AmCham EU
SPEAKING FOR AMERICAN BUSINESS IN EUROPE

Consultation response

# Investigating options for reducing releases in the environment of microplastics

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# Executive summary

Marine litter, much of which is plastic, is found in marine and coastal habitats throughout the world, washed ashore, floating or accumulating on the seafloor. Microplastics (Sized below 5 mm) are of particular concern.

The small size of microplastics and their material characteristics facilitate adsorption of toxic substances from the natural environment and increase their potential bioavailability to organisms throughout the food-chain. Their impacts can therefore be disproportionately high relative to the overall tonnage. They are used either intentionally in products (such as exfoliating components in cosmetics, in detergents, or as industrial blasting abrasives) or generated during the life cycle of products (for example during production of plastic products, through tyre wear or the washing of clothes). Microplastics can be partially treated in some waste water treatment plants or dispersed by the wind or via waste water effluents, rain drainage systems and/or rivers to reach the coastal and marine environment.

This internet-based consultation is part of the European Commission's efforts to understand the citizens' and stakeholders' views on the need for and possible range of measures which could be undertaken in order to reduce microplastics entering the marine environment under the basis of the precautionary principle. Some of the main sources of microplastics were identified in a previous Commission study. As part of the study that this consultation is supporting these sources and estimates are being investigated and fine-tuned.

# 2. Gauging Your Awareness and Concern for Microplastic Pollution

*The following section looks at how aware you are of the different sources of microplastics pollution and how concerned you are about it.*

***2.1 On a scale of (1) HIGH awareness to (3) NO awareness, what was you awareness level of the following possible sources of microplastic emissions to the environment before starting this survey?**

| Main sources | (1) High awareness | (2)Somewhat aware | (3) No awareness |
|---|---|---|---|
| *Agricultural Mulch Films | | X | |
| *Artificial Sports Turf | | X | |
| *Building Paints | | X | |
| *Clothing and textiles | | X | |
| *Cosmetics | | X | |
| *Detergents/cleaning products | | X | |
| *Fishing nets and related equipment | | X | |
| *Industrial Abrasives | | X | |
| *Marine Paints | | X | |
| *Pre-production Plastic Pellets | | X | |

| | | | |
|---|---|---|---|
| *Road Paint | | X | |
| *Road Tyres | | X | |

***2.2 On a scale of (1) MOST concern to (5) LEAST concern, which sources of microplastics emission sources are of most ENVIRONMENTAL concern to you?**

*Click here for definitions/explanations of the sources and base your judgement on your current understanding.*

| Main sources | (1) High Environmental Concern | 2 | 3 | 4 | (5)Not At All Concerned | Don't Know |
|---|---|---|---|---|---|---|
| *Agricultural Mulch Films | | | | | | X |
| *Artificial Sports Turf | | | | | | X |
| *Building Paints | | | | | | X |
| *Clothing and textiles | | | | | | X |
| *Cosmetics | | | | | | X |
| *Detergents/cleaning products | | | | | | X |
| *Fishing nets and related equipment | | | | | | X |
| *Industrial Abrasives | | | | | | X |
| *Marine Paints | | | | | | X |
| *Pre-production Plastic Pellets | | | | | | X |
| *Road Paint | | | | | | X |
| *Road Tyres | | | | | | X |

**2.3 Are there any other sources of microplastics emissions to the environment, not already listed above about which you are particularly concerned? Please state and explain why.**

Microplastics are defined by size only with no accompanying explanation of which materials may be included in the definition, which makes it extremely difficult to understand the scope of the questions and therefore to answer them. Without a clear regulatory scope, it is premature to list and to target specific sectors or products.

