

Combating microplastic pollution in the EU: Unintentional releases of plastic pellets

Impact assessment (SWD(2023) 332 final, SWD(2023) 333 final (summary)) accompanying a Commission proposal for a Regulation of the European Parliament and of the Council on preventing plastic pellet losses to reduce microplastic pollution (COM(2023) 645 final), 2023/373(COD)

This briefing provides an initial analysis of the strengths and weaknesses of the European Commission's [impact assessment](#) (IA) accompanying the above-mentioned [proposal](#), submitted on 16 October 2023 and referred to the European Parliament's Committee on Environment, Public Health and Food Safety (ENVI).

According to the IA, the [New Circular Economy Action Plan](#), adopted in 2020 as one of the main building blocks of the [European Green Deal](#), committed the Commission to tackling the presence of microplastics in the environment by restricting intentionally added microplastics in products and by addressing unintentional releases of microplastics. Further on, the action plan '[Towards Zero Pollution for Air, Water, and Soil](#)', adopted in 2021, proposed to reduce microplastics releases (both intentional and unintentional) in the environment by 30% by 2030 (IA, p. 6). The proposal focuses on one of three identified causes of microplastic pollution – **unintentionally released** microplastics – and on one of six identified sources – **plastic pellets**.¹ According to the IA, other causes of microplastic pollution (degradation of larger 'macroplastic' pieces and intentionally added microplastics) are not addressed in this proposal, as relevant legislation already exists or is in the making.

Among the sources of pollution (paints, tyres, pellets, textiles, geotextiles, detergent capsules), pellets rank third in terms of quantities unintentionally released in the EU, amounting to 7-10%. The IA argues that the focus on pellets is due to the 'conditions being in place' to apply the [precautionary principle](#) and for immediate regulatory action: for instance, there is no existing or forthcoming legislation tackling pellet losses, sufficient evidence exists documenting the problem, and pellet losses occur during handling and are therefore largely preventable in a cost-effective manner. Other sources were not pursued either because of uncertainties and data gaps or because they are included in other legislation, such as the [EURO 7](#) regulation, which tackles microplastics releases from tyres (IA, pp. 6-7). The initiative is expected to contribute to several of the **Sustainable Development Goals (SDGs)** (IA, p. 9 and Annex 3, IA Part 2/3, p. 116).

Problem definition

The IA defines the problem regarding *microplastics in general*, pointing to their ubiquitous, persistent and transboundary nature. It underlines that they are detrimental to the environment and potentially harmful to human health; furthermore, the mobility of microplastics is an aggravating factor. The IA draws attention to the fact that 'all global scenarios point to an increase' in microplastic releases to the environment in the future and to the warning issued by the Commission's [Group of Chief Scientific Advisors](#) that there is 'significant ground for concern and precautionary measures to



be taken'. Furthermore, the IA argues that there is widespread agreement by stakeholders about the hazardous nature of microplastic pollution and its negative impact on the environment (pp. 9-11).

Regarding **plastic pellets** *in particular*, the IA underlines that **current practices for their handling** lead to pellet losses causing adverse environmental and potential human health impacts. It explains that these losses can occur at every stage in the supply chain (production, processing, distribution, other logistic operations, waste management) and identifies **operators** involved at each stage. While producers and recyclers are mainly large companies, 89% of converters and 96% of logistics are estimated to be small and medium-sized enterprises (SMEs) (IA, pp. 12-14 and Summary, p. 3). The IA explains how pellet losses can occur (chronic ongoing pellet losses during routine operations due to, for instance, lack of awareness and improper training, and acute one-off incidents often occurring during transport or due to major equipment failures) and describes the pellet pathways.

As to the **scale** of the problem, the IA openly acknowledges that there is no harmonised methodology for measuring pellet losses; therefore, these losses are not routinely measured or indeed really measurable at any specific step (p. 16). It draws on figures mentioned by several studies openly acknowledging the uncertainties and explains that a range of loss rate has been used to calculate the losses occurring at four major steps – production, processing, recycling and logistics (p. 17). The IA estimates the amount of pellet losses in the EU in 2019 to be between 52 140 and 184 290 tonnes (0.08-0.28 % of total pellet volumes in the EU) and clarifies the methodology of these calculations in Annex 8 (IA Part 2/3, pp. 155-160). Further on, the IA explains in sufficient detail the **impacts of pellet losses** on the environment, on climate, on human health and on the economy (pp. 18-21 and Annex 7). It acknowledges that, while all other impacts are 'well documented and relatively well known, the impacts on human health are still poorly understood', but points to the need to apply the precautionary principle due to their potential harm to human health.

