

# EU SURVEY on microplastics 2022

Fields marked with \* are mandatory.

## Introduction

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### Background information

Microplastics are small pieces of less than 5 mm made of synthetic polymers that are becoming the most widespread and persistent contaminant in the environment.

Microplastics are ubiquitous and a cause of growing concern. They can be found in soil, air, water and living organisms. They can accumulate through the food chain and adsorb and transport other organic contaminants and their small size facilitates ingestion by organisms. They can contain a complex mixture of chemicals, which may subsequently be released in the environment and constitute new routes of exposure for organisms. Their ubiquity is amplifying concerns about their negative effects on vulnerable eco-systems (e.g. coral reefs, deep seas, polar regions), biodiversity (all marine life from plankton to large marine mammals) and human health. Moreover, the economic impact to terrestrial and marine ecosystems due to plastics releases in the environment is vast.

The [WHO](#) and [EC Chief Scientific Advisors](#) recommend applying the precautionary principle approaching the microplastic pollution. The European Green Deal, the Circular Economy Action Plan, marine environment legislation and the EU Plastics Strategy announced measures to tackle pollution from microplastics; EU requires that microplastics do not harm marine or coastal environment. The Zero Pollution Action Plan aims to reduce by 30% microplastics released into the environment by 2030. Coordination with these and other relevant initiatives needs to be ensured.

### Scope and objective

This public consultation aims to support the European Commission's initiative on [Microplastics pollution – measures to reduce impacts on the environment](#). This initiative focusses on microplastics that are unintentionally released into the environment such as resulting from the use of a product, for instance by fragmentation or abrasion. It focusses on the sources with the highest known releases:

1. from plastic pellets (intermediate materials used for the fabrication of plastic items),
2. from synthetic textiles,
3. from tyre abrasion,
4. from paints, including architectural and marine paints, road markings,
5. from geotextiles (used for civil engineering works such as road construction, coastal erosion prevention, drainage, etc.),
6. from detergent capsules for laundry and dishwashers.

While the initial scope was only on pellets, textiles and tyre abrasion, the impact assessment support study on '[Cost-benefit analysis of measures reducing unintentional releases of microplastics in the environment](#)' and stakeholder consultations called the attention to three additional sources: paints, geotextiles and detergent capsules.

This initiative does not address:

- intentionally added microplastics to products (e.g. cosmetics, detergents, fertilizers coatings): they are subject to a separate initiative under the [REACH Regulation](#);
- microplastics resulting from the fragmentation of macroplastics: they are addressed by existing legislation such as the Single Use Plastics Directive.

This public consultation will help gather data and information to close the gaps in knowledge related to the following:

- sources, pathways and impacts of microplastics on the environment and on human health;
- identification of measures to reduce the release of microplastics in the environment, e.g. labelling, standardisation, voluntary and regulatory measures, behavioural change;
- views on possible reduction measures.

### Guidance on the questionnaire

This public consultation has three parts:

- Part I: it includes some introductory questions on your profile
- Part II: no expert knowledge required to reply to this
- Part III (from A to F): expert knowledge required to reply to this
- Part IV: all addressed sources

### **Please note that you are not obliged to respond to all questions in the questionnaire.**

At the end of the questionnaire, you are invited to provide any additional comments and to upload additional information, position papers or policy briefs that express the position or views of yourself or your organisation.

The results of the questionnaire and the accompanying position papers and policy briefs will be published online. Please read the specific privacy statement informing on how the European Commission will deal with personal data and contributions.

## Part I.

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### About you

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#### \* Language of my contribution

- Bulgarian
- Croatian
- Czech
- Danish
- Dutch
- English
- Estonian
- Finnish
- French

- German
- Greek
- Hungarian
- Irish
- Italian
- Latvian
- Lithuanian
- Maltese
- Polish
- Portuguese
- Romanian
- Slovak
- Slovenian
- Spanish
- Swedish

\* I am giving my contribution as

- Academic/research institution
- Business association
- Company/business organisation
- Consumer organisation
- EU citizen
- Environmental organisation
- Non-EU citizen
- Non-governmental organisation (NGO)
- Public authority
- Trade union
- Other

\* First name

Paolo

\* Surname

Campanella

\* Email (this won't be published)

paolo.campanella@fead.be

\* Organisation name

*255 character(s) maximum*

FEAD - European Waste Management Association

\* Organisation size

- Micro (1 to 9 employees)
- Small (10 to 49 employees)
- Medium (50 to 249 employees)
- Large (250 or more)

