

From strategy to practice: Tough issues ahead for plastics

Stefan Sipka
Policy Analyst

In January 2018, the European Commission (EC) adopted a European Strategy for Plastics in a Circular Economy to address plastic pollution systematically. As a result, the EC is introducing binding (legislative) and voluntary measures. It is also conducting assessments as a basis for further action. To successfully respond to the plastics challenge, the European Union (EU) will need to encourage a reduction in plastic use, ensure availability and deployment of adequate alternatives to plastics, and measures that will incentivise eco-design of plastic products and recycling, including uptake of recycled plastics into new products. Finally, since the international shipments of plastic waste have become more difficult, the EU needs to respond to this new developments to safeguard its ambitions on minimising plastic pollution.

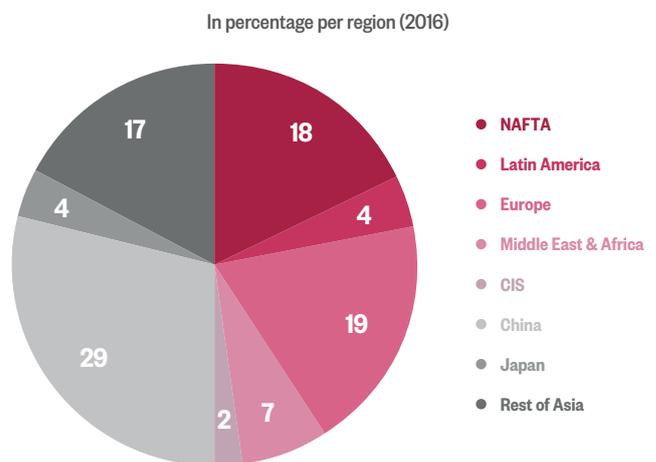
30% of plastic waste),³ the EU is in a good position to show the way also for others in tackling the adverse impacts of plastics.

Our modern economy relies on plastics. Their overwhelming usage in our everyday lives results from both their useful applications (such as packaging, insulation and food safety) and their practicality (weight, relatively low cost etc.). Nonetheless, their massive usage comes at a price: plastic products are major pollutants.

BACKGROUND – THE PROBLEM WITH PLASTICS AND THE EU’S RESPONSE

Our modern economy relies on plastics. Their overwhelming usage in our everyday lives results from both their useful applications (such as packaging, insulation and food safety) and their practicality (weight, relatively low cost etc.). Nonetheless, their massive usage comes at a price: plastic products are major pollutants. Their production and incineration cause approximately 400 million CO₂ emissions a year.¹ Downstream, 5-13 million tonnes of plastics per year end up in the oceans, enters the food chain and, hence, can reach our very own plates.

As shown in the figure, the EU accounts for one fifth (60 million tonnes) of global plastics production (335 million tonnes). Since its contribution to marine pollution is relatively small² and recycling rates have increased by 80% since 2006 (the EU recycles roughly



The share of plastics production per region⁴

That said, much work remains to be done internally. The EU's plastic litter still causes significant pollution in specific regions, for example, the Mediterranean,⁵ the North Sea and parts of the Arctic.⁶ Likewise, 80-220 thousand tonnes of 'microplastics'⁷ are annually being released into the environment, causing harm to marine life and potentially to human health.⁸ On top of that, around one third of recycled plastic is exported to and recycled in East Asia, which has environmental impacts on the region due to generally lower recycling standards and enforcement in this region.

The EU has a long history of tackling plastic pollution, albeit in a rather sectorial manner.⁹ Responding to public concerns and international commitments,¹⁰ the EU has started to address the plastic challenge with a more comprehensive approach. In 2015, the European Commission (EC) signalled an impetus for change with its Circular Economy package, which proposes a holistic approach to address the unsustainable use of resources (including plastics). In 2018, the Packaging Directive was amended to include higher recycling rates for plastics (55% by 2030).

The EU has a long history of tackling plastic pollution, albeit in a rather sectorial manner. Responding to public concerns and international commitments, the EU has started to address the plastic challenge with a more comprehensive approach.