The IA identifies **market failures** and **regulatory failures** as **drivers** of the problem. It explains that prices do not reflect negative externalities and there is no incentive for economic operators to integrate the externalities caused by pellets released in the environment; also, economic operators do not have sufficient information to be fully aware of the pellets unintentionally lost during their operations. The IA considers regulatory failures – that existing EU legislation does not address pellets sufficiently – to be the most significant of the problem drivers (p. 22). Finally, it presents the assumptions as to how and whether the problem will persist and concludes that, in the absence of EU action, the problem will worsen, as demand and consumption of plastic products is expected to increase, while voluntary initiatives and regulatory initiatives at Member State level and other measures will not be sufficient (p. 23).

In line with the Better Regulation Guidelines ([BRG](#)) and Toolbox ([BRT](#)), the problem is clearly identified and its causes are well described. It draws on extensive scientific evidence and other sources, including stakeholders' opinions, and defines the scale of the problem, its drivers, affected stakeholders and how likely the problem is to persist, referring, *inter alia*, to global trends and future scenarios.

Subsidiarity/proportionality

The initiative is based on Article [192\(1\)](#) of the Treaty on the Functioning of the European Union (TFEU). The IA underlines the **transboundary nature** of the problem as the most aggravating factor and the reason to act, and points out that national action alone cannot address the problem of transboundary pellet pollution. It therefore argues that there is clear benefit in taking action at **EU level** to ensure 'a high level of environmental protection throughout the EU territory and a harmonised and well-functioning internal market across all Member States'. Furthermore, the IA argues that fragmented approaches would not bring efficiency gains due to being less effective in reducing transboundary pellet pollution and more costly overall (p. 24).

The IA also covers the **proportionality** principle and underlines that it is considered throughout the IA and in Annex 11. In line with the recommendations of the BRT, a [subsidiarity grid](#), further clarifying

subsidiarity and proportionality questions arising from the proposal, is attached to the IA. No reasoned opinions have been issued by the national parliaments [scrutinising](#) the proposal at the time of writing (subsidiarity deadline – 9 February 2024).

Objectives of the initiative

As a **general objective**, the initiative seeks to 'contribute to the reduction of microplastic-related pollution by preventing and reducing pellet losses to the environment that are due to current handling pellet practices at all stages of the supply chain within the EU, thus reducing the adverse environmental, economic and potential human health consequences of pellet pollution' (IA, pp. 24-25). This objective is split into three **specific objectives** (SOs):

1. to reduce and prevent pellet losses in an economically proportionate manner, consistent with the 2030 target of a 30 % reduction of all microplastic releases;
2. to improve information on pellet losses throughout the supply chain, notably the accuracy of loss estimates, and to raise awareness among those concerned; and
3. to ensure mitigation of impacts on SMEs involved in the pellet supply chain.

According to the BRT, the objectives should comply with the 'S.M.A.R.T.' criteria (specific, measurable, achievable, relevant and time-bound) (BRT [Tool#15](#), p. 110). The objectives are clearly identified and SOs 1-2 appear to duly address the problems identified. SO3, however, does not appear to be directly linked to any of the problems identified in the problem definition section. Although, in the above-mentioned section, the IA draws attention to mainly small and micro-enterprises involved in processing/converting and storing pellets, it does not explain how current pellet losses within a supply chain is a problem for them. SO3 therefore appears to prescribe certain negative impacts of the preferred policy option (PO), and the need for mitigation, before the POs are even described and the preferred option is chosen. Furthermore, the IA does not set **operational objectives** under the preferred option in terms of the deliverables of specific policy action as recommended by the BRT.

