EU SURVEY on microplastics 2022

Fields marked with * are mandatory.

Introduction

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.

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**Part I.**

**About you**

* 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
  Oliver

* Surname
  LOEBEL
Email (this won’t be published)

oliver.loebel@eureau.org

Organisation name

255 character(s) maximum

EurEau

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.

- Afghanistan
- Åland Islands
- Albania
- Algeria
- American Samoa
- Andorra
- Angola
- Anguilla
- Antarctica
- Antigua and Barbuda
- Argentina
- Armenia
- Aruba
- Australia
- Austria
- Azerbaijan
- Bahamas
- Bahrain
- Bangladesh
- Barbados
- Belarus
- Belgium
- Belize
- Djibouti
- Dominica
- Dominican Republic
- Ecuador
- Egypt
- El Salvador
- Equatorial Guinea
- Eritrea
- Estonia
- Eswatini
- Ethiopia
- Falkland Islands
- Faroe Islands
- Fiji
- Finland
- France
- French Guiana
- French Polynesia
- French Southern and Antarctic Lands
- Gabon
- Georgia
- Germany
- Ghana
- Libya
- Liechtenstein
- Lithuania
- Luxembourg
- Macau
- Madagascar
- Malawi
- Malaysia
- Maldives
- Mali
- Malta
- Marshall Islands
- Martinique
- Mauritania
- Mauritius
- Mayotte
- Mexico
- Micronesia
- Moldova
- Monaco
- Mongolia
- Montenegro
- Montserrat
- Saint Martin
- Saint Pierre and Miquelon
- Saint Vincent and the Grenadines
- Samoa
- San Marino
- São Tomé and Príncipe
- Saudi Arabia
- Senegal
- Serbia
- Seychelles
- Sierra Leone
- Singapore
- Sint Maarten
- Slovakia
- Slovenia
- Solomon Islands
- Somalia
- South Africa
- South Georgia and the South Sandwich Islands
- South Korea
- South Sudan
- Spain
- Sri Lanka
If you are responding to questions from the perspective of a country other than your country of origin, please indicate it here:

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

<table>
<thead>
<tr>
<th>Concern</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don’t know /Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Microplastics can contain and accumulate hazardous chemicals</td>
<td></td>
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</tr>
<tr>
<td>Microplastics are transported over long distance and adsorb and transport other contaminants</td>
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<tr>
<td>Microplastics are persistent in the environment (they do not biodegrade)</td>
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<tr>
<td>Microplastics harm human health via ingestion and inhalation</td>
<td></td>
<td></td>
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<td></td>
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<tr>
<td>Microplastics harm animal health</td>
<td></td>
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<tr>
<td>Plants assimilate microplastics</td>
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<tr>
<td>Microplastics harm the economy</td>
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<tr>
<td>Other</td>
<td></td>
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</tr>
</tbody>
</table>
Please explain

500 character(s) maximum

Microplastics jeopardise the circular economy options of waste water operators by contaminating sewage sludge and, potentially, certain recovered materials.

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

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>I don't know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>No action needed</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Voluntary measures</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Legislation</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>International action</td>
<td>☐</td>
<td></td>
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<tr>
<td>Other</td>
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<td></td>
<td></td>
</tr>
</tbody>
</table>

2.A) Voluntary measures

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>I don't know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>At citizen level</td>
<td>☐</td>
<td></td>
<td></td>
</tr>
<tr>
<td>At the level of companies</td>
<td>☐</td>
<td></td>
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<tr>
<td>At the level of industry sector</td>
<td>☐</td>
<td></td>
<td></td>
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</tbody>
</table>

2.B) Legislation

<table>
<thead>
<tr>
<th></th>
<th>Yes</th>
<th>No</th>
<th>I don't know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>At local/regional level</td>
<td>☐</td>
<td></td>
<td></td>
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<tr>
<td>At Member State level</td>
<td>☐</td>
<td></td>
<td></td>
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<tr>
<td>At EU level</td>
<td>☐</td>
<td></td>
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</tbody>
</table>
3) To what extent would you agree to buy a product that releases less microplastics, even if it costs more?