\* Select for which of the source(s) below you want to answer specific questions

- Pellets
- Tyres
- Textiles
- Paints
- Geotextiles
- Detergent capsules
- None

\* If you are giving your contribution as a representative of a business, please provide the sector

- Plastics producer
- Plastics converter
- Plastics logistic, transporter, distributor, tank clean station
- Final plastic product producer
- Plastics recycler
- Not applicable

\* If you are giving your contribution as a representative of a business, please provide the sector

- Textile producer
- Textile seller

- Washing machines (building and using)
- Drying machines (building and using)
- Not applicable

\* If you are giving your contribution as a representative of a business, please provide the sector

- Tyre producer
- Car / vehicle producer
- Transport sector
- Not applicable

\* If you are giving your contribution as a representative of a business, please provide the sector

- Paint producer
- Paints seller
- Business using paints
- Application and cleaning business
- Not applicable

\* If you are giving your contribution as a representative of a business, please provide the sector

- Producers of the capsule cover
- Capsule producer
- Detergents producer
- Washing and laundry machines (building and using)
- Not applicable

\* If you are giving your contribution as a representative of a business, please provide the sector

- Geotextile producer
- User
- Not applicable

### Transparency register number

*255 character(s) maximum*

Check if your organisation is on the [transparency register](#). It's a voluntary database for organisations seeking to influence EU decision-making.

\* Country of origin

Please add your country of origin, or that of your organisation.

- |   |   |  |  |
|---|---|--|--|
| <input type="radio"/> Afghanistan         | <input type="radio"/> Djibouti                            | <input type="radio"/> Libya            | <input type="radio"/> Saint Martin                                 |
| <input type="radio"/> Åland Islands       | <input type="radio"/> Dominica                            | <input type="radio"/> Liechtenstein    | <input type="radio"/> Saint Pierre and Miquelon                    |
| <input type="radio"/> Albania             | <input type="radio"/> Dominican Republic                  | <input type="radio"/> Lithuania        | <input type="radio"/> Saint Vincent and the Grenadines             |
| <input type="radio"/> Algeria             | <input type="radio"/> Ecuador                             | <input type="radio"/> Luxembourg       | <input type="radio"/> Samoa  |
| <input type="radio"/> American Samoa      | <input type="radio"/> Egypt                               | <input type="radio"/> Macau            | <input type="radio"/> San Marino                                   |
| <input type="radio"/> Andorra             | <input type="radio"/> El Salvador                         | <input type="radio"/> Madagascar       | <input type="radio"/> São Tomé and Príncipe                        |
| <input type="radio"/> Angola              | <input type="radio"/> Equatorial Guinea                   | <input type="radio"/> Malawi           | <input type="radio"/> Saudi Arabia                                 |
| <input type="radio"/> Anguilla            | <input type="radio"/> Eritrea                             | <input type="radio"/> Malaysia         | <input type="radio"/> Senegal                                      |
| <input type="radio"/> Antarctica          | <input type="radio"/> Estonia                             | <input type="radio"/> Maldives         | <input type="radio"/> Serbia                                       |
| <input type="radio"/> Antigua and Barbuda | <input type="radio"/> Eswatini                            | <input type="radio"/> Mali             | <input type="radio"/> Seychelles                                   |
| <input type="radio"/> Argentina           | <input type="radio"/> Ethiopia                            | <input type="radio"/> Malta            | <input type="radio"/> Sierra Leone                                 |
| <input type="radio"/> Armenia             | <input type="radio"/> Falkland Islands                    | <input type="radio"/> Marshall Islands | <input type="radio"/> Singapore                                    |
| <input type="radio"/> Aruba               | <input type="radio"/> Faroe Islands                       | <input type="radio"/> Martinique       | <input type="radio"/> Sint Maarten                                 |
| <input type="radio"/> Australia           | <input type="radio"/> Fiji                                | <input type="radio"/> Mauritania       | <input type="radio"/> Slovakia                                     |
| <input type="radio"/> Austria             | <input type="radio"/> Finland                             | <input type="radio"/> Mauritius        | <input type="radio"/> Slovenia                                     |
| <input type="radio"/> Azerbaijan          | <input type="radio"/> France                              | <input type="radio"/> Mayotte          | <input type="radio"/> Solomon Islands                              |
| <input type="radio"/> Bahamas             | <input type="radio"/> French Guiana                       | <input type="radio"/> Mexico           | <input type="radio"/> Somalia                                      |
| <input type="radio"/> Bahrain             | <input type="radio"/> French Polynesia                    | <input type="radio"/> Micronesia       | <input type="radio"/> South Africa                                 |
| <input type="radio"/> Bangladesh          | <input type="radio"/> French Southern and Antarctic Lands | <input type="radio"/> Moldova          | <input type="radio"/> South Georgia and the South Sandwich Islands |
| <input type="radio"/> Barbados            | <input type="radio"/> Gabon                               | <input type="radio"/> Monaco           | <input type="radio"/> South Korea                                  |
| <input type="radio"/> Belarus             | <input type="radio"/> Georgia                             | <input type="radio"/> Mongolia         | <input type="radio"/> South Sudan                                  |
| <input checked="" type="radio"/> Belgium  | <input type="radio"/> Germany                             | <input type="radio"/> Montenegro       | <input type="radio"/> Spain  |
| <input type="radio"/> Belize              | <input type="radio"/> Ghana                               | <input type="radio"/> Montserrat       | <input type="radio"/> Sri Lanka                                    |