Range of options considered

The IA dedicates considerable space to describing the **dynamic baseline** scenario from which it assesses the POs (pp. 25-33). It explains that the baseline was developed using 2019 as the base year (due to the COVID pandemic in 2020 and positive growth trends observed again from 2021 onwards) and transparently lists other assumptions about data sources. It takes into account existing and forthcoming legislation, and national (see Table 3, p. 27), international and industry initiatives, and presents them in sufficient detail, explaining their [potential] contribution to reducing pellet losses across the whole supply chain. For instance, it explains how the '[REACH restriction](#)' – i.e. its requirement to report estimates of pellet losses of microplastics intentionally added to products – could help to increase information on pellet losses and allow the identification of uses with high releases, but would not directly reduce or prevent pellet losses. The IA concludes that all these initiatives are expected to contribute to a limited change in pellet loss reduction by 2030 and includes the quantified assumed reductions in the baseline (p. 32); it estimates, however, that, based on these assumptions, there still will be 42 050-170 266 tonnes of pellets lost each year by 2030.

Further on, the IA explains that it considers four policy options addressing general and specific objectives, based on a literature review and input from stakeholders (pp. 32-36):

1. **Mandatory standardised methodology to measure pellet losses.** The IA argues that this option would address the information failure problem and would be developed 'via the European Standards Organisation (CEN), which typically takes 3-4 years to complete'.
2. **Mandatory requirements to prevent and reduce pellet losses.** This concerns the proper handling of plastic pellets combined with mandatory certification. Mandatory requirements would be imposed on the whole supply chain, and companies would have to provide evidence

– for example, as regards the relevant internal procedures and defining responsibilities, training and awareness of staff or operational controls. External auditing and certification by independent bodies are also envisaged as a condition for operating. Three sub-options with lighter requirements for companies in the pellet supply chain were assessed:

- 2a) for micro-companies;
- 2b) for micro- and small companies;
- 2c) for micro-, small and medium-sized companies.

According to the IA, large operators (mainly producers) did not raise concerns about the economic burden of mandatory requirements, as they would be quick to implement with a relatively low cost for them (p. 34). The IA further explains that no reduction targets are set under this PO, but it is expected that the 'certification process will deliver results' and that, 'once the measure under PO1 is in place, the reduction targets could possibly be defined'.

3. **Improved packaging for pellet logistics.** This PO aims to ensure that all bags and containers used for pellet logistics are suited to prevent damage and tears.
4. **EU target to reduce pellet losses.** Aims to establish 'an EU emission reduction target for pellet losses in line with ... the overall microplastic releases reduction target of 30 % by 2030'.

The POs are presented and analysed in a balanced and sufficiently clear way. They do not, however, appear to present realistic alternatives, but are rather separate (albeit not completely independent) measures to be used in combination with each other. For instance, the IA argues that implementing PO1 is essential to monitor the implementation of PO2, would facilitate the comparison of packaging solutions under PO3 and would be necessary to set targets under PO4. PO1 therefore appears to be complementary to all the other options.

The IA explains in the ensuing description of **discarded options** that some of these measures are already part of the baseline (such as voluntary commitments by the industry or voluntary verification of best practices), or are considered insufficient to trigger meaningful change or as stand-alone measures (such as information/awareness raising, obligation to provide training) (pp. 35-36). Finally, the IA includes a diagram illustrating the **intervention logic** of the proposal and the links between problems, drivers, objectives and policy options (p. 37).

Assessment of impacts

The IA explains that each policy option is assessed for its **environmental, economic and social impacts**, as well as its **costs** and **administrative burden** (p. 37). It draws particular attention to the reduction of pellet losses and explains the **uncertainties** related to incomplete data in the baseline. The IA underlines several times that the principal uncertainty comes from the pellet loss rates. Monetising benefits to the environment is also considered difficult due to lack of data. The IA lists the different types of impacts under each category – for instance, the economic impacts relate to both direct and indirect costs and benefits resulting from measures taken, while social impacts are mainly considered in terms of creation/loss of jobs.

According to the IA, the mandatory standardised methodology under **PO1** would **benefit all the other POs** by addressing the information failure. While its development and testing would imply one-off costs, cost savings are expected due to the fact that only one method would be developed and applied. However, the IA does not specify whether these costs would be paid by the industry or by the Commission and is ambiguous on the estimated costs (assessing that they range from €558 087 (for a 12-month development period) to €1 674 263 (for 36 months) and for testing to cost between €700 000 and €1 500 000) (p. 39). While the new methodology would not directly decrease pellet losses, improved data on pellet losses will enable them to be tackled, thereby benefiting the environment. The reporting obligation under this PO would enable the success rate to be measured.

