



The case for an integrated Waste Prevention Framework

Can the European Union support waste prevention without a proper legislation?

Policy Briefing

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Executive summary

The primary goal of a circular economy is to reduce the amount of waste generated through sustainable resource management. However, in the European Union, waste generation has been stagnating for the past 10 years, in spite of the EU's ambition on Circular Economy.

Although waste prevention is at the top of the waste hierarchy adopted in the revised *Waste Framework Directive*, EU waste legislations do not contain stringent provisions incentivising member states to reduce their waste. In fact, most discussions around the circular economy in the European Union are driven by the binding targets adopted on recycling and landfilling.

However, forcing countries to solely act to increase recycling while limiting one type of disposal does not incentivise waste reduction. Additionally, by being set in percentage instead of quantity, the current legislation sends a wrong signal as it does not reward waste generation decreases.

For this reason, Zero Waste Europe recommends to complement the European legislation with the following measures:

- Set an overall 20% waste prevention target on municipal solid waste (MSW) to be achieved by 2030 by all Member States, and of 30% by 2035;
- Set waste prevention targets for individual product groups;
- Adopt a residual (non recycled) waste target of 120 kilograms per capita by 2030 and of 100 kilograms per capita by 2035.

Additionally, such targets shouldn't be simply added in the *Waste Framework Directive* but instead they should be embedded in a "waste prevention framework" starting within the *Sustainable Product Policy Framework*.

Waste Prevention Framework	
Sustainable production	Overall waste prevention targets for MSW
	Product-specific waste prevention targets
Sustainable waste management	Maximum residual waste targets
	Preparation for reuse & recycling targets

Table 1: Waste Prevention Framework

Introduction

Between 1961 and 2019, the European Union's overshoot day has moved forward from the 13th of October to the 10th of May¹. It means that by the 10th of May 2019, the population within the European Union has consumed all the resources to stay within sustainable planetary boundaries². It also signifies that almost three planets would be needed to sustain the EU's current production and consumption patterns³. The EU's overshoot day provides a clear visualisation that such patterns are not sustainable for our future as they greatly contribute to the ever-increasing pressure from human activities on natural ecosystems⁴, threatening the planet and its inhabitants. Moreover, these trends contradict the European Union's ambition to be an environmental leader in the world.

Through the European Green Deal⁵, the European Union aims at slowing and reversing those unsustainable trends. Among others, the circular economy is a key aspect to achieve such a transition. The newly published *Circular Economy Action Plan*⁶ is supposed to act as one component of a 'green' transition. Yet, the European circular economy, until now, has been too focused on joining the two sides of the incomplete circle and too little on reducing the size of the circle. This gap has been identified many times by the civil society⁷ which demands concrete and ambitious actions - such as a resource use reduction target - to completely revamp our extraction, production and consumption patterns, in order to take meaningful steps towards a circular economy in Europe.

"To achieve a more sustainable economy, it is insufficient to only increase recycling and focus on (partial) improvements in the degree of circularity, but it is essential to also achieve absolute reductions in resource extraction and consumption, that is, to downsize the socioeconomic metabolism."⁸

¹ WWF, Global Footprint Network. ['EU OVERSHOOT DAY - Living beyond Nature's Limit'](#), 2019.

² Global Footprint Network. ['Open Data Platform'](#).

³ WWF, Global Footprint Network. ['EU OVERSHOOT DAY - Living beyond Nature's Limit'](#), 2019.

⁴ McNeill, J. R., and Peter Engelke. ['The Great Acceleration: An Environmental History of the Anthropocene since 1945'](#). Harvard University Press, 2014.

⁵ European Commission - ['Communication on The European Green Deal'](#).

⁶ ['A new Circular Economy Action Plan For a cleaner and more competitive Europe COM/2020/98 final. Pub. L. No. COM\(2020\) 98 final \(2020\)'](#).

⁷ EEB - The European Environmental Bureau, Friends of The Earth Europe. ['A Circular Economy within Ecological Limits'](#).

⁸ Mayer, Andreas, Willi Haas, Dominik Wiedenhofer, Fridolin Krausmann, Philip Nuss, and Gian Andrea Blengini. ['Measuring Progress towards a Circular Economy: A Monitoring Framework for Economy-Wide Material Loop Closing in the EU28'](#). Journal of Industrial Ecology 23, no. 1 (2019): 62-76.