Even though, marine litter is one of the largest sources of secondary microplastics in volumetric terms, it is not addressed in this questionnaire. Yet, it has been estimated that 275 million metric tons of plastic waste was generated in 192 coastal countries in 2010 alone, with 4.8 to 12.7 million metric

tons entering the ocean because of poor waste management[1]. One of the sources of littering to the aquatic/marine environment that appears to be ignored is the untreated discharges from storm sewage overflows from waste water treatment plants. This phenomenon is well documented[2] and represents a significant source of contaminants (biological, chemical and physical material) to the aquatic environment[3]. Such discharges should be associated with 'exceptional' rain events, as the CJEU has established[4]. Unfortunately, they are a common occurrence and should be treated according to the Urban Waste Water Treatment Directive, requiring greater enforcement of public sector actors (i.e., the local authorities responsible for waste water treatment). This is why AmCham EU members call for the enforcement of the existing regulatory framework on waste management, as the first measure to be considered to mitigate the release of microplastics into the environment (as also indicated under question 3.6).

Regarding question 2.4 related to the potential impacts of microplastics, research is still in its infancy on detrimental effect of microplastics to human health. Some scientific studies also disprove the theory of microplastics acting as a vector for pollutant transfer.

AmCham EU members are therefore missing the basic information to assess the level of any potential damage.

***2.4 On a scale of (1) MOST concern to (5) LEAST concern, which are the potential impacts of microplastic emissions that are of most concern to you?**

[1] Jambeck et al. (2015). Plastic waste input from land into the ocean. Science 347(6223), 768-771, February 13th 2015.

[2] For example, *'Assessment of impact of storm water overflows from combined waste water collecting systems on water bodies (including the marine environment) in the 28 EU Member States'* (Contract 070201/2014/SFRA/693725/ENV/C.2) https://circabc.europa.eu/sd/a/c57243c9-adeb-40ce-b9db-a2066b9692a4/Final%20Report

[3] Charles Axelsson & Erik van Sebille (2017). Prevention through policy: Urban macroplastic leakages to the marine environment during extreme rainfall events. Marine Pollution Bulletin July 27th 2017 https://doi.org/10.1016/j.marpolbul.2017.07.024

[4] In Case **C-301/10** (Commission v United Kingdom) the CJEU found that the intensity and frequency of combined sewage overflows were such that they could not be characterised as being of an '*exceptional nature*', but rather of common occurrence and consequently the UK was in breach of 91/271/EEC (the Urban Waste Water Treatment Directive or UWWTD). http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62010CJ0301&from=EN

| | (1) High Concern | 2 | 3 | 4 | (5)Not At All Concerned/No impact | Don't Know |
|---|---|---|---|---|---|---|
| *Harm to human health | | | | | | X |
| *Harm to marine life | | X | | | | |
| *Costs and associated reduction in attractiveness for tourism | | | | | | X |
| *Reduction in aesthetic value of marine environments (sea surface, beaches etc.) | | | | | | X |

# 3. Reducing Microplastics Pollution

*The following section seeks your views on some of the potential policy options and mitigation strategies that could be employed to reduce microplastic emissions and who should potentially be responsible.*

## Microplastics generated from wear and tear and/or lost during product use

*The following questions focus on individual sources of microplastics that are generated during the use of a product and your answers should relate to these.*

***3.1 Road Tyres**

**a. Please express your opinion on whether you believe that the following possible approaches to reduce road tyre microplastic emissions to the marine environment would be effective. If you do not have a firm view or understanding of the particular measure select 'don't know'.**

| **Measures to reduce the wear rate of tyres** | Very Effective | Effective | Not Effective | Don't know |
|---|---|---|---|---|
| *Inclusion of a durability rating on the EU tyre label to enable consumers to make a more informed choice when purchasing tyres | | | X | |
| *Information campaign to raise awareness of the role of eco-driving in reducing tyre wear (e.g. avoid excessive speed, ensure correct tyre inflation etc.) | | X | | |
| *A voluntary commitment by industry to increase the durability of tyres | | | X | |

| | | | | |
|---|---|---|---|---|
| *Legislation requiring producers to increase the durability of their tyres (including phasing out the least durable tyres over time) | | | X | |
| *Financial incentives for producers to increase the durability of vehicle tyres | | | X | |

| **Measures to increase the capture of tyre particles** | Very Effective | Effective | Not Effective | Don't know |
|---|---|---|---|---|
| *Increasing the use of porous asphalt which allows particulates (and rainwater) to pass through the road surface and the particulates can be captured | | X | | |
| *Increasing the use of natural buffers e.g. SuDS (sustainable drainage) to capture surface water from roads in vegetated strips adjacent to the asphalt surface | | X | | |
| *Increasing the rate of road sweeping in order to remove dust (including vehicle tyre particles) | | X | | |
| *Develop and install technologies that are proven to capture microplastics in a municipal waste water treatment plant and prevent them from entering effluents (and subsequently surface waters) | | X | | |