No significant social impacts are expected under this PO. The IA could have been more specific regarding the implementation costs of using the common standard when stating that they do not need to be taken into account as they are already considered part of the reporting costs under the

REACH restriction on intentionally added microplastics (p. 39). Apart from the costs of development and testing (see also Annex 11, IA Part 2/3, p. 182), the IA provides no other quantitative analysis of the impacts of this PO. However, it reiterates that, under PO1, **cost savings** are expected to be **higher** than the development costs of the standard.

The IA states that mandatory requirements and certification under **PO2** would have the **highest reduction in pellet losses** and the **highest direct compliance costs**. As for the sub-options, the IA's analysis shows that 2a) would still have a very high reduction of pellet losses, but lower costs than PO2 due to lighter requirements for micro-enterprises, and the costs would be even lower under sub-option 2b), still with a very high reduction of pellet losses. 2c), however, would ensure a lower reduction of pellet losses with only slightly lower costs than 2b). The IA argues that lower costs to medium-sized enterprises are less important than for micro- and small enterprises (p. 41). Imposing mandatory requirements and certification for all companies in the sector would be the EU's responsibility, while the sector would bear the costs of implementation and of audits. Member States would be responsible for corrective measures and penalties in case of non-compliance.

The IA estimates the success rate would range from 80 % to 95 % (IA p. 41), thus bringing **significant environmental benefits**. The IA includes calculations of pellet losses in tonnes and in savings of kilotonnes of carbon dioxide equivalent (ktCO₂e) representing up to €58 million/year in savings for PO2 and its sub-options, but it does not provide any explanation of these calculations (p. 42).²

As regards **economic impacts**, the IA states that PO2 would entail **both costs and benefits**. It explains that compliance costs would vary significantly according to the type of company, with micro- and small enterprises being significantly affected by the costs incurred in upgrading their facilities, introducing internal and external audit procedures, and training their personnel. Cost calculations are presented in Annex 11; the IA points to cost-effectiveness ranging from €2 672 to €26 342/tonne avoided per year. Public authorities would incur costs related to monitoring, delays, complaint-handling mechanisms and access to justice. The IA holds that these costs would depend on implementation in the Member States, and that they would be higher for larger Member States. Reporting costs to notify the outcome of the certification are expected to be minor as, according to the IA, they 'already exist under REACH'.

Benefits for the sector include preventing estimated economic losses (of €42 million to €170 million associated with pellet losses) and, for instance, reduced waste, modernised equipment, and improved reputation (IA p. 44). The economy at large and society would also benefit from **indirect effects**, such as on commercial fishing, tourism and recreation, avoided clean-up costs for local communities, and reduced harm to ecosystems and biodiversity. **Social impacts** would consist of additional jobs required to prevent pellet losses and for training, estimated from 3 772 to 4 103 FTE personnel. The increased costs of raw materials should not affect consumers or is expected to be limited (IA p. 45). Table 7 in the IA clearly summarises all the impacts calculated for PO2 and its sub-options (pp. 46-47).

According to the IA, improved packaging of pellets under **PO3** would help to **reduce pellet losses** throughout the supply chain, but would **generate more GHG emissions** at **high investment costs** for the sector (pp. 47-49). The IA finds that, as different packaging materials do not present the same pellet loss risks, plastic bags would be targeted first due to their poor resistance to tears during handling: while replacing currently used plastic bags with thicker material would incur only a minor increase in GHG emissions due to more plastics being used, if they are replaced with different packaging materials (for instance, rigid HDPE barrels or intermediate bulk containers (IBC)), this would require more space for storage and transport, thus significantly increasing related GHG emissions. Replacing existing machinery and processes, however, is expected to generate extra costs. These 'potentially quite high costs' would particularly target producers and SMEs, according to the IA. The IA explains that producers (mainly large companies, as explained in the IA, p. 13) would need to replace their production lines, but it does not clarify how concretely SMEs would be affected, apart from stating that 'smaller enterprises would be affected more than bigger ones'.³ The

IA does not provide quantitative estimates for the direct compliance costs for the sector, justifying it with 'important data gaps' (p. 48). No social impacts are expected, according to the IA, unless the number of jobs is reduced by a switch to 'more automated solutions like silo trucks' (p. 49). Stakeholder views appear to differ on this measure; NGOs advocate improved packaging, contrary to the industry, which is more sceptical.