In its 2018 European Strategy for Plastics in a Circular Economy, the EC suggested additional measures.¹¹ It put forward a broad set of mandatory and voluntary policy instruments for the EU and the member states (MS) level. It also presented a set of fiscal measures to incentivise plastics recycling. The strategy also addresses specific issues, such as single-use plastics and microplastics.

STATE OF PLAY – RECENT DEVELOPMENTS

Since the adoption of the plastics strategy, concrete policy measures are being developed, solidifying the EU's status as a leading world player when it comes to the circular economy.

Stricter rules on single-use plastics (SUP)

The EC proposal for a SUP Directive, from May 2018, aims to reduce consumption, impose market restrictions (bans of certain products such as plates and cutlery), set new product and market requirements, extend the responsibility of producers, introduce separate collection and raise awareness.¹² In October 2018, the

European Parliament (EP) backed the EC's proposal and suggested making it even stricter.¹³ The debate, triologue, with the Council, the Parliament and the EC on the proposal is currently under way.¹⁴

To date, some contentions have emerged. First, not all eco-friendly alternatives to SUP are yet deployable, or their use raises questions as is the case with bioplastics.¹⁵ Second, the impact assessment of the proposed SUP Directive¹⁶ and the accompanying Life Cycle Assessment¹⁷ was limited in scope.¹⁸ The EP also pointed out that business impacts were not sufficiently considered.¹⁹ Therefore, there are still several concerns to be duly considered before the adoption of the new Directive and during the subsequent monitoring of its implementation.

Identifying the next steps on microplastics

The EC is also envisaging a set of measures to tackle the use of microplastics. These include regulatory restrictions on the intentional placement of microplastics in products, new requirements for eco-design and labelling, and the capture and removal of these particles from urban wastewater systems. At the EC's request, the European Chemicals Agency is currently evaluating whether and which restrictions may be required. Results are expected at the start of 2019.²⁰ If the results of the evaluation call for further regulatory measures, additional economic assessments will be required to ensure that new standards do not cause unnecessary detriments to industry and consumers.

New fiscal incentives

The strategy also recommends that MSs introduce new tax incentives to boost plastics recycling. On top of that, the EC has proposed a levy on non-recycled plastics EU-wide,²¹ while the Budget Commissioner has indicated that this measure could help solve the revenue difficulties related to Brexit.²² The proposal and its justification sparked much public controversy²³ and criticisms on behalf of the industry.²⁴ Arguably, the primary purpose of the contribution to the budget of the member states or the EU should not merely be to raise taxes but to create incentives to address plastic pollution. Finally, an EU-wide scheme must take into account MS initiatives, like France's plans to introduce a national tax on plastics.

Implications of China's ban on plastic waste imports

In 2018, the EU and its members were confronted with new external pressures following Beijing's ban on waste imports (including plastics) into China, which started in January. Until then, China was the world's largest importer of plastic waste. Its recent policy reversal is expected to lead to significant accumulation of untreated plastic waste²⁵ and higher costs of recycling in EU compared to China.

Due to the constraints on the international shipments of plastic waste, a diverse coalition of stakeholders

has called for the introduction of mandatory recycled content in plastic products.²⁶ Boosting the demand for recycled plastics and thus increasing plastic recycling in Europe would help to reduce its dependence on external processors of plastic waste and enable EU to deal with its waste. The EP's suggestion to the SUP Directive proposal to have a mandatory 35% share of recycled material in SUP beverage bottles by 2025 is a step in that direction.

Voluntary pledges

The EC has also introduced a voluntary pledge campaign calling for the industry to commit to ensuring that "by 2025 ten million tonnes of recycled plastics find their way into new products on the EU market". In its preliminary evaluation of the campaign, the EC indicated that the pledges so far fulfilled around 50% of the aforementioned target. A more detailed evaluation, to be conducted in the first quarter of 2019, will lead to conclusions on the state of submitted pledges.²⁷

Voluntary pledges will likely not be enough to ensure the uptake of recycled plastics on a needed scale. Other regulatory interventions will be required. Nonetheless, this initiative has been valuable in testing the industry's resolve to increase the share of recycled plastics in their products.