**b. Are there any other approaches to reducing tyre microplastics emissions to the marine environment that you believe would be effective? Please state and explain why.**

There is a need to clarify the terminology: tyre durability mentioned in the survey relates to tyre tread abrasion rate and not to tyre mileage or tyre wear life. As this concept is not defined in the questionnaire, this could lead to confusion and therefore to non-exploitable answers. Policy mitigation measures aiming at influencing tyre design will only have marginal effect, considering the quantity and importance of external counter effects. A combination of mitigation options needs to be considered with the support of all relevant stakeholders, starting with the ones that have the highest impact on the emission of tyre and road wear particles. A few examples of these measures: (not exhaustive)

1. Education on driving behavior (part of driving license)
2. Adjustment of road surface parameters
3. Adjustment of traffic regulation
4. Adjustment of vehicle characteristics
5. Vehicle maintenance
6. Road maintenance
7. Tyre maintenance (inflation pressure)
8. Enlarging the scope of TPMS requirement

**c. On a scale of (1) GREATEST responsibility (5) LEAST responsibility, who do you think should take action for reducing tyre microplastics emissions to the marine environment?**

| | (1) GREATEST responsibility | 2 | 3 | 4 | (5) LEAST responsibility | Don't Know |
|---|---|---|---|---|---|---|
| *European Commission | | X | | | | |
| *Member states (countries) | | X | | | | |
| *Individuals | | X | | | | |
| *Tyre Industry | | X | | | | |

***3.2 Pre-production Plastic Pellets, Powders and Flakes**

**a. Please express your opinion on whether you believe that the following possible approaches to reduce pre-production plastic pellets emissions to the marine environment would be effective. If you do not have a firm view or understanding of the particular measure select 'don't know'.**

| **Preventing supply chain loss through implementation of industry recognised best practice** | Very Effective | Effective | Not Effective | Don't know |
|---|---|---|---|---|
| *Continue current industry-led activities to encourage the voluntary uptake of best practice measures highlighted in Operation Clean Sweep guidance | X | | | |
| *An 'enhanced' business-led approach using retailer procurement standards to require suppliers (and those who supply them) to demonstrate (including an audit process) that they are adhering to Operation Clean Sweep guidance | | X | | |
| *Legislation at the EU level requiring all companies placing plastics on the EU market to demonstrate that their supply chain adheres to best practice as outlined in Operation Clean Sweep guidance | | | X | |

| **Measures to increase the capture of plastic pellets** | Very Effective | Effective | Not Effective | Don't know |
|---|---|---|---|---|
| *Develop and install technologies that are proven to capture microplastics in a municipal waste water treatment plant and prevent them from entering effluents (and subsequently surface waters). | | | X | |
| *Mandate the installation of technologies that are proven to capture microplastics on manufacturing locations or sites handling pellets e.g. drain traps or onsite waste and waste water treatment. | | | X | |

**b. Are there any other approaches to reducing pre-production plastic pellets emissions to the marine environment that you believe would be effective? Please state and explain why.**

**c. On a scale of (1) GREATEST responsibility (5) LEAST responsibility, who do you think should take action for reducing pre-production plastic pellets emissions to the marine environment?**

| | (1) GREATEST responsibility | 2 | 3 | 4 | (5) LEAST responsibility | Don't Know |
|---|---|---|---|---|---|---|
| *European Commission | | | | | X | |
| *Member states (countries) | | | | | X | |
| *Individuals | | | | | X | |
| *Plastic pellet producers | X | | | | | |
| *Plastic pellet converters | X | | | | | |
| *Logistics Companies | X | | | | | |

