

# Waste prevention country profile

# Croatia

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European Environment Agency



## Country profile: Croatia

### General information

Name of the country/ region	Croatia
Coverage of the waste prevention programme (national/ regional)	National
Type of programme (stand alone or integrated into waste management plan)	Integrated into waste management plan
Title of programme and link to programme	<p>ODLUKA O DONOŠENJU IZMJENA PLANA GOSPODARENJA OTPADOM REPUBLIKE HRVATSKE ZARAZDOBLJE 2017. –2022. GODINE</p> <p><a href="https://narodne-novine.nn.hr/clanci/sluzbeni/2022_01_1_1.html">https://narodne-novine.nn.hr/clanci/sluzbeni/2022_01_1_1.html</a></p> <p>Amendments to the Waste Management Plan of the Republic of Croatia for the period 2017-2022 (English version of the amendment not available)</p>
Duration of programme	2017-2022, with amendments applicable to 2022.
Language	Croatian English
Contact person in the country/region	N/A
Development process of the programme/ revision	The amendments to the Waste Management Plan 2017-2022 are adopted only for 2022. Meanwhile, a new Waste Management Plan 2023-2029 is being developed (with goals until 2035). Measures defined in 2022 will continue to be implemented in the next planning period.
Foreseen budget for implementation of the project	N/A

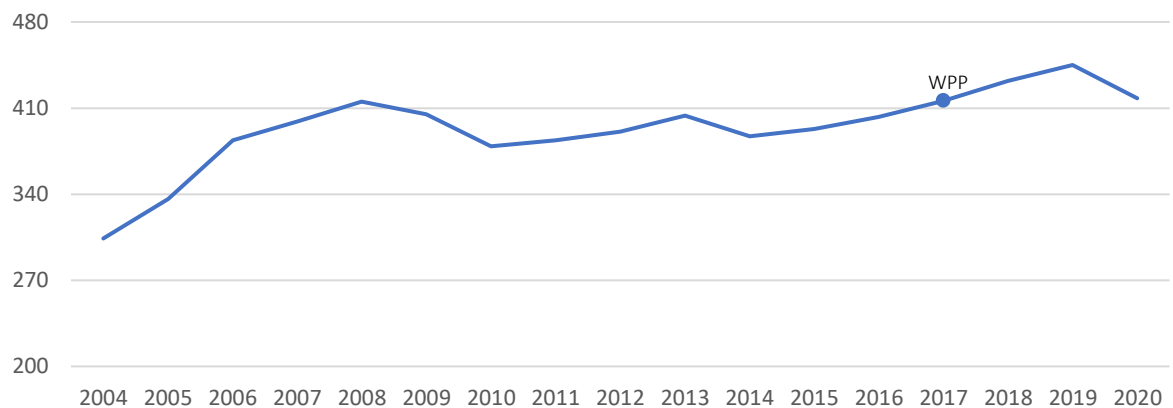
## WASTE GENERATION

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

### MSW

- According to Eurostat, municipal waste generation in Croatia increased from 304 kg per capita in 2004 to 418kg per capita in 2020. The trend shows small peaks for 2008 and 2013. The waste generation trend shows a continues increase from 2014 until 2019 with a small drop in 2020.
- However, the MSW generation throughout the time period remained below the European average of 517 kg<sup>1</sup> per capita in 2020.
- The slightly decreasing trend between 2008 and 2010 can potentially be explained by the global financial crisis in 2008.
- Although the first WPP has been implemented in 2017, a mitigation of MSW has not been recorded yet.

Figure 1: Municipal waste generation in Croatia (kg per capita), 2004-2020.



Source: Eurostat [ENV\_WASMUN]

