



EPR as an instrument to tackle microplastics pollution (1)



27 January 2021, 14:00 – 16:00 CET
Online Event

Hosted by MEP Franc Bogovič

Chair of the “Bioeconomy” Working Group of the European Parliament Intergroup on
“Climate Change, Biodiversity and Sustainable Development”

Speakers:

- **MEP Franc Bogovič**,
- **Rozalina Petrova**, Member of Cabinet of Commissioner on Environment, Oceans and Fisheries, European Commission
- **Jürgen Bertling**, Business Development Environment, Deputy Head of Department Sustainability and Participation, Fraunhofer Institute for Environmental Safety, and Energy Technology Umsicht
- **Fazilet Cinaralp**, Secretary General, European Tyre & Rubber Manufacturers Association
- **Anders Finnson**, Senior Environmental Advisor, Svenskt Vatten, representing EurEau

Welcome Remarks

MEP Franc Bogovič

“There is a growing international determination to diminish the use of plastics at all stages of products’ life cycles.”

To start off the event, MEP Franc Bogovič introduced the topic at hand: plastics, which have benefitted multiple sectors over the years, have become an **important source of environmental damage**. This is especially due to the fact that most plastics are **single-use** and **non-biodegradable**. Moreover, **only 9% of all plastics ever manufactured have been recycled**. Microplastics especially have been proven to have profound detrimental effects on not only the environment, but also on human health and the economy, argued Mr. Bogovič. Consequently, there is a **growing international determination** to consider the effects of plastics at all stages of their life cycles and diminish their overall use. The European Commission has already partly addressed the issue of microplastics in past strategies but drastically reducing single-use plastics consumption should also be an objective for the EU. Current legislations need to be improved to be able to **better consider the environmental and health impacts of plastics**. Minimum requirements in products regulation need to be set to diminish the emission of microplastics, especially in sectors such as tyres, textiles, and paint production. Furthermore, final plastic waste needs to be properly disposed of, at a global level.

Introductory Remarks

Rozalina Petrova, Member of Cabinet of Commissioner on Environment, Oceans and Fisheries, European Commission

“Extended Producer Responsibility (EPR) requirements ensure the proper waste management of plastics and are expected to stimulate the production of more sustainable products.”

During her intervention, Ms. Rozalina Petrova presented the views, actions and plans of the European Commission when it comes to the plastics sector. Specifically, Ms. Petrova highlighted the duality of the situation; **plastics have been useful for society for a long time, but also have negative impacts that need to be addressed properly.** In the last few years, the European Commission has put in place **multiple measures and legislations** to stop the leakage of macroplastics which consequently produce microplastics. The **Single-Use Plastics Directive** is a great example of such a measure and is expected to be successfully implemented this year. Moreover, **Extended Producer Responsibility (EPR) requirements ensure the proper waste management of plastics and are expected to stimulate the production of more sustainable products.** The European Commission is committed to take further measures in the future to address the sustainability challenges of plastics and to improve waste management. Ms. Petrova underlined the necessity of **raising awareness and addressing pressing issues** such as littering and improper plastic waste management, unintentional release of plastics by tyre and textile sectors as well as proper labelling standards. Finally, Ms. Petrova highlighted the need for **reliable scientific data** on plastics and microplastics, as well as the key role of **innovation and technological developments**, while further stressing the importance of **international cooperation.**

Keynote address: plastic emissions – a challenge for developed countries?

Jürgen Bertling, Business Development Environment, Deputy Head of Department Sustainability and Participation, Fraunhofer Institute for Environmental Safety, and Energy Technology Umsicht

“In Europe, losses in macroplastics reach 1 kg per person per year while losses in microplastics are estimated at 3 kg per person per year.”

Mr. Jürgen Bertling presented **plastic emissions as a challenge for European countries.** To begin with, Mr. Bertling highlighted **the diversity of the plastic emissions’ sources**, alongside the definition of microplastics; since their discovery in the 1970s, microplastics have been

defined by their size. Fraunhofer Umsicht, which Mr. Bertling represented, proposed to use **biodegradability as a benchmark** to better assess plastic emissions and efficiently address their detrimental effects. Unfortunately, more scientific data is needed to implement and use this method. Mr. Bertling also presented multiple studies conducted in Germany and other European countries about microplastics loss estimations. In Europe, losses in macroplastics reach 1 kg per person per year while losses in microplastics are estimated at 3 kg per person per year. Moreover, Mr. Bertling presented data on the sources, shares and transfer of microplastics. Using available scientific evidence, Mr. Bertling shared recommendations to reduce microplastics emissions and highlighted **the negative effects of plastics emissions on building an efficient circular economy**.

Microplastics generation: how to tackle tyre particles in the environment

Fazilet Cinaralp, Secretary General, European Tyre & Rubber Manufacturers Association

“Effectively tackling TRWP requires a comprehensive and balanced approach that takes into account both key tyre requirements as well as all major factors and stakeholders relevant for the tyre use.”