***3.3 Clothing and Textiles**

**a. Please express your opinion on whether you believe that the following possible approaches to reduce microplastic (synthetic fibre) emissions from clothing and textiles to the marine environment would be effective. If you do not have a firm view or understanding of the particular measure select 'don't know'.**

*Research on the relative importance of attributes of synthetic clothing (such as the type of fibre, fibre length, type of weave used) that may affect the rate of microfibre loss, is still at an early stage. It is therefore not clear at present what manufacturers or users can do to reduce the loss of microfibres from synthetic clothing. Research also suggests that the rate of loss of synthetic microfibres from clothing is highest during the first few washes, and then declines.*

| **Measures to reduce the propensity of synthetic textiles to be shed from clothing** | Very Effective | Effective | Not Effective | Don't know |
|---|---|---|---|---|
| *Require all synthetic clothing to be pre-washed by the manufacturer, with fibres collected and managed appropriately, prior to the items being placed on the market | | X | | |
| *Awareness raising campaign among consumers to alert them to actions they can take to reduce fibre loss, including washing less, washing full loads, washing at low temperatures, and using liquid detergents rather than powder | | X | | |
| *Promote further research on the relative importance of attributes of synthetic clothing affecting the rate of microfiber (e.g. the type of fibre, fibre length, type of weave used) and widely disseminate its results | | X | | |

| | | | | |
|---|---|---|---|---|
| *Require all clothing placed on the EU market to indicate whether the item is likely to lead to high/medium/low or no loss of synthetic microfibres | | | X | |
| *Develop EU Ecolabel criteria that manufacturers can choose to adopt. | | | X | |
| *Develop a mandatory requirement for the progressive reduction of microfiber release that must be adopted by manufacturers of clothing sold in the EU. | | | | X |
| *Apply an economic instrument to financially incentivise a shift towards clothing that releases fewer or no synthetic microfibers. | | | X | |

| **Measures to capture synthetic textiles shed from clothing** | Very Effective | Effective | Not Effective | Don't know |
|---|---|---|---|---|
| *A requirement for all new washing machines to be fitted with filters to trap microfibres. These would need to be manually emptied periodically with the contents discarded with residual solid waste. | | X | | |
| *A voluntary measure whereby manufacturers are encouraged to provide a microfibre capture bag with each washing machine placed on the market. The user places clothing inside this bag before placing it in the washing machine, and it captures microfibres. It then needs to be manually emptied. | | X | | |
| *Develop and install technologies that are proven to capture microfibres in a municipal waste water treatment plant and prevent them from entering effluents (and subsequently surface waters). | X | | | |

**b. Are there any other approaches to reducing microplastics (synthetic fibre) emissions to the marine environment from clothing and textiles that you believe would be effective? Please state and explain why.**

**c. On a scale of (1) GREATEST responsibility (5) LEAST responsibility, who do you think should take action for reducing microplastics (synthetic fibre) emissions to the marine environment from clothing and textiles?**

| | (1) GREATEST responsibility | 2 | 3 | 4 | (5) LEAST responsibility | Don't Know |
|---|---|---|---|---|---|---|
| *European Commission | | X | | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| *Member states (countries) | | X | | | | |
| *Individuals | | | X | | | |
| *Textiles/fibres Manufacturers | | | X | | | |
| *Clothing Manufacturers | | | | X | | |
| *Clothing Retailers | | | | X | | |
| *Washing machine manufacturers | | X | | | | |