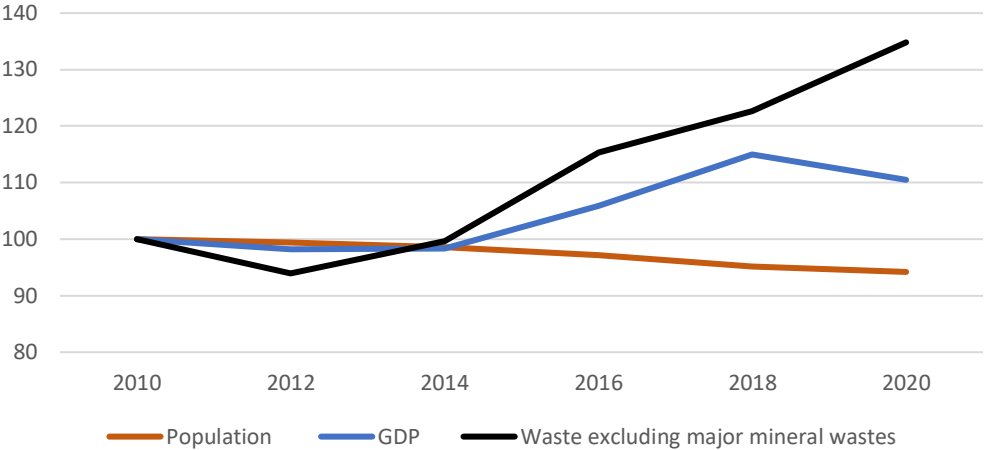
### Total waste

- The total waste generation in Croatia decreased between 2010 and 2012 and increased steadily for the years thereafter (see Figure 2).
- Between 2010 and 2014 GDP decreased slightly (by 2%) but after that continued to increase, to reach the peak in 2018 (15% increase from 2010 level).
- Although a longer time series is needed to solidify a decoupling conclusion, Croatia does not seem to be on track to decouple total waste generation from economic growth.
- A link between waste generation and population growth, which followed a decreasing trend between 2010 and 2018, cannot be observed.

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<sup>1</sup> Based on data collected from Eurostat in September 2022.

Figure 2: Growth rate of waste (excluding major mineral wastes), GDP (main GDP aggregates, chain linked), and population, 2010-2020, (2010=100).



Source: Eurostat [ENV\_WASGEN, NAMA\_10\_PC, DEMO\_GIND]

## 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 overall objective is to establish a high-quality waste management system based on waste prevention and an efficient system of separate waste collection and adequate recovery (p. 75). General objectives (p. 75) are: <ul style="list-style-type: none"><li>• to separate economic growth from the increase in waste;</li><li>• to protect natural resources;</li><li>• to reduce the amount of landfill waste;</li><li>• to reduce pollutant emissions into the environment;</li><li>• to reduce the hazard to human health and the environment.</li></ul>
2.	Sectors covered	<ul style="list-style-type: none"><li>• agriculture;</li><li>• construction and infrastructure;</li><li>• sale, retail, transport;</li><li>• households;</li><li>• private service activities, hospitality;</li><li>• public services.</li></ul>
3.	Priority waste types	<ul style="list-style-type: none"><li>• food/organic;</li><li>• construction and demolition waste;</li><li>• hazardous waste;</li><li>• household/municipal waste;</li><li>• paper/cardboard;</li><li>• packaging;</li><li>• waste electrical and electronic equipment/batteries (WEEE).</li></ul>
4.	Target groups	Although target groups are not mentioned directly, the programme mentions: <ul style="list-style-type: none"><li>• municipalities;</li><li>• industries;</li><li>• households;</li><li>• institutions</li></ul>