- Benin
- Bermuda
- Bhutan
  
- Bolivia
- Bonaire Saint Eustatius and Saba
- Bosnia and Herzegovina
- Botswana
- Bouvet Island
- Brazil
- British Indian Ocean Territory
- British Virgin Islands
- Brunei
- Bulgaria
  
- Burkina Faso
- Burundi
  
- Cambodia
  
- Cameroon
- Canada
- Cape Verde
- Cayman Islands
  
- Central African Republic
- Chad
- Chile
  
- Gibraltar
- Greece
- Greenland
  
- Grenada
- Guadeloupe
  
- Guam
  
- Guatemala
- Guernsey
- Guinea
- Guinea-Bissau
  
- Guyana
  
- Haiti
- Heard Island and McDonald Islands
- Honduras
- Hong Kong
  
- Hungary
  
- Iceland
- India
- Indonesia
- Iran
  
- Iraq
  
- Ireland
- Isle of Man
  
- Morocco
- Mozambique
- Myanmar/Burma
  
- Namibia
- Nauru
  
- Nepal
  
- Netherlands
- New Caledonia
- New Zealand
- Nicaragua
  
- Niger
  
- Nigeria
- Niue
  
- Norfolk Island
- Northern Mariana Islands
- North Korea
- North Macedonia
- Norway
- Oman
- Pakistan
  
- Palau
  
- Palestine
- Panama
  
- Sudan
- Suriname
- Svalbard and Jan Mayen
- Sweden
- Switzerland
  
- Syria
  
- Taiwan
- Tajikistan
- Tanzania
- Thailand
  
- The Gambia
  
- Timor-Leste
- Togo
  
- Tokelau
- Tonga
  
- Trinidad and Tobago
- Tunisia
- Turkey
- Turkmenistan
- Turks and Caicos Islands
- Tuvalu
  
- Uganda
- Ukraine

- China
- Christmas Island
- Clipperton
- Cocos (Keeling) Islands
- Colombia
- Comoros
- Congo
- Cook Islands
- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Curaçao
- Cyprus
- Czechia
- Democratic Republic of the Congo
- Denmark
- Israel
- Italy
- Jamaica
- Japan
- Jersey
- Jordan
- Kazakhstan
- Kenya
- Kiribati
- Kosovo
- Kuwait
- Kyrgyzstan
- Laos
- Latvia
- Lebanon
- Lesotho
- Liberia
- Papua New Guinea
- Paraguay
- Peru
- Philippines
- Pitcairn Islands
- Poland
- Portugal
- Puerto Rico
- Qatar
- Réunion
- Romania
- Russia
- Rwanda
- Saint Barthélemy
- Saint Helena
- Ascension and Tristan da Cunha
- Saint Kitts and Nevis
- Saint Lucia
- United Arab Emirates
- United Kingdom
- United States
- United States Minor Outlying Islands
- Uruguay
- US Virgin Islands
- Uzbekistan
- Vanuatu
- Vatican City
- Venezuela
- Vietnam
- Wallis and Futuna
- Western Sahara
- Yemen
- Zambia
- Zimbabwe

\* If you are responding to questions from the perspective of a country other than your country of origin, please indicate it here:

*100 character(s) maximum*

FEAD represents the private waste and resource management industry across Europe .