***3.4 Artificial Sports Turf**

**a. Please express your opinion on whether you believe that the following possible approaches to reduce microplastic emissions from artificial sports turf to the environment would be effective. If you do not have a firm view or understanding of the particular measure select 'don't know'.**

| **Changes to handling and management of infill** | Very Effective | Effective | Not Effective | Don't know |
|---|---|---|---|---|
| *Develop and disseminate best practice guidance for the management of infill associated with artificial sports turf in order to increase awareness and encourage improvements | | | | X |
| *Include best practice management techniques as requirements for pitches that wish to be certified by FIFA (or the relevant accreditation body for the pitch in question). | | | | X |
| *Develop and install technologies that are proven to capture microplastics in a municipal waste water treatment plant and prevent them from entering effluents (and subsequently surface waters). | | | | X |
| *Mandate the installation of technologies that are proven to capture microplastics on sports turf sites e.g. drain traps or onsite waste water treatment. | | | | X |

| **Changes to the nature of the infill** | Very Effective | Effective | Not Effective | Don't know |
|---|---|---|---|---|
| *Awareness raising of the possible use of alternative non-polymer based infill material such as cork | | | X | |
| *Voluntary, industry led, commitment to increase the use of non-polymer based infill | | | X | |
| *Financial incentives to move towards non-polymer based infill | | | X | |

| | | | | |
|---|---|---|---|---|
| *A ban on the use of polymer based infill as an infill material for artificial sports turf | | | X | |

**b. Are there any other approaches to reducing microplastics emissions to the marine environment from artificial sports turf that you believe would be effective? Please state and explain why.**

The introduction of the term "non-polymer" is inappropriate as it may generate confusion between polymers and plastics. While all plastics are polymers, not all polymers are plastics. A polymer is a large molecule made up of repeating sequences of smaller molecules. While many polymers have been developed by mankind to perform a wide variety of functions that are central to modern living, many exist in nature – e.g. our DNA, proteins, sugars, fats, carbohydrates etc. Plastics are but one example of solid, man-made materials consisting of polymers. The correct terminology should be used to avoid confusion or disproportionate regulatory measures that do not lead to any real benefit to the environment.

**c. On a scale of (1) GREATEST responsibility (5) LEAST responsibility, who do you think should take action for reducing microplastics emissions to the marine environment from artificial sports turf?**

| | (1) GREATEST responsibility | 2 | 3 | 4 | (5) LEAST responsibility | Don't Know |
|---|---|---|---|---|---|---|
| *European Commission | | X | | | | |
| *Member states (countries) | | X | | | | |
| *Individuals | | | | X | | |
| *Artificial turf manufactures/ installers | | X | | | | |
| *Artificial turf pitch owners/managers | | X | | | | |
| *National and regional sport Federations | | X | | | | |

## Intentionally added microplastics

*The following question focuses on individual sources of microplastics that are intentionally added to a product. This is in support of a targeted stakeholder consultation which took place on this subject during April/May 2017.*

*** 3.5 Which is for you, the most efficient and effective way to address individual sources of microplastics that are intentionally added into the following products?**

| | Voluntary Industry phase-out | Prominent, mandatory labelling to | Tax on microplastic ingredients | Ban on microplastics ingredients | Strongly Oppose | Don't Know |
|---|---|---|---|---|---|---|

| | | | | | | |
|---|---|---|---|---|---|---|
| | | show the product contains microplastics | | | such measures | |
| *Cosmetics | X | | | | | |
| *Detergents/ Cleaning products | | | | | | X |
| *Building Paints | | | | | | X |
| *Other - please specify | X | | | | | |

**3.5 a If you have chosen Other please specify the product**

Voluntary actions have already proven to be the most effective and appropriate response: commitments taken by the cosmetics industry have already enabled to phase-out more than 82% of solid microbeads in wash-off cosmetic products between 2012 and 2016. Voluntary action is usually faster to implement than legislation. Legislative and regulatory responses should be used only if there is a significant number of non-compliant companies distorting the level playing field and threatening the success of the voluntary commitment. Should policy makers remain convinced of the need for a legislative ban, mandatory labelling, or a tax on microplastic ingredients, these measures need to: be scientific evidence-based and proportionate; be based upon clear and appropriate definitions; address a demonstrated risk; provide an appropriate time to identify alternative ingredients that are safe for both humans and the environment; replace any national measures in EU Member States to safeguard the functioning of the internal market and to ensure a level playing field.