<table>
<thead>
<tr>
<th>Product</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don’t know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clothing</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Carpets, sofas</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Tyres</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Paints</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Product that is painted</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Detergent capsules</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Other</td>
<td>☐</td>
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</tbody>
</table>
Part III. Expert section

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

<table>
<thead>
<tr>
<th>Weakness</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don’t know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lack of risk assessment of pellet handling activities by companies</td>
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<tr>
<td>Lack of reporting of estimated pellets releases to the environment</td>
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<tr>
<td>Unnecessary handling or improper handling protocols by companies</td>
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<tr>
<td>Improper training of workers</td>
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<tr>
<td>Improper sealing of transport containers</td>
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<tr>
<td>Improper storage protocols</td>
<td></td>
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<tr>
<td>Improper transferring protocols</td>
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<tr>
<td>Lack of independent auditing</td>
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<tr>
<td>Prevention equipment too expensive</td>
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<tr>
<td>Lack of economic incentives for companies to address pellet losses</td>
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<tr>
<td>Other</td>
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</tbody>
</table>
Absence of clear financial responsibility of pellet producers for the cost of cleaning up (accidental) releases to the environment. Particles are not only released when cleaning the installations, but also with the water of the industrial process because the extrusion machines for modelling plastic parts use pressurised water, which is expected to contain a large amount of microplastics. How is this water from the manufacturing process collected/ treated?
5) To what extent would you agree with the following non-regulatory measures improving voluntary schemes?

<table>
<thead>
<tr>
<th>Measures</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don’t know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry to prioritise preventive measures</td>
<td></td>
<td></td>
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<tr>
<td>Clearer public reporting, transparency and tracking of progress</td>
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<tr>
<td>Independent auditing</td>
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<tr>
<td>Industry to create a remediation fund to finance the cleaning of spills</td>
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<tr>
<td>Multi stakeholders’ governance</td>
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<tr>
<td>Other</td>
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</tbody>
</table>
Please explain

500 character(s) maximum
6) To what extent would you agree with the following regulatory measures for pellet loss prevention?

<table>
<thead>
<tr>
<th>Measure</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don’t know /Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>EU legislation setting up a comprehensive system for pellet handling companies</td>
<td>✗</td>
<td></td>
<td></td>
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<tr>
<td>International approaches, including for shipping (e.g. loss of containers)</td>
<td>✗</td>
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<tr>
<td>Extended producer responsibility</td>
<td>✗</td>
<td></td>
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<td></td>
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<td></td>
</tr>
<tr>
<td>Other</td>
<td>✗</td>
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</tbody>
</table>
Please explain

500 character(s) maximum

Independent auditing must become compulsory.

Part III. B. Tyre wear Particles
7) To what extent would you agree with the following measures to reduce microplastic emissions from tyres?

<table>
<thead>
<tr>
<th>Measure</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don’t know /Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tyre design in order to reduce abrasion</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Legal limit on tyre abrasion</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Labelling of tyres in terms of abrasion</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Requirements on road infrastructure to reduce abrasion</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
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<tr>
<td>Improve capture and treat road run-off water</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Improve road cleaning in high emission hotspots</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Higher fees in Extended Producer Responsibility for less performing tyres</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
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<tr>
<td>Artificial intelligence and advanced driver assistance systems in vehicles to reduce abrasion</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
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<tr>
<td>Other</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</tr>
</tbody>
</table>
Reduce speed and limit traffic in high emission hotspots.

Part III. C. Synthetic textiles

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

<table>
<thead>
<tr>
<th>Phase of Life-Cycle</th>
<th>Very Significant</th>
<th>Somewhat Significant</th>
<th>Very Little Significant</th>
<th>Completely Insignificant</th>
<th>I don't know/Not Applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manufacturing of synthetic fibres, thread, yarn, other raw material for garment production</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Garment production</td>
<td></td>
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<td></td>
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</tr>
<tr>
<td>Pre-wash cycles after production</td>
<td></td>
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<tr>
<td>Wear</td>
<td></td>
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<tr>
<td>Use phase washing cycles</td>
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<tr>
<td>Use phase drying cycles</td>
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<tr>
<td>End of life</td>
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</tr>
</tbody>
</table>
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