## Targets, indicators and monitoring

Indicators proposed	<p>In the Waste Management Plan 2017-2022, the annex (Section 12.4. Waste prevention measures overview) includes a list of various indicators related to the proposed measures (see point 14).</p> <p>General indicators:</p> <ul style="list-style-type: none"><li>• EU funding spent on waste management projects in the field of waste prevention;</li><li>• an increase in the number of green and sustainable public and corporate procurements;</li><li>• an increase in the number of education programmes/sessions on green and sustainable public procurement;</li><li>• an increase in the number of informative materials on the topic of reuse of used products;</li><li>• the number of organised events for the collection, exchange and trading of useful products.</li></ul> <p>1. Construction and demolition waste prevention:</p> <ul style="list-style-type: none"><li>• a reduction in the total amount of generated construction and demolition waste;</li><li>• an increase in the number of users of the subsidy fee for the reuse of demolition material.</li></ul> <p>2. Bio-waste prevention:</p> <ul style="list-style-type: none"><li>• the number of national, as well as local (in local self-government units), campaigns conducted;</li><li>• the number of local waste management plans that include food waste prevention measures;</li><li>• the number of cities/municipalities conducting educational and informative campaigns on waste prevention;</li><li>• the number of organised workshops at a local level;</li><li>• the number of informative flyers and brochures produced;</li><li>• a reduction in food waste that ends up in landfills (% or tonnes);</li><li>• a reduction in the total amount of food waste generated (% or tonnes);</li><li>• the number of households that compost their own waste;</li><li>• the number of campaigns on composting at home;</li><li>• the number of food donation initiatives.</li></ul> <p>3. Municipal waste prevention:</p> <ul style="list-style-type: none"><li>• a reduction in the total amount of municipal waste generated (% or tonnes);</li><li>• a reduction in the consumption of light plastic bags (number of bags put on the market);</li><li>• an increase in the number of companies recovering or using useful parts of waste;</li><li>• the number of newly opened workplaces in waste reuse.</li></ul> <p>4. WEEE waste prevention:</p> <ul style="list-style-type: none"><li>• a reduction in the total generated amount of WEEE;</li><li>• an increase in the number of companies recovering or using useful parts of waste;</li><li>• the number of newly opened workplaces in waste reuse.</li></ul> <p>5. Paper/cardboard waste prevention:</p> <ul style="list-style-type: none"><li>• a reduction in the total amount of paper and cardboard waste generated.</li></ul> <p>In addition, the Amendment to the Waste Management Plan 2017-2022 includes the following indicators:</p> <ul style="list-style-type: none"><li>• Introduction of incentive fees</li><li>• Set up of functional system for collecting and processing food waste data</li></ul>
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	<ul style="list-style-type: none"> <li>• Event held devoted to the knowledge exchange about green and sustainable construction</li> <li>• Implementation of a national campaign on the topic of waste prevention</li> <li>• Improvement on the web portal for waste prevention</li> <li>• 2% reduction on the amount of very light plastic carrier bags placed on the market compared to the previous year</li> <li>• Implementation of a functional website for green public procurement</li> <li>• Implementation of one training on green public procurement</li> <li>• One database on good practice examples of green public procurement</li> </ul>
Quantitative targets	<p>Targets for waste management that need to be achieved in 2022:</p> <ul style="list-style-type: none"> <li>• Objective 1.1: Reduce the total amount of municipal waste produced by 5% compared to 2015.</li> <li>• Objective 1.2: Minimum recovery through recycling and preparation for reuse 52 %</li> <li>• Objective 1.3: Separately collect 40% of the mass of produced biowaste, which is an integral part of municipal waste</li> <li>• Objective 1.4: Dispose of less than 25% of the mass of produced communal waste at landfills</li> <li>• Objective 2.1: Separately collect 75% of the mass of produced construction waste</li> <li>• Objective 2.2: Improve the waste packaging management system</li> <li>• Objective 2.3: Improve the management system of other special categories of waste</li> </ul> <p>Targets for municipal and construction waste, waste disposal, single-use plastic products</p> <ul style="list-style-type: none"> <li>• Municipal waste: <ul style="list-style-type: none"> <li>○ Minimal recovery by recycling and preparation for reuse set at 55% by 2025, 60% by 2030 and 65% by 2035</li> <li>○ Maximum amount of waste deposited at landfill to be 10% of the mass of the total municipal waste produced by 2035</li> </ul> </li> <li>• Biodegradable municipal waste: the maximum permitted mass of biodegradable municipal waste for disposal per year for all waste management permits is 264,661 tonnes, which is 35% of the biodegradable municipal waste produced in 1997.</li> <li>• Single use packaging products: <ul style="list-style-type: none"> <li>○ Beverage glasses and food containers (including caps and lids): Separate collection for recycling to reach 90% by 2029, calculated as of the mass share of products placed on the market in a year.</li> <li>○ Beverage bottles up to 3 litres (including caps and lids): Minimum recycled plastic content at 30% by 2030, calculated as an average for all beverage bottles placed on the Croatian market</li> </ul> </li> </ul> <p>Targets for waste vehicles, waste batteries and accumulators and WEEE (by 2035)</p> <ul style="list-style-type: none"> <li>• Waste vehicles: Reuse and recovery rate at 95% <ul style="list-style-type: none"> <li>○ Reuse and recycling rate at 85%</li> </ul> </li> <li>• Waste batteries and accumulators: Separate collection at 45%</li> <li>• WEEE: Separate collection at 65% calculated as percentage of the average mass of EEE placed on the market over the last 3 year period <ul style="list-style-type: none"> <li>○ Separate collection at 85% for EEE produced in Croatia</li> <li>○ Quantitative targets for processing and recovery rates as well as rates for preparation for reuse and recycling, separated by specific types of WEEE based on size.</li> </ul> </li> </ul> <p>Targets for waste packaging, tires and oil</p> <ul style="list-style-type: none"> <li>• Waste packaging:</li> </ul>