## Financial Responsibility

*The following question looks at where the financial responsibility should lie for the implementation of any of the proposed measures.*

***3.6 On a scale of (1) GREATEST responsibility (5) LEAST responsibility, who do you think should bear the FINANCIAL responsibility for reducing microplastics emissions to the marine environment?**

| | (1) GREATEST responsibility | 2 | 3 | 4 | (5) LEAST responsibility | Don't Know |
|---|---|---|---|---|---|---|
| *Manufacturers of the products concerned, through their own waste and waste water treatment facilities or through public facilities which should | | | X | | | |

| | | | | | | |
|---|---|---|---|---|---|---|
| capture or be upgraded to capture microplastics before they are released in the environment with costs potentially included in the prices of those products | | | | | | |
| *The (public or private) waste and waste water treatment companies (who may be able to capture microplastics) and potentially pass the costs in water price/taxes | | | X | | | |
| *Government/ Tax payers | | | X | | | |

# 4. Document Upload

**You may upload here an additional document on the subject of this consultation (max. 3 pages/2000 words).All additional documents provided will be published on the Commission website.**

**Amcham EU – additional comment to the consultation on microplastics**

AmCham EU firmly believes in the importance of protecting the aquatic and marine environment. It welcomes both global and European ambitions to significantly reduce marine pollution in the coming years. Furthermore, AmCham EU members actively support the transition to a more circular economy and continuously strive to optimize raw material consumption. Through more efficient resource management, the industry is not only limiting the generation of waste, but also pollution.

Even though AmCham EU members recognize the need to address the issue of microplastics, a European action alone would not be appropriate to deal with an issue which knows no border. China, Indonesian, Philippines, Vietnam, Sri Lanka and Thailand together account for 2/3 of global inputs, while the whole of the EU, if amalgamated, would be ranked 18$^{th}$[5]. International frameworks for action already exist, like the Global Partnership on Marine Litter (GPML) or the Sustainable Development Goals (SDG) which set ambitious targets in terms of reducing pollution of all kinds by 2025. Besides, only a European harmonized approach would ensure efficiency and prevent the multiplication of national restrictions which, set without solid scientific evidence, may constitute a barrier to the single market and be disproportionate if not based on solid scientific data.

AmCham EU members welcome the opportunity to contribute to the Commission's consultation on reducing the amount of microplastics being released into the environment, to provide policy makers and relevant stakeholders with further information and an industry perspective, while addressing a number of shortcomings that could be misleading and detrimental to the quality of the public debate.

- **The survey needs to look at all major sources of microplastics that are released into the environment**

Marine littering through microplastics is a recognized environmental concern that stems from a multitude of sources on land. In order to effectively deal with this issue all sources need to be considered.

[5] Jambeck et al. (2015). Plastic waste input from land into the ocean. Science 347(6223), 768-771, February 13$^{th}$ 2015.

One of the sources of littering to the aquatic/marine environment that appears to be ignored is the untreated discharges from storm sewage overflows from waste water treatment plants. This phenomenon is well documented[6] and represents a significant source of contaminants (biological, chemical and physical material) to the aquatic environment[7]. Such discharges should be associated with 'exceptional' rain events, as the CJEU has established[8]. Unfortunately, they are a common occurrence and should be treated according to the Urban Waste Water Treatment Directive, requiring greater enforcement of public sector actors (i.e., the local authorities responsible for waste water treatment).

To effectively and efficiency address the issue, focus should be on the policy and practical solutions required to effectively manage macroplastic waste before it ends up in the world's oceans. This is why the enforcement of existing waste treatment regulatory framework should be enforced, while encouraging:

- the development of efficient waste management systems, including effective infrastructures for collection and sorting of waste or waste water treatment plants with stronger retention rates;
- the design of products that takes into account resource efficiency and litter into consideration;
- awareness raising: the wider issue of littering –the primary route by which plastics leak into the environment – should be addressed through awareness raising and education. As no product or package is produced to be littered, littering is mainly a consequence of negligent and/or illegal behaviour by citizens. Appropriate consumer education programmes would be best placed to address it.

