



Ministry of Foreign Affairs

Waste management and circular economy efforts in Croatia

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EU and national policy framework

Waste management has been adopted in the EEC Environmental Action Plan as early as 1972. It has been part of EU priority policy ever since ([Towards a circular economy, P 477](#)). The policy is based on the "waste hierarchy" which sets a priority order when shaping waste policy: 1, prevention, 2, (preparing for) reuse, 3, recycling, 4, recovery and, 4, as the least preferred option, disposal including landfilling and incineration without energy recovery ([European Commission, 2016](#)). Furthermore, the Commission launched the [Circular Economy Package](#) in 2015, including different revised legislative proposals on waste which were intended for stimulation of Europe's transition towards a circular economy.

As an EU MS Croatia must also adopt this circular economy package. It is, however, important to note that Croatia is still in a transition period in the field of waste management until January 2019. A second derogation was granted until 1 January 2021 with regards to the amount of biodegradable waste going into landfills (Internal document, Information on the results of EU accession, TRANSITIONAL PERIODS). There are a number of Croatian regulations managing the policy framework of Croatia with regards to waste management and the circular transition aiming at streamlining the policy with that of the rest of the EU.

- The Act on Sustainable Waste Management ([OG, No. 94/2013](#)),
- Ordinance on waste management (OG, No. 23/2014, 51/2014, 121/2015, 132/2015),
- Ordinance on packaging and packaging waste (OG, No. 88/2015, 78/2016),
- Waste Management Strategy of the Republic of Croatia (OG No. 130/2005),
- Ordinance on by-products and end-of-waste status (OG No. 117/14)
- Waste Management Plan for the Republic of Croatia for the period from 2017 to 2022 ([OG No. 3/2017](#)).
- Other special waste categories like waste textile and footwear, waste tyre, waste oil, waste batteries and accumulators, vehicles, medical waste, waste electrical and electronic equipment, construction waste and waste containing asbestos are regulated with additional regulations ([Regulation and international treaties, Ministry of Environment and Energy](#)).

Situation in Croatia

Aforementioned summation shows the Croatian government, and national and local authorities made efforts to create and publish strategies, plans, and guidelines on waste management ([Croatia Eco-innovation index](#)). Even though Croatia conducts these efforts, they are not nearly there. Croatia, like most other new member states, does not have a tradition of recycling comparable with its Western European counterparts. Especially in municipal areas and cities, waste management is based on older systems which are not very productive. Many of these systems are based on landfilling and have a low recycling rate. Zagreb, for instance, made somewhat less than 5 kg waste recycling per capita of various waste fractions in the year 2016, compared with an average of 108 kg for other European capitals ([Concept of Sustainable Waste Management in the City of Zagreb](#)).

Croatia is only just beginning its transition to a circular economy. Due to suboptimal planning of waste management, insufficient incentives to manage waste according to the waste hierarchy, insufficient (door-to-door) separate collection of waste, lack of a clear allocation of tasks and coordination between the different administrative levels, and insufficient enforcement capacity, Croatia is lagging behind in achieving the EU's waste targets. Croatia was late in adopting the national waste management plan and the waste prevention programme which are the necessary tools to reflect the existing policies and to develop a strategy to achieve EU waste management targets. These key implementation documents are also relevant to securing key funds under the EU's Cohesion Policy ([EU environmental Implementation Review 2017](#)).

Croatian situation with regard to municipal waste and separate collection

Regarding the origin of the waste, the largest portion is household waste (31%), which includes different types of waste produced by citizens, from municipal waste to other types of waste like, for example, end of life vehicles ([Waste management plan Croatia, 1.1.1](#) data from 2017). In order to fulfil all obligations before the end of the transition period Croatia must reduce landfilling to only residual waste, generated waste must be dealt with differently in an environmentally and economically sustainable way, landfilling must be replaced by other, more sustainable, efficient, and modern processes. In order to fulfil the 50% target of the Waste Framework Directive by 2021 as well as the diversion targets of the EU Landfill Directive, Croatia has to make exceptional progress ([Concept of Sustainable Waste Management in the City of Zagreb](#) P 254).

As of 2015, Croatia has committed to providing separate collection of paper, plastic and glass, electrical and electronic equipment, waste batteries and accumulators, end-of-life vehicles, waste tires, waste oil, waste textiles, and medical waste. The local authorities are responsible for the collection of hazardous waste, waste paper, metal, glass, plastics, and textiles, and coarse (bulky) waste. They are required to provide recycling yards, setting an appropriate number and types of containers for separate collection covered by the waste management system for special category of waste, and informing households of the change in situation (idem).