	<ul style="list-style-type: none"> <li>○ By 2025: Recycle at least 65% of total packaging waste, recycle at least the following masses of material in waste packaging: 50% plastic, 25% wood, 70% unpainted metal, 50% aluminum, 70% glass, 75% paper and cardboard</li> <li>○ By 2030: Recycle at least 70% of total packaging waste, recycle at least the following masses of material in waste packaging: 55% plastic, 30% wood, 80% unpainted metal, 60% aluminum, 75% glass, 85% paper and cardboard</li> </ul>
Monitoring of programme	<p>The amendments to the Waste Management Plan 2017-2022 are adopted only for the year 2022 as the last year in this planning period in order to align with the latest changes to goals and policies in waste management at the EU level, while the new Waste Management Plan of the Republic of Croatia for the next planning period 2023 -2029 is being developed and will be fully based on the goals until 2035.</p> <p>As such, programme monitoring for this amendment document is less relevant.</p>
Evaluation of the programme	At least once every six years (Article 109 of the new Law on Waste Management). <sup>2</sup>

<sup>2</sup> [https://narodne-novine.nn.hr/clanci/sluzbeni/2021\\_07\\_84\\_1554.html](https://narodne-novine.nn.hr/clanci/sluzbeni/2021_07_84_1554.html)



## Prevention measures

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

Promote and support <b>sustainable consumption</b> models	<ul style="list-style-type: none"> <li>• Introducing obligatory payment for light plastic bags</li> <li>• Defining the usual criteria for procurement objects that can simply be included in the competition documentation</li> <li>• Establishing a database of “green” products</li> <li>• Educating the conductors of public and corporate procurements aimed towards environmental specifications and those specifically related to waste prevention</li> <li>• Establishment of the Committee for Circular Economy</li> </ul>
Encourage the design, manufacturing and use of products that are <b>resource-efficient, durable</b> (including in terms of life span and absence of planned obsolescence), <b>reparable, re-usable</b> and <b>upgradable</b> .	<ul style="list-style-type: none"> <li>• Awarding prizes for best eco-design and ecologically responsibly business</li> <li>• Establishment of the Committee for Circular Economy</li> </ul>
Target products containing <b>critical raw materials</b> to prevent that those materials become waste.	
Encourage the re-use of products and the setting up of systems promoting <b>repair</b> and <b>re-use activities</b> , including in particular for electrical and electronic equipment, textiles and furniture, as well as packaging and construction materials and products.	<ul style="list-style-type: none"> <li>• Creating Guidelines to establish a re-use system in the RC</li> <li>• Conducting a pilot project for the establishment of a re-use system</li> <li>• Establishing common spaces (re-use centres and repair centres), establishment of centers for reuse</li> <li>• Establishing cooperation with repairmen and social institutions</li> <li>• Establishing subsidy fees for the re-use of demolition material.</li> </ul>
Encourage, as appropriate and without prejudice to intellectual property rights , the <b>availability of spare parts, instruction manuals, technical information</b> , or other instruments, equipment or software enabling the repair and re-use of products without compromising their quality and safety.	<ul style="list-style-type: none"> <li>• Publishing a Guide for repair/loaning/use of used electric and electronic devices and equipment</li> </ul>

<p>Reduce waste generation in processes related to industrial production, extraction of minerals, manufacturing, construction and demolition, taking into account best available techniques.</p>	<ul style="list-style-type: none"> <li>• Introducing the topic of “green building” in professional exams</li> <li>• Creating a Guide to green and sustainable building</li> <li>• Development of an action plan for separate collection and recycling of construction waste</li> </ul>
<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 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.</p>	<ul style="list-style-type: none"> <li>• Educating LSGUs via workshops and preparing educational material on methods of defining measures and activities for bio-waste prevention</li> <li>• Conducting statistical analyses in order to ensure complete and reliable data necessary to monitor progress in bio-waste prevention</li> <li>• Home composting</li> </ul>
<p>Encourage food donation and other redistribution for human consumption, prioritising human use over animal feed and the reprocessing into non-food products.</p>	<ul style="list-style-type: none"> <li>• Adopting an Ordinance on regulating the food donation system</li> <li>• Starting food donation themed campaigns</li> <li>• Starting food donation initiatives in the RC</li> </ul>
<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 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.</p>	<ul style="list-style-type: none"> <li>• Improvement of the medical waste management system</li> <li>• Preparation of a study on the amount of waste containing asbestos by county</li> <li>• Analysis of existing and required capacity for processing hazardous waste</li> </ul>
<p>Reduce the generation of waste, in particular waste that is not suitable for preparing for re-use or recycling.</p>	<ul style="list-style-type: none"> <li>• Introduction of waste disposal fee</li> </ul>
<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 shall ensure that such restrictions are proportionate and non-discriminatory.</p>	<ul style="list-style-type: none"> <li>• Introducing an obligatory fee for light plastic bags and an obligation to sellers that they inform the consumers on the negative effect of large consumption of plastic bags on the environment at the location where plastic bags are sold, including locations where consumers take plastic bags by themselves (bags in rolls for fruits and vegetables etc.)</li> <li>• Establishment of a management system for single-use plastic products (moist tissues, balloons, tobacco products with filters and filters, and fishing tools containing plastic)</li> </ul>