\* If you are giving your contribution as a civil society organisation or a public administration, please indicate your main area of focus or your area of competence:

*100 character(s) maximum*

FEAD represents the private waste and resource management industry across Europe .

The Commission will publish all contributions to this public consultation. You can choose whether you would prefer to have your details published or to remain anonymous when your contribution is published. **For the purpose of transparency, the type of respondent (for example, 'business association, 'consumer association', 'EU citizen') country of origin, organisation name and size, and its transparency register number, are always published. Your e-mail address will never be published.** Opt in to select the privacy option that best suits you. Privacy options default based on the type of respondent selected

### \* **Contribution publication privacy settings**

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous.

**Anonymous**

Only organisation details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published as received. Your name will not be published. Please do not include any personal data in the contribution itself if you want to remain anonymous.

**Public**

Organisation details and respondent details are published: The type of respondent that you responded to this consultation as, the name of the organisation on whose behalf you reply as well as its transparency number, its size, its country of origin and your contribution will be published. Your name will also be published.

I agree with the [personal data protection provisions](#)

## Part II. General public

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1) Please indicate to which extent you agree with the following concerns as to microplastic pollution.

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know /Not applicable
Microplastics can contain and accumulate hazardous chemicals	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Microplastics are transported over long distance and adsorb and transport other contaminants	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Microplastics are persistent in the environment (they do not biodegrade)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Microplastics harm human health via ingestion and inhalation	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Microplastics harm animal health	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Plants assimilate microplastics	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Microplastics harm the economy	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2) To reduce microplastics pollution, how and at what level should the action be taken?

	Yes	No	I don't know/Not applicable
No action needed	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Voluntary measures	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Legislation	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
International action	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 2.A) Voluntary measures

	Yes	No	I don't know/Not applicable
At citizen level	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
At the level of companies	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
At the level of industry sector	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 2.B) Legislation

	Yes	No	I don't know/Not applicable
At local/regional level	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
At Member State level	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
At EU level	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>

3) To what extent would you agree to buy a product that releases less microplastics, even if it costs more?

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know/Not applicable
Clothing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Carpets, sofas	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Tyres	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Paints	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Product that is painted	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Detergent capsules	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

## Part III. Expert section

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Part III contains questions for which expert knowledge is required, but all types of respondents are welcome to respond. It includes questions on the sources of microplastics pollution being assessed by the European Commission (pre-production pellets, tyre wear particles, synthetic textiles, paints, geotextiles and detergent capsules) and on the policy measures reducing unintentional release of microplastics.

### Part III. A. Pre-production pellets

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4) To what extent would you agree with the following weaknesses on how current systems deal with pellets?

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know/Not applicable
Lack of risk assessment of pellet handling activities by companies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of reporting of estimated pellets releases to the environment	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Unnecessary handling or improper handling protocols by companies	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improper training of workers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improper sealing of transport containers	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Improper storage protocols	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improper transferring protocols	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Lack of independent auditing	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Prevention equipment too expensive	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Lack of economic incentives for companies to address pellet losses	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Please explain

*500 character(s) maximum*

In most European companies, risk assessment on production activities and the various stages of the process chain, including transport and movement, are well developed and have already led to improvements in terms of safety, health and environmental protection.

Even in this field, however, there could be room for improvement, so it would be necessary to study the causes that lead to the dispersion of microplastics into the environment.

5) To what extent would you agree with the following non-regulatory measures improving voluntary schemes?

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know/Not applicable
Industry to prioritise preventive measures	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Clearer public reporting, transparency and tracking of progress	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Independent auditing	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Industry to create a remediation fund to finance the cleaning of spills	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Multi stakeholders' governance	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain

*500 character(s) maximum*

6) To what extent would you agree with the following regulatory measures for pellet loss prevention?

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know /Not applicable
EU legislation setting up a comprehensive system for pellet handling companies	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
International approaches, including for shipping (e.g. loss of containers)	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extended producer responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Please explain

*500 character(s) maximum*

EPR is a policy approach under which producers are given a significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products. The release of microplastics in the environment, in most cases, occurs during the use of the product by the consumer.

The polluter should bear the expenses of carrying out the pollution prevention and control measures, to ensure the environment and the public health, according to the Polluter Pay Principle.