Representing ETRMA, Ms. Fazilet Cinaralp presented the sustainability challenge created by **tyre and road wear particles (TRWP)** which are debris formed by the friction between tyres and roads. External factors such as **driving behaviour, weather conditions** and **vehicle characteristics** greatly influence TRWP levels. Therefore, it is essential to address this challenge through a holistic, multi-sectorial approach. Furthermore, Ms. Cinaralp highlighted the **significant knowledge gaps** that still exist when it comes to the identification, distribution and impacts of TRWP. Effectively tackling TRWP requires a **comprehensive and balanced approach** that takes into account multiple key tyre requirements as well as all major factors and stakeholders relevant for TRWP generation and mitigation. An example of such an initiative is the **European TRWP Platform**, which creates dialogue between many stakeholders such as tyre makers, research institutes, civil society, other sectors related to

mobility (e.g. vehicle and road builders) and EU institutions. Also during her presentation, Ms. Cinaralp shed focus on the outcomes of the first year of activities of the European TRWP Platform and discussed future measures and projects. To conclude her intervention, Ms. Cinaralp stated that the EU tyre sector remains open to **further dialogue and cooperation** with legislators and stakeholders.

Microplastics capture: microplastic sampling in wastewater and their capture at wastewater treatment plant level

Anders Finnson, Senior Environmental Advisor, Svenskt Vatten, representing EurEau

“Pushing for additional removal requirements for WWTPs is not sustainable. With an 80-95% microplastics’ removal rate, WWTPs are already highly efficient. Instead, solutions need to address microplastic leakages in stormwaters by holding polluters accountable.”

Mr. Anders Finnson’s intervention focused on two Swedish studies conducted on microplastic capture in the wastewater treatment plants (WWTP) of Malmö and Gothenburg (Ryaverket) and Stockholm. The studies aimed at gaining a better understanding of **microplastics’ flows in the wastewater management cycle** in Swedish urban waters and observed the mass concentration of microplastics in **wastewaters, sludge and sludge-fertilized agricultural lands** (over 35 years). The results showed that the WWTPs were able to extract more than 99% of microplastics (10-500µm) from the incoming wastewater. Europe-wide, WWTPs are equally effective in removing microplastics, with a **removal rate of 80-95%**, Mr. Finnson praised. In agricultural land using sludge as fertilizer, the findings suggested a **microplastic concentration of 0.42g/kg of dry matter** or five times less than allowed by the **European Fertilising Products Regulation**, according to Mr. Finnson. In addition, using sludge as a fertilizer for agricultural land does not seem to cause an elevated microplastic concentration in soils, the studies concluded. **As highlighted, the microplastic load from stormwater is 100 times great than the one from WWTP effluents.** Solutions to remove microplastics from our waters should thus not necessarily include additional

removal requirement for WWTPs, as these are already highly efficient, Mr. Finnsen argued. Instead, more **source control systems** need to be put in place, to **monitor microplastic leakages** in stormwater and hold **polluters accountable** through **EPR** initiatives.

Discussion with the audience, moderated by Françoise Bonnet, Secretary General, ACR+

During the discussion, **Ms. Françoise Bonnet** asked the speakers to explain what some of the **most efficient policy instruments** would be to address microplastics' pollution. To begin with, Mr. Bertling highlighted the importance of **source control instruments**, in particular, to monitor microplastics pollution in **stormwaters** which are not being treated by a wastewater plant. **Innovative eco-design measures** of plastic products, such as tyres, shoes' soles or textiles, are also of utmost relevance, Mr. Bertling argued. Ms. Cinaralp explained that any action to reduce microplastics would have to be **embedded in a larger policy framework**, combining various policy instruments. When asked about the tyre industry's responsibility in microplastics pollution, Ms. Cinaralp pointed out that while tyre manufacturers are directly responsible for the design of tyres, many other factors, including maintenance of vehicles, road infrastructures and driving behaviours, are not under the tyre industry's control. In this regard, Ms. Cinaralp raised her concerns about **EPR schemes' adequacy in clearly identifying all responsible producers** and called for action plans to involve all stakeholders in tackling microplastics pollution from tyres. Mr. Finnsen also argued in favour of a **multiple-policy instrument action plan**, but further stressed the **importance of both EPR schemes and raising consumer awareness** to help reduce microplastics' pollution at its source. Ms. Petrova also expressed the European Commission's stance on raising consumer awareness, stressing that while it can be relevant, solutions such as **EPR schemes would be much more effective in tackling microplastics' pollution**. Ms. Petrova agreed that citizens have to take part in waste collection and recycling systems, but also argued that this can only occur if **properly designed and convenient systems are being put in place**. Thus, it is up to **public authorities** to establish a well-functioning system through **EPR schemes**.

The panel also agreed on the need for more **up-to-date research on plastics' pollution** derived from other industries, such as the textile sector, and on the biodegradation rate of plastic, rubber and other polymers. To that, MEP Mr. Bogovič and Mr. Finnson insisted on the importance of **collecting and sharing knowledge** at European level. Finally, Ms. Bonnet reminded the audience of the **increasing responsibility of the textile industry** in microplastics' pollution and expressed her hope for it to be addressed during the follow-up of the seminar.

Closing remarks

MEP Franc Bogovič

In his closing remarks, hosting MEP Mr. Bogovič welcomed the panel's overall consensus on the need for cross-sector collaboration and the need for having a holistic approach on tackling microplastics' pollution. Mr. Bogovič also noted the need for development of best practices prior to legislation. More generally, Mr. Bogovič expressed his optimism about the EU's Green Deal policy developments and relevant circular economy ambitions, and voiced his eagerness to continue the discussions on EPR and microplastics on the 24th of February follow-up event, focusing specifically on EPR as an instrument to tackle microplastics' pollution.