<p>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.</p>	
<p>Develop and support information campaigns to raise awareness about waste prevention and littering.</p>	<ul style="list-style-type: none"> <li>• Conducting informational campaigns including making and promoting flyers and textbooks</li> <li>• Adding content and directions for waste prevention to the MEE website</li> <li>• Organising an educational campaign in schools and kindergartens</li> <li>• Creating a textbook for citizens</li> <li>• Improving the existing or designing a new Internet portal</li> <li>• Media advertising</li> </ul>
<p>Additional implemented prevention measures, not covered by Article 9</p>	<ul style="list-style-type: none"> <li>• According to the new Law on Waste Management, more substances or objects, that arise during the production, shall be considered as by-product and not waste (Article 15).<sup>3</sup></li> <li>• The new Law on Waste Management also prohibits the placing of certain single-use plastic products on the market (Article 17).</li> <li>• Furthermore, the product manufacturer has now more obligations to ensure the reuse/recycling of the product and the prevention of waste (Article 92).</li> <li>• The new waste management information system serves to supervise the implementation and management of waste prevention activities and provides a waste prevention portal and application for monitoring projects and activities of waste prevention, reuse and educational and information activities (Article 129).</li> </ul>

## FOOD WASTE PREVENTION

### Food waste generation

After a multi-year trend of established values of the amount of biowaste generated from municipal waste, which in the period from 2015 to 2019 amounted to an average of about 530,000 tons, in 2020 a drop in the said amounts by about 8% is recorded, which can also be attributed to the implemented measures for waste prevention. In 2020, a total of 488,850 tons of biowaste was generated from municipal waste.

### Measures to prevent food waste

Croatia has, together with other EU Member States, committed to achieving the goal set out in the EU and UN 2030 Agenda for Sustainable Development with the relevant Sustainable Development Goals, specifically Target 12.3 Ensure sustainable consumption and production patterns, with the specific aim to halve per capita global food waste at the retail and consumer levels and reduce food losses along production and supply chains. For this reason, the Government of the Republic of Croatia adopted a food waste prevention and reduction plan (2019 – 2022) in 2019, together with an accompanying program for its implementation.

<sup>3</sup> [https://narodne-novine.nn.hr/clanci/sluzbeni/2021\\_07\\_84\\_1554.html](https://narodne-novine.nn.hr/clanci/sluzbeni/2021_07_84_1554.html)

The food waste reduction and prevention plan contains 6 main measures and related activities that apply to the entire food value chain, which were designed in cooperation with relevant actors. The planned activities, some of which have already been implemented, include:

- drafting of sectorial guidelines for food waste reduction;
- the promotion of short supply chains;
- the launch of a Platform to share experiences and best practices;
- the establishment of voluntary agreements with stakeholders to reduce food waste;
- the definition of criteria for the most successful food waste fighters and the organisation of an award ceremony;
- a campaign to raise awareness of the issue;
- the development of educational materials for preschool and school-age children;
- providing financial support to innovative and research projects in the field of food waste and;
- activities related to monitoring food waste levels.

The food waste prevention and reduction plan defines prevention as the most desirable option, and in the case of surplus food, the first option would be to redistribute it to people in need and to animal feed, respectively.

Encouraging food donation is one of the most important measures in the national food waste prevention plan. Based on the EU Food Donation Guidelines, Croatia developed similar guidelines at national level in 2019. The legal framework for food donation has been improved to reduce administrative burdens for food business operators, to allow the donation of food products until the end of their 'use by' date and after the expiry of their 'best before' date if still safe for human consumption. Workshops were held with food business operators in order to clarify the legal food safety requirements in relation to food donation and to encourage them to join the food donation system.