<table>
<thead>
<tr>
<th>Measure</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don’t know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Product design requirements</td>
<td></td>
<td></td>
<td></td>
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<td></td>
<td></td>
</tr>
<tr>
<td>Restriction of all synthetic fibres for certain applications</td>
<td></td>
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</tr>
<tr>
<td>Restriction of synthetic fibres and fabrics with high releases of microplastics</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Emission limit during production</td>
<td></td>
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<tr>
<td>Emission limit for textile placed on the EU market</td>
<td></td>
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<tr>
<td>Mandatory prewashing before placing on the market</td>
<td></td>
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<tr>
<td>Specific waste water treatment in production plants</td>
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</tbody>
</table>
9.B) During use phase

<table>
<thead>
<tr>
<th></th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don’t know /Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer awareness on microplastics releases e.g. labelling, washing instructions, best practices</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Filter (or other absorbing devices) in washing machines</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Regulate microplastics releases from professional laundries</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
### 9.C) Transversal policies

<table>
<thead>
<tr>
<th>Policy</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don't know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incentivising sustainable textile practices (buying consciously, reducing, sharing, repairing, buying second-hand etc.)</td>
<td>![Circle]</td>
<td>![Circle]</td>
<td>![Circle]</td>
<td>![Circle]</td>
<td>![Circle]</td>
<td>![Circle]</td>
</tr>
<tr>
<td>Include aspects of microplastics in EU ecolabel and Green Public Procurement</td>
<td>![Circle]</td>
<td>![Circle]</td>
<td>![Circle]</td>
<td>![Circle]</td>
<td>![Circle]</td>
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<tr>
<td>Extended producer responsibility</td>
<td>![Circle]</td>
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<td>![Circle]</td>
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<tr>
<td>Other</td>
<td>![Circle]</td>
<td>![Circle]</td>
<td>![Circle]</td>
<td>![Circle]</td>
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</tr>
</tbody>
</table>
Please explain

500 character(s) maximum

A systemic change of textile markets is necessary. Moving away from fast fashion towards sustainability requires consumer awareness (labelling), sustainable production methods and better products, efficient recycling and EPR to internalize environmental and health-related mitigation costs in the product prize.

Part III. D. Paints

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

<table>
<thead>
<tr>
<th></th>
<th>Very significant</th>
<th>Somewhat significant</th>
<th>Very little significant</th>
<th>Completely insignificant</th>
<th>I don’t know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Initial spray painting</td>
<td></td>
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<tr>
<td>End of life of painted goods</td>
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</tbody>
</table>

10.A) Wear and tear of paints from:

<table>
<thead>
<tr>
<th></th>
<th>Very significant</th>
<th>Somewhat significant</th>
<th>Very little significant</th>
<th>Completely insignificant</th>
<th>I don’t know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boats and ships</td>
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<tr>
<td>Cars</td>
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<tr>
<td>Infrastructures</td>
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<tr>
<td>Buildings</td>
<td></td>
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<tr>
<td>Roads</td>
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</tbody>
</table>

10.B) Maintenance of:

<table>
<thead>
<tr>
<th></th>
<th>Very significant</th>
<th>Somewhat significant</th>
<th>Very little significant</th>
<th>Completely insignificant</th>
<th>I don’t know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Boats and ships</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Cars</td>
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<tr>
<td>Infrastructures</td>
<td></td>
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<td></td>
</tr>
<tr>
<td>Buildings</td>
<td></td>
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<tr>
<td>Roads</td>
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</tbody>
</table>
11) How much do you agree with the following measures to reduce microplastic pollution due to paints, depending on the application?

