establishments open to the public, customer loyalty cards provided by stores or commercial chains of stores, tickets from machines, and vouchers and tickets that aim to promote or reduce the price of products or services.
- Producers of the most relevant hazardous wastes are required to present a plan with the measures to be adopted to reduce both the quantity of hazardous waste generated and the risk it poses.
- Public entities should:
 - donate equipment or materials they no longer use, namely to social economy associations;
 - establish, within the scope of public procurement, procedures for acquiring goods and services with criteria for the valuation of products that generate less waste or that are reusable (e.g. unpackaged products, products packaged in reusable packaging);
 - encourage the consumption of tap water, namely by providing only tap water in facilities and at events under their responsibility.

Best practice examples

The Festival Alimenterra focuses on healthy and sustainable nutrition, food waste and the future of the food system. The festival includes short movies, debates, guided tours and waste-free cooking workshops on these topics. Panellists, such as chefs, academics, farmers and entrepreneurs, are invited to the festival to discuss issues of production, distribution, consumption and food waste

⁽⁶⁾ <https://recostura.com/about/>

⁽⁷⁾ https://www.circulareconomy.pt/?page_id=50

The Dose Certa project aims to reduce and combat food waste by raising awareness and encouraging consumers to change their eating habits, focusing on economic, environmental and health aspects. Currently, this project is under way in restaurants, school canteens and mass canteens. By recording and characterising the food waste generated in restaurants and canteens, it is possible to identify which food groups are being wasted and correct the quantities served to customers, thus reducing food waste (⁸). The Dose Certa project can reduce food waste in restaurants by up to 30 % (⁹).

FLAW4LIFE is a project co-funded by the EU LIFE programme. The idea of the project was to save tonnes of ugly-shaped but good-quality food that farmers throw away every year and avoid the unnecessary use of resources such as water, land, energy and labour in production. On a weekly basis, ugly-shaped food is purchased from local growers and then packed into boxes to sell to affiliated consumers who can pick it up at the end of the day. The pilot project was successfully launched in Lisbon, and new delivery points with the same concept have been opened (¹⁰). Other similar projects sell boxes with ugly vegetables and fruits, on a pick-up or home delivery basis.

GoodAfter.com is an online supermarket dedicated to the sale of products that are close to the end of their preferred consumption period, or even beyond that period. A discount of up to 70 % is applied to all items sold, for reasons such as changes in packaging, seasonal packaging, defective packaging or items that are close to or have exceeded the ‘best before’ date, but are still suitable for consumption, as they have not passed their ‘use by’ date (¹¹).

The Embrulha project provides biodegradable packaging free of charge to participating restaurants so that customers can take away the leftovers of their meal, allowing the food to be used instead of being thrown away (¹²).

The main supermarket chains (e.g. Continente, Auchan, Pingo Doce) are adopting measures to reduce food waste: (1) a coloured label on products close to their expiry date indicates lower prices; (2) using food that would otherwise be wasted for other food purposes, for instance using bread from the previous day to make breadcrumbs to use in fried food and using ripe bananas to make banana cakes; and (3) agreements with social solidarity institutions and animal shelters to pass on products nearing their expiry date.

FoodLoop — a contest for ideas against food waste in the city of Porto — is promoted by the city hall and will support the five best projects to become companies to change the paradigm of food.

‘To good to go’ and ‘Phenix’ are platforms that want to fight food waste by helping to connect retailers to institutions and/or consumers. Using their apps, baskets of products that would otherwise be thrown away can be purchased at reduced prices.

The Refood project is a volunteer movement organised in local communities. It is dedicated to recovering unsold food in good condition and using it to feed people in need. Volunteers collect the food from canteens, restaurants, patisseries and supermarkets on a daily basis, divide it into portions and distribute it to citizens experiencing economic difficulties.

Reuse of products

The Solidarity Reuse project is about research on the solidarity-oriented reuse sector in Portugal. For this purpose, the website reutilizacaosolidaria.info was created, based on Portuguese and European

(⁸) <https://refreshcoe.org/resources/lipor-launches-dose-certa-right-portion-project/>

(⁹) <https://eu-refresh.org/stop-it-or-wrap-it-preventing-food-waste-portugal.html>

(¹⁰) <https://www.flaw4life.com/en/content/project>

(¹¹) <https://goodafter.com/pt/>

(¹²) <https://www.lipor.pt/en/awareness/no-waste/food-waste/>

case studies. The website aims to serve as a resource for reuse to inform, inspire and promote collaboration between stakeholders and includes suggestions for actions to promote the sector ⁽¹³⁾.

ShareToy is an annual solidarity initiative of the delegation of students of students of the Department of Electronics, Telecommunications and Informatics at the University of Aveiro. The project collects and repairs toys with electronic components and donates them to disadvantaged children or to social solidarity institutions ⁽¹⁴⁾.

Associations with social purposes such as REMAR and Betel receive and collect furniture from citizens who would otherwise throw it away. Members of the associations, mainly people suffering from social exclusion, repair and restore the furniture and then sell it. The money collected is used to fund the association's activities.

Textile street containers are located across the country and are used to collect non-waste textiles by private enterprises, e.g. HUMANA. This enterprise separates the textiles, and those that are in suitable condition to be reused are delivered to social associations or are sold in second-hand shops (HUMANA has some of these shops).

'Dar e Receber' is a publicly funded project, which has a platform that aims to promote the donation of non-food products and equipment in good condition to social institutions by facilitating contact between those who want to donate and those who need to receive. Social institutions are responsible for contacting donors and passing on the goods to those who need them.

⁽¹³⁾ https://www.circulareconomy.pt/?page_id=2863

⁽¹⁴⁾ <https://www.ua.pt/pt/noticias/0/61668>

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 Portugal.

Topic	Addressed in the programme	Comments
Eco-design	Yes	Some of the measures with an impact on packaging and packaging waste include the development of quality standards for secondary raw materials to increase the confidence of operators in the single market, and the establishment of an eco-design work plan to promote the repairability, durability and recyclability of products (PERSU 2020+, p. 17)
Repair, refurbishment and remanufacture	No	
Recycling	Yes	For example, by 31 December 2020, PERSU 2020 envisages an overall minimum increase of 50 % by weight of the preparation for reuse and recycling of WEEE, paper, cardboard, plastic, glass, metal, wood and biodegradable municipal waste by encouraging an increase in separate collection and increasing the efficiency of waste treatment (PERSU 2020+, p. 38)
Economic incentives and finance	Yes	Economic and financial instruments play an essential role in inducing behaviour as long as they are properly constructed and their values are adjusted to reality. In this regard, it is understood that the TGR, an excellent instrument for inducing behaviour in this area, has not produced the desired effects, so it will be important to adopt measures to correct this situation (PERSU 2020+, p. 138)
Circular business models	No	
Eco-innovation	Yes	Incentives to support innovation in a circular economy context by strengthening incentives for technological innovation and investment in solutions for alternative and sustainable materials, products and business models, seek to mitigate possible impacts for small and medium-

		<p>sized enterprises that may arise from advances in the EU legislation on plastics, and demand-side support instruments have been created that aim to facilitate public procurement processes in innovation (PERSU 2020+, p. 75)</p>
Governance, skills and knowledge	Yes	<p>The PERSU 2020 management support group was established and appointed and revealed difficulties in ensuring the implementation of the measures set out in the plan, given the governance model in place and the fact that many measures are dependent on institutions belonging to ministries other than the ministry responsible for the environment, which have other agendas and objectives (PERSU 2020+, p. 142)</p>