While PO3 has the **potential to significantly reduce pellet losses during handling operations** and have **significant positive environmental impacts**, the IA concludes that this PO is **not proportional** due to the high investment costs and the impacts being limited to transport.

An EU emissions target under **PO4** 'can significantly reduce pellet losses as it requires preventive, mitigation and clean-up measures to be taken' (IA p. 50). The IA argues, however, that enforcement might be challenging, as Member States would be tasked with ensuring its implementation. Furthermore, the measure can only be considered for the **medium to long term**, as, before defining the target, the methodology for measuring pellet losses under PO1 has to be established, tested and applied for at least 12-36 months, according to the IA. The IA considers that environmental impacts would be similar to those under PO2, but that the implementation and enforcement could be more challenging. To ensure that the target is respected, monitoring, and reporting by economic operators to Member States and by national authorities to the Commission, would **possibly increase the costs** of this PO compared to PO2. Stakeholders do not appear to have been consulted on this PO, but, according to the IA, it was 'mentioned that setting up a performance monitoring system would be costly'. As for social impacts, **additional job creation** in the industry (reducing pellet losses and reporting) and competent authorities (enforcement) could be expected. The IA concludes that **PO4 could be as efficient as PO2, but less effective**.

After assessing the impacts, the IA compares POs in terms of **benefit to cost** (on a relative scale, as 'there is few evidence in terms of absolute values') and their **effectiveness, efficiency, coherence and proportionality** (pp. 51-53). According to Table 10 (p. 52), PO1 and PO2b) would have a high benefit to cost ratio: while PO1 implies costs (development and testing), it would result in savings, as only one method would be developed and applied, also leading to lower verification costs. PO2b) would ensure a very high reduction of pellet losses with lower costs due to lighter requirements for micro- and small enterprises. Table 11 (p. 53) presents scores (from + to +++) and shows, for example, that only PO1 and PO2b) score +++ on efficiency, and that PO1 is the only option scoring +++ on proportionality.

Following the above analysis, the IA discusses the **preferred PO** – a combination of PO1 and PO2b) – and its impacts (pp. 54-61). According to the IA, PO1 is necessary to achieve the SO of improving information on the magnitude of pellet losses, in particular the accuracy of loss estimates, while PO2b) will help to reduce pellet losses (by 60-83 %, contributing up to **a quarter of the 30 % reduction target for microplastics**). According to the IA, such a significant reduction should outweigh the costs for the industry and bring very significant benefits, both direct (cost savings due to easier measurement of pellet losses, better monitoring, data collection and verification, and improved reputation of EU industry) and indirect (decrease potential risks to human health, healthier soil and water, less clean-up operations, and benefits to tourism and recreation). Table 14 (p. 58) provides an overview of the costs and benefits of the preferred PO. The IA also points out that costs calculated for the preferred option would be similar to the ones for the REACH restriction, but the significant reduction in pellet losses would make the **preferred option 3-4 times more efficient than the REACH restriction** (p. 60). It reiterates that unintentional releases of pellets constitute only 7-10 % of microplastic releases, but implementation of the preferred option would contribute a quarter of the Zero Pollution Action Plan's 30 % target for microplastic releases by 2030.

SMEs/Competitiveness

The IA dedicates a separate section to SMEs and to competitiveness (pp. 61-62). Although the IA does not refer to the **SME test**, it appears to have been properly conducted as recommended by the BRT ([#Tool23](#), p. 185) (see IA Annex 12). The IA points to the consultation specifically targeting SMEs

and its results showing the need for the lighter version of requirements, particularly on the obligation for external audit and certification. It argues that it took into account the results of this survey and chose sub-option 2b); however, it was decided not to include medium-sized companies, as 'the costs are significantly less burdensome to them, as emerged both during the survey and our cost analysis'.

The IA gives examples of further mitigating measures that could be used, such as longer phasing-in of requirements, EU programmes and support mechanisms and non-financial support (Box 4, pp.55-56). Regarding competitiveness, the IA claims that additional costs are likely to have a very minor negative impact on the competitiveness of EU pellet producers and provides further clarifications regarding the **competitiveness check** in Annex 5 (see [BRT](#), pp. 610-612).