Since 2015, there have been tax incentives for food donations: VAT is not imposed on donations of foods close to their expiration date, nor for foods that could not be placed on the market (for other reasons than food safety considerations). Also, if made under certain conditions, donations from profit tax payers are tax deductible and income tax payers can also benefit from a tax deduction on food donations. Furthermore, the Ministry of Agriculture launched an IT system to facilitate food redistribution, which improves the communication between donors and charities. Moreover, a Food Bank Feasibility Study was conducted.

Several activities and informative materials have been organised and developed in order to raise consumers' awareness of the issue of food waste: a video explaining the difference between date markings, a brochure 'Understanding food information and consumer attitudes about food waste', a short animated film to encourage consumers to use surplus food, a consumer campaign (2020) under the slogan 'Eat and share! #Food is not waste!' etc. Tips for reducing food waste are usually published before the holidays on the website of the Ministry of Agriculture.

In line with the national food waste prevention plan, the curricula for pre-school, primary and secondary education include topics such as sustainable development, civic education and health, which cover food waste aspects. A teacher education module on the theme of sustainable development, including food waste prevention, has been created. In addition, the Agency for Vocational Education and Training has also developed teacher training on food waste as part of the module Socially Useful Learning. In 2020, school projects were related to the topic 'prevention and reduction of food waste (regional aspect)', in accordance with the food waste prevention and reduction plan, the action plan for education for sustainable development and UN Agenda 2030.

Since 2013, Croatia has been implementing the school scheme for primary and secondary school students to promote healthy eating habits and to increase the share of fruits and vegetables, milk and dairy products in pupils' daily diet. Food waste prevention is one of the topics included as part of additional educational measures in the context of the scheme.

In line with the food waste reduction and prevention plan, the Ministry of Agriculture has published sectorial guidelines for the retail sector and for hospitality and institutional kitchens. The publication of guidelines for the primary production and food processing sectors is planned to take place by the end of 2021.

Additionally, MoESD has developed and maintains the Waste Prevention Portal, which contains general information related to waste prevention and prescribed waste prevention measures. It provides basic information on ways to prevent bio-waste and to reduce food waste as well as examples of food waste prevention activities conducted by local self-governing entities and companies. A new webpage dedicated to food waste prevention is being planned for 2022. The project is led by the Ministry of Agriculture, in the framework of national recovery and resilience plan of the Republic of Croatia.<sup>4</sup>

These measures are to be implemented between 2019 and 2022. The total investment for all measures amounts to HRK 8.020.500,00 (~1.242.313,26 USD).<sup>5</sup>

## REUSE OF PRODUCTS

### Data

According to the commission's early warning report on Croatia, the country's recycling rate (including composting) reported to Eurostat was 21% in 2016. The rate of municipal waste landfilling was 77%, making it among the highest in the EU.<sup>6</sup>

*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](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

Croatia's first reuse-center has opened in 2017 in Prelog. Discarded objects will revive in the center rather than end up in the landfill. RE-USE center in Prelog consists of two parts: the exhibition-sales area of 220 squares and the warehouse-workshop section, also of 220 square meters. Large (bulky waste) such as furniture, footwear and clothing, consumer goods (utensils, books, toys, children's and sports equipment ...) that is usually thrown at the landfill will be repaired or refurbished and reused. The benefits of the center are a high level of work intensity, which requires a greater number of employees, the employment of people with invalidity and, of course, the prolongation of the useful life of the goods by re-use, which reduces environmental pressure.<sup>7</sup>

Article 16 of the Law on Waste Management (adopted on 16<sup>th</sup> July 2021) contains many information regarding the obligations and legal entities of reuse-centers in Croatia.