Effective waste prevention has to go beyond waste management

To achieve the transition towards a sustainable Europe, strong waste prevention tools and measures need to be adopted and implemented. Waste prevention has been identified as a key priority by the Executive Vice-President⁹ of the European Commission Frans Timmermans in charge of the European Green Deal, and the Environment Commissioner, Mr. Sinkevičius, who stated that his objective “will be to achieve a genuine paradigm shift during his mandate: moving from recycling to preventing and minimising waste in the first place”¹⁰. It is now the time to translate those statements into action. If it truly wants to provide the necessary framework to remain within planetary boundaries, the European Union needs to act now, by designing a comprehensive and coherent set of legislation on waste prevention.

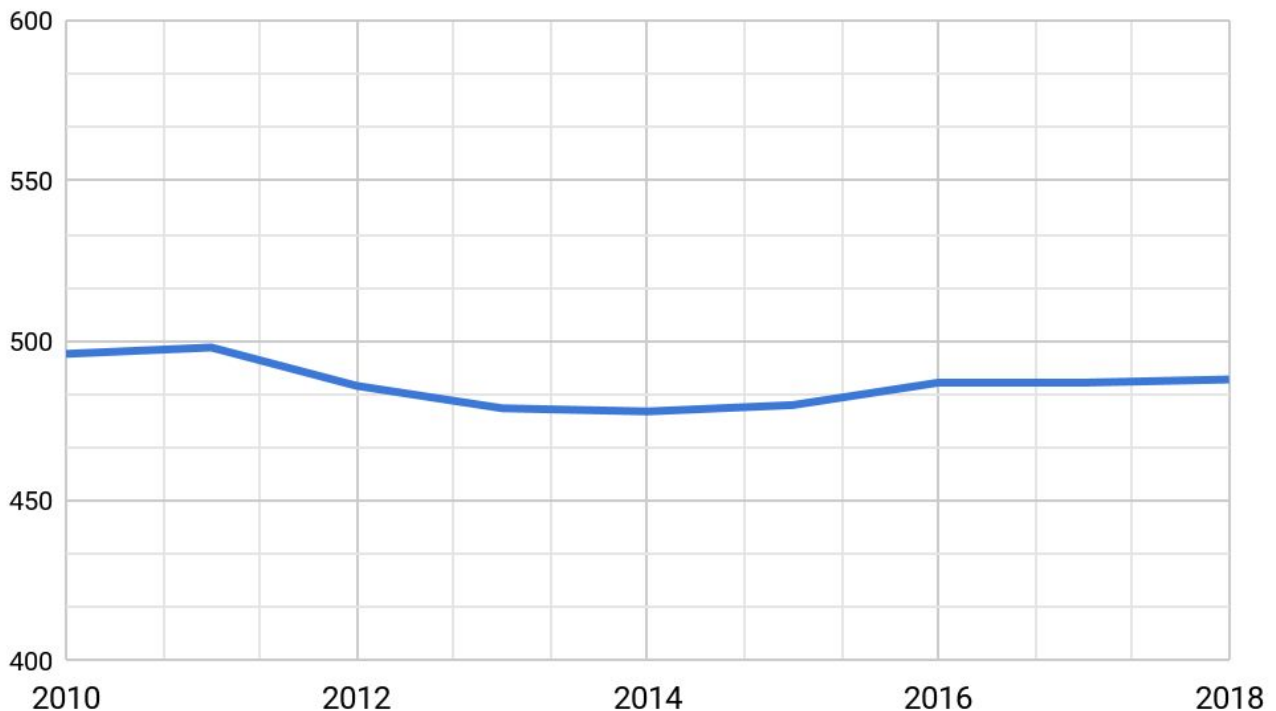


Figure 1: EU Municipal solid waste generation, in kilograms per capita¹¹

Over the past 10 years, the average municipal solid waste generation within the EU has been stagnating. Such a trend is representative of the ineffectiveness of the waste prevention programmes implemented across the European Union.¹²

Although the recently updated Waste Framework Directive contains a clear waste hierarchy putting prevention as the number 1 priority¹³ and obliging Member States to adopt waste prevention programmes¹⁴, these provisions remain insufficient and do not send a clear enough signal for Member States to concretely act.