<table>
<thead>
<tr>
<th>Measure</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don’t know /Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Promotion of alternative solutions without paints</td>
<td></td>
<td></td>
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<tr>
<td>Awareness raising to reduce paint bought but not used</td>
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<tr>
<td>Regulate the share of plastic content in paint</td>
<td></td>
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<tr>
<td>Increase share of biodegradable plastic in paint</td>
<td></td>
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<tr>
<td>Increase application yield (more brush and airless spray to reduce loss at application)</td>
<td></td>
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<td></td>
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<tr>
<td>Increase life time of paint</td>
<td></td>
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<tr>
<td>Increase of preventive and localised maintenance</td>
<td></td>
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<tr>
<td>Use technologies increasing dust recover, e.g. vacuum blasting methods</td>
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<tr>
<td>Capture of scrapped road marking (when renovated)</td>
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<tr>
<td>Capture and treat road run-off water</td>
<td></td>
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</tr>
<tr>
<td>Include aspects of microplastics in EU ecolabel and Green Public Procurement</td>
<td></td>
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<tr>
<td>Better regulation on dust protection and capture for key industries</td>
<td></td>
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<tr>
<td>Cleaning of shipyards (dry-docks) prior to re-flooting the boats</td>
<td></td>
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<tr>
<td>Better gypsum waste management in construction and demolition waste with paint</td>
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<tr>
<td>Other</td>
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</tr>
</tbody>
</table>
Part III. E. Geotextiles
12) How much do you agree with the following measures to reduce microplastic pollution from geotextiles?

<table>
<thead>
<tr>
<th>Measure</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don’t know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Regulate the type of polymer or fibres used</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Regulate the range of applications in which geotextiles can be used</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Promote alternative solutions not using geotextiles</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Promote environmentally friendly materials</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Set limits for microplastics emissions by application</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Other</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>
Please explain

500 character(s) maximum
## 13) How much do you agree with the following statements related to the applications of geotextiles?

<table>
<thead>
<tr>
<th>Statement</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don’t know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-woven geotextiles can be used to protect coasts from erosion</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Woven geotextiles can be used to protect coasts from erosion</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Non-woven geotextiles can be used to build roads</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Woven geotextiles can be used to build roads</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Geotextiles made with natural fibres can be used to protect coasts from erosion</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Geotextiles made with natural fibres can be used to build roads</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>There are no alternatives to geotextiles for drainage</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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</table>
Part III. F. Detergent laundry and automatic dishwasher capsules

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.

To the best of our knowledge, there is currently no information available. PVA has not been identified in waste water (treatment plants), neither as a fragment nor dissolved.
15) If there would be sufficient evidence about the microplastics emissions of detergent capsules, to which extent would you agree with the following measures?

<table>
<thead>
<tr>
<th>Measure</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don’t know/Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Monitoring of PVA in waste water treatment plants</td>
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</tr>
<tr>
<td>Establish a protocol to assess the biodegradability of dissolvable capsule shells in real life conditions</td>
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<tr>
<td>Improve waste water treatment plants</td>
<td></td>
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<tr>
<td>Restrict non-biodegradable water-soluble shells for capsules</td>
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<td></td>
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<tr>
<td>Extended Producer Responsibility</td>
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<tr>
<td>Consumers awareness raising, e.g. labelling</td>
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<tr>
<td>Incentivise the use of alternative, biodegradable materials</td>
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<tr>
<td>Other</td>
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</tbody>
</table>
If a significant problem was identified, it would be absurd to ask WWTPs for extra treatment so that unsustainable products can stay on the market. Art. 191.2 TFEU calls for precautionary measures. We have no data on detergent capsules degrading into microplastics or being completely dissolved.

Part IV. All addressed sources: pellets, synthetic textiles, tyres, geotextiles, detergent capsules and paints
16) How much do you agree with the following measures to reduce microplastic pollution in general?

<table>
<thead>
<tr>
<th>Measure</th>
<th>Completely agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Completely disagree</th>
<th>I don't know /Not applicable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common system to monitor and report microplastics releases along the life cycle</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Specific waste water treatments in urban waste water treatment plants</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Specific waste water treatments in recycling plants</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>International agreement</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
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<tr>
<td>Other</td>
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</tbody>
</table>
Please explain

500 character(s) maximum

The sewer system is only one out of many pathways and WWTPs remove up to 99% of microplastics. Extra treatment will only slightly reduce overall release into the environment, but come with a significant financial and environmental burden.

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

We do not have much information about the load of microplastics coming to waste water treatment plants from paints or geotextiles and even less so from detergent capsules. We expect that all proposed measures are based on a sound cost-benefit analysis including the costs and environmental impacts of mitigation measures.

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

Research on nanoparticles is still in its infancy and very few data are available. It can be expected that a part of the microplastics released in the environment break down into nano-particles over time.

Contact

ENV-B01-ARES@ec.europa.eu