Simplification and other regulatory implications

Table 14 (p. 58) in the main report of the IA provides an overview of the preferred PO's benefits and costs, but it is not clear from the IA how the cost calculations were made. Annex 3 includes a summary of costs and benefits (IA Part 2/3, pp. 111-116), but explanations of calculations and assumptions used can only be found in Annex 11 (IA Part 2/3, pp. 178-202). In line with the '**one-in one-out approach**' (OIOO) ([BRT #Tool59](#)), which aims to offset new burdens resulting from Commission proposals, the IA lists the administrative costs linked to implementation, reporting and monitoring under the preferred option. According to the IA, there are no administrative costs for citizens, while businesses will incur costs amounting to €44 million linked to internal assessments, external auditing and certification; further possible reductions are explained in Box 5 (p. 59). The IA argues in Table 14 that one-off costs linked to developing a measurement standard (€1.3 million to €3.2 million) would be compensated by recurrent savings in reporting, while costs for applying the new requirements (€376 million to €491 million) could be absorbed by businesses or passed on to consumers.

Monitoring and evaluation

While the IA underlines that the existing data is sufficient for a policy response, it also points out that additional monitoring is necessary to inform further policy developments and track success. It therefore underlines why PO1 was proposed: it is necessary to have a more precise estimate of total pellet losses to be able to track performance against the 30% microplastic reduction target by 2030. A **review of the initiative is envisaged in 2030** based on the results of the monitoring (p. 62). Further on, the IA refers to additional ways to monitor microplastics included in other legislation – for instance, the revision of the Urban Waste Water Treatment Directive ([UWWTD](#)) or the Marine Strategy Framework Directive ([MSFD](#)) (p. 63).

Stakeholder consultation

Annex 2 of the IA contains the **synopsis report** of stakeholder consultation activities (Part 2/3, pp. 33-106). It appears that consultation activities first focused on unintentional releases of microplastics from three sources – pellets, synthetic textiles and tyres – and were later extended to the remaining three sources (paints, geotextiles and detergent capsules). The information presented in this Annex is therefore much wider than the scope of the IA and of the initiative (plastic pellets). The IA explains in detail the consultation strategy and how it performed the mapping of stakeholders, and lists the consultation activities. Information on these activities and their outcome is public and available on the [Have Your Say](#) portal.

The IA explains how it conducted the **open public consultation** (12 weeks, 411 responses received) and analysed its results, which are transparently presented by stakeholder category. Questions for the general public only appear to concern microplastics in general (IA Part 2/3, pp. 40-48). However, the expert section had more targeted questions relevant for this IA (IA Part 2/3, pp. 48-58) and the answers are transparently disclosed, although they need to be located among all the other plastic pollution sources examined. Further on, several **online stakeholder workshops** were conducted, a couple of them concerning plastic pellets – for instance, on 25 November 2021 and 12 December

2022 – or including pellets among other sources. The IA also refers to **bilateral consultations** with stakeholders with the aim of collecting additional data and evidence (IA Part 2/3, p. 106). Stakeholders' opinions appear to be consistently referred to and taken into account throughout the IA – for instance, in problem definition, impact assessment and other sections – not least when designing the POs and selecting the preferred option and sub-option.

Supporting data and analytical methods used

Annex 1 presents an extensive list of literature sources used to inform the IA (Part 2/3, pp. 17-32). The IA appears to be based on recent, comprehensive and reliable data and sources, which are mostly well referenced. It refers to the results of public and targeted consultations, as well as analysis of future trends and data from other international organisations, expert groups and academia. However, the IA refers to the **study** that underpins it and to the possibility for stakeholders to provide input to it through a [dedicated website](#) (IA Part 2/3, p. 34), in Table 1 (p. 8) and a very few instances in the Annexes, but the supporting study does not appear to be available at the time of writing; it is not mentioned further nor is it referenced, so the IA lacks transparency as regards the study.⁴ The IA is transparent, though, on data source assumptions and uncertainties due to incomplete data.