⁹ [Timmermans: European Green Deal to Include Tougher Action on Plastics](#).

¹⁰ Sinkevičius, Virginijus. 'ANSWERS TO THE EUROPEAN PARLIAMENT QUESTIONNAIRE TO THE COMMISSIONER-DESIGNATE', n.d., 13.

¹¹ [File:Municipal Waste Generated in Selected Years, 1995-2018 \(Kg per Capita\).Png - Statistics Explained](#).

¹² [Legislation - Waste Prevention - Environment - European Commission](#).

¹³ [Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives \(Text with EEA relevance\)](#), Pub. L. No. 32008L0098, OJ L 312 (2008). Art.4 and Art.9.

¹⁴ *Ibid.* Art.29.



Figure 2: The waste hierarchy according to Directive (EC) 2008/98¹⁵

Despite leading to a few interesting national policies,¹⁶¹⁷ waste prevention in the European Union's waste laws have so far failed to deliver the concrete and needed results to redefine our production and consumption patterns to remain within planetary boundaries. This is due to EU waste prevention policies being too weak, without legally binding targets and policies addressing specific sectors only.

¹⁵ European Commission - [Waste prevention and management](#).

¹⁶ European Environment Agency. [Waste Prevention in Europe: Policies, Status and Trends in 2017](#). Publication.

¹⁷ European Environment Agency. [Preventing Plastic Waste in Europe](#). Publication..

The need for an embedded waste prevention framework



Figure 3: Waste prevention framework

In order to be fully effective, any upcoming measures to be adopted on waste prevention should:

- Be part of a holistic framework linking together production, consumption and waste management
- Contain precise and ambitious binding measures all along the value chain
- Be about qualitative prevention phasing-out hazardous contents in products and materials

Until now, what has been driving most of the European Union's discussions around circular economy remains the scaling-up of recycling and the progressive phase-out of landfilling. This is embodied by:

- The overall 65% recycling target to be achieved by 2035¹⁸
- The packaging recycling targets¹⁹
- The 10% landfilling target²⁰

¹⁸ [Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives](#) (Text with EEA relevance), Pub. L. No. 32008L0098, OJ L 312 (2008).

¹⁹ [Directive \(EU\) 2018/852 of the European Parliament and of the Council of 30 May 2018 amending Directive 94/62/EC on packaging and packaging waste](#) (Text with EEA relevance), Pub. L. No. 32018L0852, OJ L 150 (2018).

²⁰ [Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste](#), Pub. L. No. 31999L0031, OJ L 182 (1999).

In spite of those goals being key in achieving a circular economy, one cannot help noticing that overall waste prevention is completely absent from the legislative debate and thus, is not one of the main drivers regarding circular economy in Europe.

Furthermore, the current formulation of existing legislation leaves no room for waste prevention, as they do not specifically reward or target any effort Member States could make to reduce their overall waste generation.

In order to translate the recent Commission's ambition into a concrete and ambitious roadmap and as a complement to the NGO's 10 priorities²¹, Zero Waste Europe recommends the adoption of the following measures:

1. Set an overall 20% waste prevention target to be achieved by 2030 by all Member States

The overarching principle of a circular economy is to reduce the size of the circle to remain within planetary boundaries. Yet, if this principle seems to be agreed upon by most, it is not concretely translated into a tangible and regulatory call to action within the European legislation. An overarching prevention target on waste should therefore be established to provide a new horizon for European waste policies. This is why we ask for the following targets to be adopted within the mandate given by the *European Green Deal* and the new *Circular Economy Action Plan* to adopt prevention measures by 2022:

- **An overall 20% binding waste prevention target to be achieved by 2030 by all Member States**
- **An overall 30% binding waste prevention target to be achieved by 2035 by all Members States**

Additionally, the overall targets should be adapted in a fair way to countries, depending on the overall quantity of waste they are producing.

For instance in 2017:

- The EU28 average was 487 kgs/year/capita
- 7 EU countries produced over 550kgs/year/capita²²
- 13 EU countries produced less than 450kgs/year/capita²³
- 8 EU countries produced between 450 kgs and 550kgs/year/capita²⁴

The efforts to achieve the overall targets should be equally distributed with higher objectives for countries with higher waste generation and lower objectives for countries with already low levels of waste generation.