PROSPECTS – NEXT REGULATORY STEPS

The plastics strategy sets the stage for developing a more comprehensive European approach to tackle the adverse environmental, economic, and social impacts of plastics. To address the plastics challenge, the EU should consider the following policy and legislative measures:

ALTERNATIVES TO PLASTICS

It is vital to ensure the availability and deployment of products with better environmental performance compared to single-use plastics (SUP) while minimising the impact on businesses.

Many alternative materials and products already exist. Paper, cardboard, aluminium, glass, but also bioplastics and organic materials could help to reduce the usage of plastics further and prevent plastic waste. However, the push for alternatives needs to be financially feasible, practical and sustainable (e.g. bioplastics are considered fully biodegradable only in controlled environments and not in real life situations).

There is a need for dedicated infrastructure for the collection and treatment of both plastic, waste and 'alternative' materials (paper and cardboard with plastic coating). Further efforts are required on awareness raising to promote sustainable consumer behaviour on plastics. Final discussion with the Council needs to consider the limitations of the SUP Directive proposal while its implementation must be coupled with additional funding in research & development of alternatives to plastics.

UPTAKE OF RECYCLED PLASTICS

The EC's evaluation of the voluntary pledges should lead to frank discussions amid EU policymakers on the needed (regulatory) action. They could set mandatory targets to boost the uptake of recycled plastics into new products. Setting the precise targets would require further analysis while taking into account the results of the pledging campaign and existing plastic recycling targets under the Packaging Waste Directive and proposed SUP Directive. More extensive uptake of recycled plastics would also necessitate the establishment of a minimum set of clear and binding common standards for recycled plastics to increase its quality.

EXTENDED PRODUCER RESPONSIBILITY

The SUP Directive proposal includes a provision that producers shall: "cover the costs of waste management and clean up, as well as awareness-raising measures". Such a requirement would create incentives for producers to integrate environmental considerations into product design, for example by increasing reusability or recyclability of products. The challenge will be to deliver this outcome while avoiding putting an unnecessary administrative and financial burden on producers or shifting costs on consumers.

It is crucial that the EU and national authorities facilitate the dialogue between the industry and sub-national authorities, traditionally in charge of waste management. Moreover, stronger incentives for eco-design usually exist if the producer is responsible for waste collection and treatment or the financing of its waste. The member states should, therefore, aim to transpose the directive so that individual producers live up to their new responsibilities.

INTERNATIONAL DIMENSION

The EU needs to assess the long-term effects of China's ban on waste imports and consider policies to adapt to this new situation. Introducing the mandatory uptake of recycled materials may increase the production costs and prices for final products. Nonetheless, in the long-term, it could boost innovation and the recycling industry. The EU should also consider stirring the international debate closer to its ambitions on plastics. The EU could push at the UN level for global binding targets and standards for waste collection and recycling, coupled with well-designed financial mechanisms.

Less than a year since the adoption of the plastics strategy, further policy developments are under way. Nonetheless, there is still a long road ahead. The concrete measures, envisaged by the strategy, need to be adopted and followed up by the EU, MS and industry. The EC will have to monitor this implementation closely to assess the impacts and identify opportunities for policy improvements. Member states, sub-national authorities, industry, and NGOs ought to be included in this process. The

growing greenhouse gas emissions and the accumulation of litter should drive decision makers, including the next Commission, to go out of their way to successfully tackle plastic pollution.

The European Policy Centre acknowledges the kind support of the Cariplo Foundation. The support the European Policy Centre receives for its ongoing operations, or specifically for its publications, does not constitute endorsement of their contents, which reflect the views of the authors only. Supporters and partners cannot be held responsible for any use that may be made of the information contained therein.