## Part III. B. Tyre wear Particles

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7) To what extent would you agree with the following measures to reduce microplastic emissions from tyres?

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know /Not applicable
Tyre design in order to reduce abrasion	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Legal limit on tyre abrasion	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Labelling of tyres in terms of abrasion	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Requirements on road infrastructure to reduce abrasion	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improve capture and treat road run-off water	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improve road cleaning in high emission hotspots	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Higher fees in Extended Producer Responsibility for less performing tyres	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>
Artificial intelligence and advanced driver assistance systems in vehicles to reduce abrasion	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

## Please explain

500 character(s) maximum

EPR is a policy approach under which producers are given a significant responsibility – financial and/or physical – for the treatment or disposal of post-consumer products. The release of microplastics in the environment, in most cases, occurs during the use of the product by the consumer.

The polluter should bear the expenses of carrying out the pollution prevention and control measures, to ensure the environment and the public health, according to the Polluter Pay Principle.

## Part III. C. Synthetic textiles

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8) During which phase of the life-cycle, microplastics emissions from textiles are the most significant?

	Very significant	Somewhat significant	Very little significant	Completely Insignificant	I don't know/Not applicable
Manufacturing of synthetic fibres, thread, yarn, other raw material for garment production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Garment production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Pre-wash cycles after production	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Wear	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Use phase washing cycles	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use phase drying cycles	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
End of life	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9) To what extent would you agree with the following measures to reduce microplastic emissions specifically from clothing, carpets, fabrics for furniture and similar.

A) During design or production phase

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know/Not applicable
Product design requirements	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Restriction of all synthetic fibres for certain applications	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Restriction of synthetic fibres and fabrics with high releases of microplastics	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emission limit during production	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Emission limit for textile placed on the EU market	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Mandatory prewashing before placing on the market	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Specific waste water treatment in production plants	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

9.B) During use phase

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know /Not applicable
Consumer awareness on microplastics releases e.g. labelling, washing instructions, best practices	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Filter (or other absorbing devices) in washing machines	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulate microplastics releases from professional laundries	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

### 9.C) Transversal policies

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know/Not applicable
Incentivising sustainable textile practices (buying consciously, reducing, sharing, repairing, buying second-hand etc.)	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Include aspects of microplastics in EU ecolabel and Green Public Procurement	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extended producer responsibility	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Develop a database of microplastics release measurements for yarn, fabric, washing condition, fabric age	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain

500 character(s) maximum

### Part III. D. Paints

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10) During which phase of the life-cycle, microplastics emissions from paints are the most significant?

	Very significant	Somewhat significant	Very little significant	Completely insignificant	I don't know/Not applicable
Initial spray painting	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
End of life of painted goods	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

10.A) Wear and tear of paints from:

	Very significant	Somewhat significant	Very little significant	Completely insignificant	I don't know/Not applicable
Boats and ships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Cars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Infrastructures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Roads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

10.B) Maintenance of:

	Very significant	Somewhat significant	Very little significant	Completely insignificant	I don't know/Not applicable
Boats and ships	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Cars	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Infrastructures	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Buildings	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Roads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

11) How much do you agree with the following measures to reduce microplastic pollution due to paints, depending on the application?

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know /Not applicable
Promotion of alternative solutions without paints	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Awareness raising to reduce paint bought but not used	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulate the share of plastic content in paint	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase share of biodegradable plastic in paint	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase application yield (more brush and airless spray to reduce loss at application)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Increase life time of paint	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Increase of preventive and localised maintenance	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Use technologies increasing dust recover, e.g. vacuum blasting methods	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Capture of scrapped road marking (when renovated)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Capture and treat road run-off water	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Include aspects of microplastics in EU ecolabel and Green Public Procurement	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better regulation on dust protection and capture for key industries	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Cleaning of shipyards (dry-docks) prior to re-floating the boats	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Better gypsum waste management in construction and demolition waste with paint	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

Other	<input type="radio"/>					
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Please explain

*500 character(s) maximum*

### Part III. E. Geotextiles

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12) How much do you agree with the following measures to reduce microplastic pollution from geotextiles?

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know/Not applicable
Regulate the type of polymer or fibres used	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Regulate the range of applications in which geotextiles can be used	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote alternative solutions not using geotextiles	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Promote environmentally friendly materials	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Set limits for microplastics emissions by application	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain

*500 character(s) maximum*

13) How much do you agree with the following statements related to the applications of geotextiles?