If such targets might appear as ambitious in the current context, they are much needed to pave the way to ambitious prevention measures. Not only would they act as a tool to accelerate progress for similar EU policies, but they are in

²¹ [10 Priorities to transform the European waste policy](#)

²² EUROSTAT

²³ Ibid

²⁴ Ibid

perfect alignment with both the ambitions and the measures laid out in the new *Circular Economy Action Plan*, such as the sustainable product policy framework.

Additionally it must be noted that some Member States (France²⁵, Croatia²⁶) and local and regional authorities (Catalonia²⁷, Balearic Islands²⁸, Ljubljana²⁹...) have already adopted such targets. Therefore it is important, to harmonise practices, that the whole of the EU adopts these targets.

2. Set waste prevention targets for individual product groups

If a target on aggregated waste streams acts as a major prevention policy driver, this should be complemented by specific material streams, as such an overarching target lacks the strategic analyses on waste prevention and generation that greatly differ from one stream to another. Product-specific targets then allow to take into consideration specific aspects of those products, such as the existence of a second-hand market, the specific need for ecodesign or the lack of a regulatory framework.

In 2019, Zero Waste Europe's study conducted by the Wuppertal Institute on waste prevention identified nine product groups to be prioritised within waste prevention policies³⁰:

- Food and beverages
- Large household appliances
- Small household appliances
- IT and telecommunications equipment
- Toys, leisure and sports equipment
- Electrical and electronic tools
- Textiles
- Motor vehicles
- Furniture and furnishing

Those groups have been prioritised according to two main dimensions:

1. The ecological, social and economic relevance of waste prevention³¹;
2. The potential for improving waste prevention in particular product groups³².

²⁵ [Programme National Prevention Dechets 2014-2020](#).

²⁶ Government of the Republic of Croatia. [Waste management plan of the republic of croatia for the period 2017-2022](#), January 2017.

²⁷ [Cases et al. - Han Participat En l'elaboració.Pdf](#).

²⁸ Institut d'Estudis Autònoms - [Llei 8/2019, de 19 de febrer, de residus i sòls contaminats de les Illes Balears](#).

²⁹ [Zero Waste Načrt Ljubljana](#).

³⁰ Wiltz, Henning & Al. [Research Study on Holistic Indicators for Waste Prevention](#).

³¹ Containing factors such as the resource consumption or the social impact of the production process.

³² Containing factors such as the gap between conceivable and current ecodesign or the potential to increase the repair and reuse market.

This means they show the highest prevention potential not only in terms of positive environmental impact but also in terms of how feasible it is for prevention to be achieved if properly regulated.

Therefore, for each of those product groups, the EU should establish waste prevention targets complementing the overall waste generation target, as the packaging recycling targets are complementing the general preparation for reuse and recycling targets.

	2030	2035
Minimum MSW prevention targets	20%	30%
Ex: Food waste	50%	-
Ex: Product group 2	X%	Y%
...	X%	Y%

Table 2: Potential overall waste prevention targets

	2025	2030	2035
Minimum preparation for reuse and recycling of MSW	55%	60%	65%
Maximum landfilling of MSW	-	-	10%
Minimum recycling of packaging waste	65%	70%	-
Plastic	50%	55%	-
Wood	25%	30%	-
Ferrous metals	70%	80%	-
Aluminium	50%	60%	-
Glass	70%	75%	-
Paper and cardboard	75%	85%	-

Table 3: Overall waste management targets

3. Adopt a residual (non recycled) waste target of 120 kilograms per capita by 2030 and of 100 kilograms per capita by 2035

By solely being percentage and treatment based, the current targets - the landfilling and recycling targets - set to reduce the overall quantity of residual waste have three main flaws:

- They do not take into account the overall quantity of generated waste and therefore do not incentivise the adoption of waste prevention measures³³;
- They may encourage decision-makers to invest in waste incineration creating a lock-in effect in opposition with the principles of the circular economy³⁴;
- It sends the wrong signals by solely emphasising the negative impacts of one type of residual waste treatment - landfilling - while circular economy aims at progressively phasing-out residual waste in itself and stopping all kinds of disposal.

Today, countries considered to be the best-performing in terms of waste management are often the top-ranking ones in terms of waste generation, due to industrialised and advanced recycling and incineration systems. Not only this gives the

³³ Zero Waste Europe. [‘The Landfill Target May Work against the Circular Economy. Should We Minimise Percentages or Tonnes?’](#).