- 1 With significant increases to be expected if the demand for plastics continues to grow. World Economic Forum, Ellen MacArthur Foundation, and McKinsey & Company (2016), "The New Plastics Economy; Rethinking the future of plastics", p. 29.
- 2 150–500 thousand tonnes or around 3% of the global plastics is being discharged into the oceans from the EU. Sherrington C. *et al.* (2016), "Study to support the development of measures to combat a range of marine litter sources", Brussels: European Commission.
- 3 PlasticsEurope (2017), "Plastics – the Facts; An analysis of European plastics production, demand and waste data", Brussels: PlasticsEurope, pp. 30–31.
- 4 *Ibid.*, pp. 16–17.
- 5 World Wildlife Fund for Nature (2018), "[Out of the Plastics Trap; Saving the Mediterranean from Plastics Pollution](#)", Rome: WWF.
- 6 Brink, P. Schweitzer, J.-P. Watkins, E. Howe, M. (2016), "[Plastics Marine Litter and the Circular Economy](#)", Brussels: IEEP, p. 6.
- 7 Microplastics are tiny plastic particles (at <5 mm) that can be ingested by marine life and subsequently humans.
- 8 *Ibid.*, p. 254. Also, 68,500 to 275,000 tonnes of microplastics are discharged per year.
- 9 Namely via the [Packaging Waste Directive](#), adopted in 1994.
- 10 The [2030 Sustainable Development Goals](#) include a target to prevent and significantly reduce marine pollution of all kinds, including marine litter.
- 11 European Commission (2018), "[A European Strategy for Plastics in a Circular Economy](#)", Brussels: European Commission.
- 12 European Commission (2018), "[Proposal for a Directive of the European Parliament and the Council on the reduction of the impact of certain plastic products on the environment](#)", Brussels: European Commission.
- 13 [Amendments](#) adopted by the European Parliament on 24 October 2018.
- 14 Austrian Presidency of the Council of the European Union (2018), "[Programme of the Austrian Presidency of the Council of the European Union \(1 July – 31 December 2018\)](#)"; Vienna: Austrian Ministry of Foreign Affairs, p. 61.
- 15 Surfrider Foundation Europe, Friends of the Earth Europe, Zero Waste Europe, ECOS, European Environmental Bureau (2017), "Bioplastics in a Circular Economy: The need to focus on waste reduction and prevention to avoid false solutions", Joint position paper. Biarritz: Surfrider Foundation Europe.
- 16 European Commission (2018), Commission Staff Working Document, Impact Assessment, "[Reducing Marine litter: action on single-use plastics and fishing gear](#)", Brussels: European Commission.
- 17 European Commission (2018), "[Life cycle inventories of single-use plastic products and their alternatives](#)", in Paspaldzhiev, Ivan and Jon Stenning (eds), *Study to explore links between production, the environment and environmental policy*, Brussels: European Commission.
- 18 [Question for written answer P-004314/2018 to the Commission](#). Elisabetta Gardini (PPE) Subject: Life cycle analysis - single-use plastics. Brussels: European Parliament; PlasticsEurope & Plastics Converters and single-use plastic products (2018). Position paper. Brussels: PlasticsEurope.
- 19 European Parliament (2018). "[Marine litter: single-use plastics and fishing gear](#)", Briefing, Initial Appraisal of European Commission Impact Assessment, Brussels: European Parliament.
- 20 European Chemicals Agency (2018), "Note on Substance Identification and the Potential Scope of a restriction on uses of 'microplastics'", Helsinki: European Chemicals Agency.
- 21 European Commission, "[A Modern Budget for a Union that Protects, Empowers and Defends](#)"; the multiannual financial framework for 2021–2027, p. 27.
- 22 Morgan, Sam (2018), "[Plastic tax and ETC Tinkering Could Plug Brexit Hole, Suggests EU Budget Chief](#)", *Euractiv*, January 2018.
- 23 Sollety, Marion (2018), "[Plastic tax Proposal Faces Resistance](#)", *Politico*, January 2018.
- 24 PlasticsEurope (2018), "[A Resource Efficiency at Risk: a Plastic Tax could Jeopardize the Circular Economy Goals](#)", Press release, Brussels: PlasticsEurope.
- 25 Brooks, A., Wang S. and Jambeck R. J. (2018), "[The Chinese import ban and its impact on global plastic waste trade](#)", *Science Advances*, Volume 4, Issue 6, p. 2.
- 26 Reloop *et al.* (2018). "[Closing the Circular Economy Loop. A call for EU Action Plan on Recycled Content mandates for Plastics](#)", Brussels: Reloop.
- 27 European Commission (2018), "[EU Plastics Strategy: Commission welcomes voluntary pledges from industry to boost the market for recycled plastics and encourages further action](#)", Press release, November 2018, Brussels: European Commission.