Follow-up to the opinion of the Commission Regulatory Scrutiny Board

Following the **negative first opinion** by the Regulatory Scrutiny Board (RSB) on the draft IA report on 18 November 2022, the Commission presented a second draft on 17 May 2023, which received a **second opinion, positive with reservations**, on 12 June 2023. In its final opinion, the RSB identified the following main shortcomings in the amended report: (1) no sufficient justification why only measures for pellets and not for other sources were proposed; (2) the design of options does not bring out clearly all available policy choices; (3) the impact analysis is not sufficiently developed and the comparison of POs is not based on an assessment of their effectiveness, efficiency, coherence and proportionality; and (4) the analysis of the impacts on SMEs and EU sector competitiveness is inadequate. The IA explains in Annex 1 (IA part 2/3, pp. 5-16) how it was amended. It appears that the decision to limit the initiative to pellets only was taken after the RSB's first opinion and that initially the IA tackled all six main sources of microplastic pollution (Annex 1, p. 5). The Commission seems to have integrated most of the RSB's other comments in the final document, especially as regards the scope of the initiative, comparison of options (qualitative), the analysis of impacts on SMEs and competitiveness. It is not possible, however, to gauge to what extent the IA matches the expectations of the RSB's second opinion as the earlier drafts of the IAs are not published. Some weaknesses remain – for instance, regarding a better explanation of why the IA considers that some costs (testing and reporting) are considered to be accounted for under the REACH restriction, the further quantification of the expected benefits and the design of options, as requested by the RSB.

Coherence between the Commission's legislative proposal and IA

The legislative proposal corresponds to the preferred option and monitoring provisions identified in the IA, but there appears to be no mention of the review of the initiative.

The IA is convincing on the need and conditions being in place to tackle the unintentional releases of plastic pellets as the main focus of the legislative initiative, although it appears that initially all six main sources of microplastic pollution were considered. The IA draws on extensive scientific evidence, literature and stakeholder consultations. It defines the scale of the problem, its drivers, affected stakeholders and how likely the problem is to persist, referring, inter alia, to global trends and future scenarios. The IA sets the general objective of contributing to the reduction of microplastic-related pollution by preventing and reducing pellet losses to the environment, thus reducing the adverse consequences of pellet pollution. It suggests four policy options (POs) to tackle the problem, which, however, do not appear to be full self-standing alternatives. The IA points to the consultation specifically targeting SMEs and its results showing the need for the lighter version of requirements, particularly on the obligation for external audit and certification. It assesses each

policy option for their environmental, economic and social impacts, costs and administrative burden, and transparently lists assumptions, uncertainties and data limitations. However, the IA could have been clearer regarding reporting costs, which it considers to be accounted for under the REACH restriction, and the supporting study, and it could have made further efforts to quantify the expected benefits.

The IA selects the preferred PO after comparing POs in terms of benefit to cost and their effectiveness, efficiency, coherence and proportionality. It suggests a combination of PO1 and PO2b): a mandatory standardised methodology to measure pellet losses combined with the mandatory requirements to prevent and reduce pellet losses, including lighter requirements for micro- and small companies. The IA expects that the initiative will contribute up to a quarter of the total 30% reduction target for microplastics by 2030.

ENDNOTES

- ¹ According to the IA, pellets are defined within ISO 472:2013 as a small mass of preformed moulding material having relatively uniform dimensions in a given lot and can also be referred to as nurdles, nibs, preproduction pellets or resin pellets, and are the starting material for all plastic production worldwide (IA p. 7).
- ² Annex 11, however, includes a footnote 223 explaining that calculations are based on the [OECD report](#) (IA Part 2/3, p. 193).
- ³ In addition to producers, the IA explains that logistics operators would have to adapt their transport and storage approaches depending on the type of packaging (p. 48). The IA could be referring here to 'other logistic operators' that deal with tanks containing pellets and are mainly micro- and small enterprises (p. 13), but the assessment of impacts would have benefited from further, even if qualitative, clarification.
- ⁴ Annex 15 of the IA contains footnote 107 (Part 3/3, p. 270) on the report providing information 'in support [of] the study for the European Commission on "Microplastics pollution – measures to reduce its impact on the environment"', which could eventually constitute one of the components of the support study.

This briefing, prepared for the ENVI committee, analyses whether the principal criteria laid down in the Commission's own Better Regulation Guidelines, as well as additional factors identified by the Parliament in its Impact Assessment Handbook, appear to be met by the IA. It does not attempt to deal with the substance of the proposal.

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