Measure 10 of the Waste Prevention Programme includes reuse procedures that shall encourage the reuse of products. For example, within recycling yard, a so called "Re-use corner" may be organised, where citizens can bring things they do not need anymore, and other citizens (of weaker financial status) can take these things for further use. Additionally, a reuse-campaign would include making posters, brochures, flyers and video-informational educational content, containing useful information on the value of so-called used-up materials and the possibilities of its repair and/or re-use. These

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<sup>4</sup> [https://ec.europa.eu/food/safety/food\\_waste/eu-food-loss-waste-prevention-hub/eu-member-state-page/show/HR](https://ec.europa.eu/food/safety/food_waste/eu-food-loss-waste-prevention-hub/eu-member-state-page/show/HR)

<sup>5</sup> [https://ec.europa.eu/food/system/files/2020-05/fw\\_lib\\_fwp-strat\\_national-strategy\\_hrv\\_en.pdf](https://ec.europa.eu/food/system/files/2020-05/fw_lib_fwp-strat_national-strategy_hrv_en.pdf)

<sup>6</sup> <https://balkangreenenergynews.com/croatia-says-taking-steps-as-eu-finds-it-at-risk-of-missing-2020-municipal-waste-recycling-target/>

<sup>7</sup> [https://zelena-akcija.hr/en/programmes/waste/first\\_re\\_use\\_center\\_in\\_croatia\\_and\\_2\\_new\\_zero\\_waste\\_municipalities](https://zelena-akcija.hr/en/programmes/waste/first_re_use_center_in_croatia_and_2_new_zero_waste_municipalities)

materials will contain data on where and how the citizens can donate their used products, i.e. exchange them for some others that they need. For this goal, it is necessary to establish an Internet portal for re-use, collecting and distributing products (clothes, books, electronic and electric equipment, computers, furniture, food etc.) which can be used in the widest sense of that word and which are useful and necessary to someone, donated by people that do not need them anymore. The portal can be organised within the existing Croatian Waste Market, started by the CCE, organised with the goal of connecting business partners offering or seeking all types of useful waste/secondary resources that can be used as input resource for further production.

## **Best practice examples**

### **The City of Prelog**

Within 5 years, the city of Prelog in northern Croatia has tripled the percentage of its separately collected waste. The city has reduced the amount of the mixed waste local residents produce to below 100 kg per capita, becoming a zero waste best practice in Croatia and beyond. This progress was achieved with

- Door-to-door separate waste collection
- Construction of new local waste management infrastructures
- Create a fair but profitable system
- Effective education & communication programmes for citizens
- Strong cooperation between the NGO Zelena akcija / Friends of the Earth Croatia / Zero Waste Croatia, the city of Prelog, and 11 other neighbouring municipalities (of different political affiliations) operated by the public company PRE-KOM from Prelog.<sup>8</sup>

### **PRE-KOM**

12 municipalities have joined the successful system run by the municipal company PRE-KOM, which is the sustainable waste management national leader in Croatia with the best results in reduction, separate collection, recycling and composting and which services are available to more than 38,000 people.

New guidelines have been implemented since 2015 with which PRE-KOM has become the leading municipal company in Croatia with an average recycling rate of 56% in 2018 (while Croatia is at 24%) and disposing only 79 kg of mixed waste per capita annually (Croatian average is 315 kg) in its 11 municipalities. Municipalities raised the separate waste collection rates from 10-20% to 50-60% in a short period and are very decisively moving to reach 70% by 2020. In comparison, this is Croatia's goal by 2030. According to the 2017 data, published by the Agency of environment, among the 10 most successful municipalities in Croatia, 6 of them are part of PRE-KOM's system. The best results in 2017 were achieved in Prelog with 55.9% of separate waste collection, while preliminary results for 2018 indicate further progress: Belica (65.68%) and Prelog (60.78%).

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<sup>8</sup> <https://zerowastecities.eu/bestpractice/the-story-of-prelog/>

## Links to circular economy

Some policies and instruments in the EU and on the national level already have secured the tools and subsidies in accordance with the model of circular economy.

<b>Topic</b>	<b>Addressed in the programme</b>	<b>Comments</b>
Eco-design	Yes	When it comes to measures affecting design, a positive movement has been noted in regards with the ISO 14001 waste management system.
Repair, refurbishment and remanufacture	Yes	Activities of organising common spaces (re-use and repair centres) would take place, serving to collect, sort and/or repair used products, and connecting with humanitarian institutions that could re-use these products.
Recycling	Yes	Recycling yards for construction and demolition waste.
Economic incentives and finance	Yes	Economic instruments such as incentives for clean purchases or the institution of an obligatory payment by consumers for a given article or element of packaging that would otherwise be provided free of charge.
Circular business models	Yes	e.g. establishment of reuse-centers.
Eco-innovation	Yes	Just shortly mentioned, but no detailed measure. (p. 73)
Governance, skills and knowledge	Yes	Certain permits direct the so called “large polluters” to use the best available techniques.