[6] For example, *'Assessment of impact of storm water overflows from combined waste water collecting systems on water bodies (including the marine environment) in the 28 EU Member States'* (Contract 070201/2014/SFRA/693725/ENV/C.2) https://circabc.europa.eu/sd/a/c57243c9-adeb-40ce-b9db-a2066b9692a4/Final%20Report

[7] Charles Axelsson & Erik van Sebille (2017). Prevention through policy: Urban macroplastic leakages to the marine environment during extreme rainfall events. Marine Pollution Bulletin July 27th 2017 https://doi.org/10.1016/j.marpolbul.2017.07.024

[8] In Case **C-301/10** (Commission v United Kingdom) the CJEU found that the intensity and frequency of combined sewage overflows were such that they could not be characterised as being of an '*exceptional nature*', but rather of common occurrence and consequently the UK was in breach of 91/271/EEC (the Urban Waste Water Treatment Directive or UWWTD). http://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:62010CJ0301&from=EN

- **The absence of a proper definition generates regulatory uncertainty**

The introduction of the survey refers to marine litter, and moves immediately to microplastics as an issue of concern, with a limited definition of microplastics as "sized below 5 mm". We know from regulatory activity in many jurisdictions globally that definitions are of critical importance in scoping an opportunity and defining ways in which to affect policy change. The lack of a more comprehensive common definition negatively affects the understanding of the issue, while undermining any possible future efforts to address it.

A report commissioned by the Commission last year points out that "the definition of microplastics can vary greatly between literation sources (…)" and recommends "that this is one of the most important issues that must be addressed for all future research" [9]. Therefore, AmCham EU calls on the Commission to build on existing scientifically-based and industry-endorsed definitions where feasible, as well as mirroring existing international regulations to ensure consistency at the global level. AmCham EU members propose the following definitions:

- *Microplastic:* Any 5 mm or less, water insoluble, solid plastic particle that could be found as marine litter. *Primary microplastics* are manufactured for specific consumer applications and are used to achieve specific performances, such as improving the manufacturing process or reducing waste while *secondary microplastics* originate from the fragmentation of larger plastic items by use, waste management or in the environment. These particles are generated by the abrasion of non-biodegradable larger plastic items over periods of time.

- *Plastic microbead:* Any intentionally added, 5 mm or less, water insoluble, solid plastic particle used to exfoliate or cleanse in rinse-off personal care products. Plastic microbeads are a type of primary microplastic.

- *Plastic:* synthetic water insoluble polymers that are molded, extruded or physically manipulated into various, solid forms which retain their defined shapes in their intended applications during their use and disposal.

The legislation should also recognize the difference between polymers and plastics, which is particularly relevant when it comes to marine litter. While all plastics are polymers, not all polymers are plastics. A polymer is a large molecule made up of repeating sequences of smaller molecules and the concept is already defined under REACH. While many polymers have been developed by mankind to perform a wide variety of functions that are central to modern living, many exist in nature – e.g.

[9] *Measures to Combat Marine Litter*, Eunomia (2016), p. 203

our DNA, proteins, sugars, fats, carbohydrates etc. Plastics are but one example of solid, man-made materials consisting of polymers.

The correct terminology should be used to avoid confusion or disproportionate regulatory measures that do not lead to any real benefit to the environment, while properly understanding the different uses and carefully weighting the potential regulatory options.

- **Advanced regulatory options should be supported by robust data**

The Commission by ranking on specific sectors and products that are largest and lowest pollutants, has adopted a public bias towards some industries. However, the Commission has not provided any robust scientific data to support their proposal and even recognize that the estimates, on which they have been basing their findings, "are being investigated and fine-tuned".