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know/Not applicable
Non-woven geotextiles can be used to protect coasts from erosion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Woven geotextiles can be used to protect coasts from erosion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Non-woven geotextiles can be used to build roads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Woven geotextiles can be used to build roads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Geotextiles made with natural fibres can be used to protect coasts from erosion	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
Geotextiles made with natural fibres can be used to build roads	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>
There are no alternatives to geotextiles for drainage	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>

## Part III. F. Detergent laundry and automatic dishwasher capsules

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Some of these capsules have a plastic shell around the detergent that consists of polyvinyl alcohol (PVA), a synthetic polymer, intended to dissolve in water, but that may not fully biodegrade, leaving microplastics in the environment. The [Detergents Regulation](#), currently under revision, already regulates certain aspects of biodegradability of these capsules.

14) Please provide any information regarding this shell and its biodegradability in waste water and its treatment, including possible releases of microplastics.

*2500 character(s) maximum*

15) If there would be sufficient evidence about the microplastics emissions of detergent capsules, to which extent would you agree with the following measures?

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know/Not applicable
Monitoring of PVA in waste water treatment plants	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Establish a protocol to assess the biodegradability of dissolvable capsule shells in real life conditions	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Improve waste water treatment plants	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Restrict non-biodegradable water-soluble shells for capsules	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Extended Producer Responsibility	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>
Consumers awareness raising, e.g. labelling	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Incentivise the use of alternative, biodegradable materials	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Please explain

*500 character(s) maximum*

Part IV. All addressed sources: pellets, synthetic textiles, tyres, geotextiles, detergent capsules and paints

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16) How much do you agree with the following measures to reduce microplastic pollution in general?

	Completely agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Completely disagree	I don't know /Not applicable
Common system to monitor and report microplastics releases along the life cycle	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Specific waste water treatments in urban waste water treatment plants	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Specific waste water treatments in recycling plants	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
International agreement	<input type="radio"/>	<input checked="" type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Other	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

17) Please provide any additional information regarding microplastics and the reduction of emissions, in particular for paints, geotextiles and detergent capsules?

*2500 character(s) maximum*

18) Please provide any information if a significant fraction of the release might be in form of very fine particles (smaller than 1 micron, also called nanoplastics), either in general, either for one of the specific sources, and which consequences that might have on possible measures?

*2500 character(s) maximum*

An additional problem comes from the use of biodegradable and compostable plastics. There is the risk that microplastics originating from compostable and biodegradable plastics are still present in the compost at the end of the composting process. Indications that microplastics are released during the composting of biodegradable/compostable plastics or are a relevant intermediate product during biodegradation are provided by several studies (Wei X-F, Bohlén M, Lindblad C, Hedenqvist M, Hakonen A (2021) Microplastics generated from a biodegradable plastic in freshwater and seawater. *Water Res* 198:117123 - European Environment Agency (2020) Biodegradable and compostable plastics – challenges and opportunities - Melanie Braun et al. (2021), Plastic in compost: Prevalence and potential input into agricultural and horticultural soils).

Biodegradable microplastics may have similar properties as conventional microplastics in terms of adsorption of pollutants in the environment (Zuo L-Z, Li HX, Lin L, Sun YX, Diao ZH, Liu S, Zhang ZY, Xu XR (2019) Sorption and desorption of phenanthrene on biodegradable poly (butylene co-terephthalate) microplastics. *Chemosphere* 215:25–32 - Wang C., Yu J., Lu Y, Hua D., Wang X., Zou X. (2021), Biodegradable microplastics (BMPs): a new cause for concern?, *Environmental Science and Pollution Research* (2021) 28:66511 - 66518 ).

It should also be noted that microplastics originating from biodegradable plastics ending up in final composts may persist in the soil for long times since testing conditions for biodegradation e.g. in EN 13432 do not reflect environmental conditions in agricultural soils (e.g. cold temperatures, water or nutrient deficiency). It has been demonstrated that these plastics may withstand biodegradation for a similar period as conventional plastics under environmental conditions.

This risk of microplastic generation is currently not prevented by the design of standards such as EN 13432, which is often applied to confirm compostability and biodegradability for packaging made from compostable or biodegradable plastics.

## Contact

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