Some cities have made progress. The six leading municipalities in this field, the City of Prelog and surroundings, have signed the European "Zero Waste 2020" strategy. In signing the strategy they have committed to meet the ambitious goal of 70% separately collected waste (idem). Others are drastically lacking behind. The city of Zagreb for instance (good for 21% of Croatia's waste and thus indispensable for reaching the national goals) is still highly dependent on landfills. Based on the numbers of 2017 it is unlikely Croatia is going to meet its targets by 2021 ([Concept of Sustainable Waste Management in the City of Zagreb](#) P 248). Furthermore, illegal landfilling is a big problem ([EC environment country report 2017](#) p9).

Circular Economy/waste and industry in Croatia

As regards business and industry activities, the biggest producers of waste are the service sector and the construction sector, each with a portion of 17%. After that comes the processing industry with a portion of 12% and waste collection, treatment, disposal and recovery activities with a portion of 11%. The remaining business activities comprise 12% ([Waste management plan Croatia, 1.1.1](#) data from 2017). The regulations and policy framework applying in these sectors are different than for waste management in the previous section. This, due to the fact that the transition period has fully passed and Croatia has adopted its policy to the Acquis (Internal document, transition periods CRO-EU accession).

Even though Croatia committed to these regulations there are still examples where the transition to circular waste processing or general disposal of waste along the lines of EU policy has not been as smooth as some might have hoped. The situation in the 'Crno brdo' industrial waste deposit, for instance, has led to a highly critical report from the EC in March 2018 as a follow-up to an infringement procedure started in 2015. The EC wrote; 'Croatia committed to addressing this situation on several occasions, there has been no progress on the ground. For almost four years, the industrial waste deposited at "Crno brdo" illegal landfill has not been cleared and properly managed, threatening to contaminate groundwater and air'. The EC has referred Croatia to the Court of Justice of the EU in this case ([EC press release database](#)).

Reaction of EC towards Circular Economy in Croatia

The EC has made significant funding available for Croatia's transition to a Circular Economy. These allocations are mostly used for investments in the waste management and treatment infrastructure. Investments are envisaged for the construction of waste management centres (WMCs), remediation of the locations highly polluted by waste ("hot spot"), remediation of the

municipal waste landfills, and projects in the field of waste prevention and recycling. The expected impact of the investments in environmental sectors as laid down in the where the achievement of targets such as;

- 10 new waste management centres established and fully operational (2023);
- Share of municipal waste deposited onto or into land reduced from 83% (2012) to 35% (2023);
- Additional waste recycling capacity of 30.000 tonnes per year;
- Additional 1 million inhabitants served by improved water supply and improved wastewater treatment (2023);
- 40% of the Natura 2000 management framework in place Natura 2000 management framework in place as a basis for conservation actions according to the obligations in the acquis (2023) ([EC environment country report 2017](#) p21).

The EC claimed in their environmental country report of 2017 that 'While a progress has been made in certain areas, the Action Plan on waste is seriously lagging behind' ([EC environment country report 2017](#) p21). Recommendations made by the EC to better the situation include the strengthen institutional capacity, clearer allocation of tasks, creation of more (financial/tax) incentives to manage waste correctly, and the creation of more enforcement capacity.

Initiatives, the private sector and public-private partnerships

Although the concept of Circular Economy has received plenty of attention in Croatia's academic community ([M Matešić](#), [B Ribić et al](#), [A Erceg & B Erceg](#), etc), and policy makers have implemented some circular initiatives, a platform which connects private and public actors comparable to the Dutch '[Netherlands Circular Hotspot](#)' is still lacking. There are (European) programs, initiatives and platforms for circular efforts in which Croatian initiatives participate. An example is the [Circular Industry Platform](#), a best practice platform on which circular initiatives (including three Croatian initiatives) share their experiences, but nothing purely focussed on the Croatian context.

Conclusion and personal comments

Croatia, like all other EU MS's, has to make work of the transition to a circular economy. Croatia is strongly lagging behind other MS's and still has a long way to go. Being that it is a new MS Croatia is still in a transition period but this will end on the 1st of January 2021. If Croatia wants to have its house in order by this time, exceptional efforts are needed. Some efforts in the policy framework have been taken but large public campaigns, private-public cooperation or other programs are missing. Given the low resource productivity and low recycling rates in Croatia, promoting a circular economy and improving resource efficiency could stimulate investment. Other countries like the Netherlands could set an example on how Circular has become a 'hot topic' in their contexts. Maybe this could raise the level of ambition and get Croatia closer to fully meeting all requirements in this field.



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