Today there is still a knowledge gap regarding the volume and origin of microplastics. Available studies that are built on literature reviews and calculation models and they show, depending on the underlying assumptions, huge discrepancies and inconsistencies in terms of volume. The graph included in the consultation to represent the absolute contribution of each sector perfectly illustrates this: the gap between the lower and the highest varies by 40 to 50% on average, but for the textile the discrepancy is 13 times more important. Therefore, depending on what estimate is retained, the relative ranking of sectors may vary very significantly. A report by UNEP[10] on marine debris and microplastics released in 2016, further underlines this, in that it recognizes that the "sources of plastics and microplastics in the ocean are many and varied, but the actual quantities involved remain largely unknown". Little research has been carried out on the ground and further efforts are required to close the knowledge gap.

For this reason AmCham EU is all the more concerned that the Commission is already considering advanced regulatory options, which may have a huge impact on targeted sectors, without a comprehensive definition or even reliable scientific data. AmCham EU members believe that a comprehensive impact assessment is needed before any measure can even be considered. While legislation is essential in achieving policy objectives and creating benefits for businesses and society, it can however also generate unwanted additional regulatory costs and burdens. Determining the appropriate legislative options for reducing microplastics releases is a complex exercise which should strike the right balance between efficient deterrence and unnecessary burdens for companies who are genuinely trying to comply.

Therefore AmCham EU promotes a risk-based scientific approach to close the knowledge gaps on the potential impact of sources of microplastics and any potential hazards to marine life, before measures

[10] *Marine plastic debris and microplastics – Global lessons and research to inspire action and guide policy change,* UNEP (2016), xi.

are proposed to restrict them. As the release of microplastics is multi-sectorial, the entire life cycle of a product should be taken into consideration in order to identify the main hot spots along the chain and develop effective solutions mutually.

- **Industry is already taking action**

The Industry is committed to reducing the release of microplastics into the environment. Specific sectors have already taken action:

- **At EU level cosmetics & personal care products:** in 2015, building on voluntary commitments taken by individual companies, Cosmetics Europe recommended to its membership a discontinuation of synthetic, solid microbeads, which are non-biodegradable in the marine environment, in wash-off cosmetic products as of 2020. A recent survey[11] found that since 2012, the industry had already phased out 82% of these ingredients at least in 2016 and is still improving. The industry expects to achieve its objective before 2020; with some members having committed to earlier deadlines. In any case, scientific evidence suggests that microplastics from cosmetics and personal care products only contribute to 0.1 %–1.5 % of the aquatic plastic litter[12].
- **At national level cosmetics and detergents**: the industry also cooperates with public authorities to define and implement new sectoral agreements. The Belgian and Luxembourg association of producers and distributors of cosmetics, cleaning and maintenance products (DETIC)[13] will report yearly on the phase-out and the government can perform spot checks. Further phase-outs and actions could be considered according to the evolution of science.
- **Tyre industry**: since 2006 the Tyre Industry Project (TIP)[14], which brings together the leading tyre manufacturers under the umbrella of the World Business Council for Sustainable Development (WBCSD), has been working to identify and address the potential health and environmental impacts of materials that are associated with the making and use of tyres. Based on the methods and knowledge developed by TIP, the European tyre and rubber manufacturer association (ETRMA) has commissioned this year an extensive research on the quantity of tyre and road wear particles released into the environment.
- **Pellets, powder and flake**: member companies, such as Dow Chemical and LyondellBasell, have demonstrated their commitment to a clean environment by partnering with Operation Clean Sweep and signing the “Pledge to Prevent Resin Pellet, Flake, and Powder Loss” with a

[11] https://www.cosmeticseurope.eu/news-events/reduction-use-plastic-microbeads

[12] Gouin et al 2015, “Use of Micro-Plastic Beads in Cosmetic Products in Europe and Their Estimated Emission to the North Sea Environment” found that in 2012, 4360 tons were used.

[13] http://www.detic.be/en/consumers

[14] http://www.wbcsd.org/Projects/Tire-Industry-Project

goal of zero pellet loss. Operation Clean Sweep® (OCS), is a voluntary international programme designed to prevent resin pellet, flake, and powder loss and help keep this material out of the marine environment – both protecting the environment and saving valuable resources.