³⁴ Zero Waste Europe. [‘The Landfill Target May Work against the Circular Economy. Should We Minimise Percentages or Tonnes?’](#).

wrong signal regarding the policy priority for Member States, but it is also unfair to countries with low waste generation and less advanced waste management capacities, as they are perceived as laggards. ***In 2017, for instance, Germany produced 208 kilograms of waste per capita going to disposal (D1-D7, D10 & D12) and recovery (R1) while Romania only generated 204 kilograms overall.*** Yet, by only setting targets in percentage on recycling and landfilling, Germany ranks first while Romania is perceived as a laggard country in spite of producing less overall waste than the German amount going to disposal and recovery.

Setting quantity-based targets on residual waste as a whole would therefore allow to reduce residual waste by improved waste management and overall waste reduction. We suggest the following targets to be adopted and complement the existing legislation:

- **A maximal target of 120 kilograms per capita per year to be achieved by 2030**
- **A maximal target of 100 kilograms per capita per year to be achieved by 2035**

Albeit such targets might seem ambitious to achieve, many municipalities across have already reached them³⁵, some even producing less than 30kgs/person/year of residual waste.

Additionally, they would match the European Commission's ambition to "halve the amount of residual (non-recycled) municipal waste by 2030"³⁶. According the most recent European waste statistics³⁷, halving the current 259 kilograms³⁸ of residual waste by 2030 means lowering this number to 129,5kgs/capita/year.

³⁵ [Zero waste cities](#)

³⁶ A new Circular Economy Action Plan For a cleaner and more competitive Europe COM/2020/98 final, Pub. L. No. COM(2020) 98 final (2020). P.16.

³⁷ [Monitoring Framework - Eurostat](#).

³⁸ For 2018: 492kgs (of MSW generated) - 233kgs (47,4% of recycled MSW) = 259kgs of residual waste

A waste prevention framework integrated within the Circular Economy Action Plan's provisions on products

Truly ambitious objectives on waste prevention cannot be achieved if they are not embedded within a comprehensive strategy starting from production. Yet, the mention of prevention being the first priority appears most prominently in the Waste Framework Directive³⁹, a directive regulating what happens once the waste is produced e.g waste management. Waste prevention starts at the production phase and stops when a product becomes waste. In that sense, the following should be established:

- **The Sustainable Product Policy Framework's legislative proposal⁴⁰ should explicitly aim at reducing waste and include the overall waste prevention target mentioned above**
- **The Key Product Value Chain⁴¹ policy should include the product-specific prevention targets mentioned above**

Such provisions would only align themselves with the European Union's ambition to put prevention first and progress towards a true circular economy. Additionally, this would only be a continuation of the new *Circular Economy Action Plan's* essence in which the food waste reduction target is mentioned within the Food, Water and Nutrients product-group paragraph⁴².

Conclusions

Remaining within planetary boundaries means reducing the material footprint of Europeans. As it is now, the EU waste legislation, that is only putting emphasis on waste management, merely achieves to slow-down the increase of our material footprint. In that regard, **there is an urgent need to complement and update our approach to waste in an integrated way.**

The current waste legislation encourages the development of a circular economy from a downstream perspective, e.g. by avoiding part of the negative impact due to landfilling through more recycling. This is not enough and needs to be strongly redirected towards an ambitious upstream approach. A perspective that does not only avoid negative outcomes but strongly encourages positive solutions through waste prevention. And to achieve so, we need an integrated and ambitious framework on waste prevention.

³⁹ [Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives](#) (Text with EEA relevance), Pub. L. No. 32008L0098, OJ L 312 (2008). Art.4 and Art.9.

⁴⁰ A new Circular Economy Action Plan For a cleaner and more competitive Europe COM/2020/98 final, Pub. L. No. COM(2020) 98 final (2020). p.6.

⁴¹ Ibid. p.10.

⁴² Ibid. p.14-15.

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Zero Waste Europe is the European network of communities, local leaders, businesses, experts, and change agents working towards the same vision: phasing out waste from our society. We empower communities to redesign their relationship with resources, to adopt smarter lifestyles and sustainable consumption patterns, and to think circular.



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