PFAS: Challenges and Solutions

29 November 2021, 14:00 – 16:00 CET

Online Event

Hosted by MEP Christophe Hansen

Co-Chair of the "Water Management" Working Group of the European Parliament Inter-group on "Climate Change, Biodiversity and Sustainable Development"

Speakers:

- **MEP Christophe Hansen**
- **Valentina Bertato**, Policy Officer at B2 Unit on Sustainable Chemicals,DG ENV, European Commission
- **Bjorn Hansen**, Executive Director, ECHA
- **Nicolas Robin**, Director, Fluoropolymers Products' Group, Plastics Europe
- **Dr. Claudia Castell-Exner**, President, EurEau
- **Tatiana Santos**, Policy Manager for Chemicals and Nanotechnology, EEB
- **Marieke Schouten**, Rapporteur on the Zero Pollution Action Plan, Committee of the Re gions

Due to his impossibility to participate to the live event, MEP Christophe Hansen presented his opening remarks via video-message.

Opening Remarks

MEP Christophe Hansen

> ***"We all agree that we have to limit the use of PFAS as much as possible, by allowing their use only when no other alternatives are available"***

MEP Mr. Christophe Hansen welcomed the speakers and the audience to the event by highlighting the importance of discussing about PFAS regulation. Restricting the use of PFAS, he stated, has become necessary in light of the increasing related environmental scandals in, among others, Belgium, Italy and Germany. Indeed, as PFAS accumulate in ground and drinking water resources affecting human health and the environment, **environmental policies are necessary** to regulate their use. At the same time, MEP Mr. Hansen recognised that **banning PFAS completely will not be an easy task**: these chemicals are being constantly used in a wide variety of ways, including in thousands of items of daily use. PFAS, he continued, are also used in many products which are urgently needed in order to achieve our climate goals, for example in photovoltaic panels, electric cars and so on. It is obvious, according to MEP Mr. Hansen, that the EU has to **limit the use of PFAS as much as possible**. However, it is important to do so **without limiting access to essential products and applications**. Agreeing with the EU Commission approach, MEP Mr. Hansen concluded by stating that it is necessary to identify the critical uses of PFAS for the society and allow them only if no other alternative is available.

Keynote Intervention

Ms. Valentina Bertato, Policy Officer at B2 Unit on Sustainable Chemicals, DG ENV, European Commission

"The Commission addresses PFAS aiming at their complete phase out, except when their use is proved to be essential for society"

Ms.Valentina Bertato presented the EU Commission's views, actions and plans addressing PFAS. She started by giving a full overview of EU action throughout time: for many years, **PFAS have been addressed insufficiently by EU regulation** (i.e. by the EU REACH), leaving many of these chemicals in circulation because of regrettable substitution with substances belonging to the same class. Thus, in June 2019, following scientific concerns and political pressure, **the Council** asked to: **restrict PFAS as a class**; and to **eliminate all "non essential uses" of these chemicals**. Starting from this, and following the Green Deal, in October 2020 the Commission published the Chemical Strategy for Sustainability, presenting, among others, a detailed document on action on PFAS. Faced the many cases of contamination of soil and water — included drinking water, and the high number of affected people; in the Strategy the Commission adopts a position which aims at a **complete phase out of the use of PFAS, except when their use is proved to be essential for society**.

Ms. Bertato emphasised the importance of the Chemical Strategy to contrast PFAS, but she also introduced the importance of other actions, such as the **EU commitment of defining criteria for essential uses**. This approach is extremely important with regard to PFAS, according to Ms. Bertato, since they are substances used for both non essential and essential uses.

Furthermore, she stated that while the main Commission objective is to prevent PFAS, **relying on chemical legislation is not sufficient**: indeed, these actions will take time; exceptions to the ban will still be needed; and contaminations have already happened. These are the reason why, she explains, in the PFAS Action Plan within the Chemical Strategy, the Commission commits to use all legislative and non legislative tools, throughout all PFAS life stages — from manufacture to use, to end of life.

Finally, Ms. Bertato highlighted the Commission's actions to contrast PFAS through **legislation on water and soil**. On the one hand, the Drinking Water Directive, which addresses PFAs as a group, will be transposed into national law by 2023. Ms. Bertato emphasised once again that **the class approach undertaken by the Directive is essential to prevent future damages**, considering the fact that some PFAS used lately might have not yet contaminated the waters. It

would be thus useless to limit restrictions to the chemicals found now. Secondly, the Commission also recognises that soil pollution is the main cause for water contamination: for this reason it released a Soil Strategy, which speaks about preventing the emissions of hazardous substances into the soil — mentioning PFAS. It is then committed to publish a Soil Health Law, and it will consider proposing legally binding provisions, identify contaminant sites and set up an inventory for them.

Ms. Bertato concluded by expressing her **high concern** on the numerous contaminated sites; and she called for the **necessity to apply the polluter pays principle** in order to avoid facing high economic costs of remediation to PFAS contaminations.

Panel Discussion

Speakers that took part in the panel discussion:

- ***Bjorn Hansen,*** *Executive Director, ECHA*
- ***Nicolas Robin,*** *Director, Fluoropolymers Products' Group, Plastics Europe*
- ***Dr. Claudia Castell-Exner,*** *President, EurEau*
- ***Tatiana Santos****, Policy Manager for Chemicals and Nanotechnology, EEB*

To open the discussion, panelists were asked specific questions regarding challenges presented by PFAS and possible solutions identified by their organizations.

Mr. Bjorn Hansen, on behalf of ECHA, explained why it is important to talk about PFAS today, and especially what ECHA is doing to address the topic. ECHA, he explained, has a duty to follow up EU policy concerns on PFAS, in order to assess whether the requested policy action is justifiable from a scientific perspective. Secondly, ECHA is itself concerned about the persistency of PFAS and the difficulty of cleaning the environment after chemical contamination: he stressed that problems related to PFAS do not disappear by cutting emissions, since they continue to intoxicate the environment. He then stated that in February 2022, ECHA will submit its inputs to Member States restrictions, coming out with a proposal: ECHA will closely support Member States in preparing PFAS-related restrictions.

Finally, Mr. Hansen concluded that ECHA is willing to work on PFAS and asks for **transparency and inputs** from the part of other stakeholders, in order to provide exact scientific and technical information.

Representing the Fluoropolymers Products' Group of Plastics Europe, **Mr. Nicolas Robin** explained how the plastic industry is reacting to the growing global concern regarding PFAS. As Fluoropolymers manufacturer, he stated, the organization considers that **any regulation on PFAS should be proportionate and scientifically based**. Secondly, the **specificity and differentiation of Fluoropolymers** with regard to the wider PFAS group have to be taken into account. According to Mr. Robin, it would not be scientific to consider PFAS as one group of substances: since Fluoropolymers have **specific physical chemical properties** which differ from all other PFAS, he stressed that it might be necessary to **identify subgroups** within the general PFAS category. More into details, most Fluoropolymers have been proved to meet the OECD criteria of "polymers of low concern"; presenting no significant toxicity of concern and not being able to degradate into other PFAS. Moreover, he emphasised that **Fluoropolymers have unique properties** which are not present in other polymers: thus, **they are irreplaceable** when it comes to achieve ambitious targets such as those of the EU Green Deal and the Digitalisation of European Economy. On this regard, **the economy needs to make use of Fluoropolymers**, for example in: constructing semiconductors, renewable energy, low emission transportation technology, surgical devices and lithium and nitrogen batteries. At present, for these purposes and others, Fluoropolymers have no valuable alternatives.
Mr. Robin concluded by stating that a proportionate option for PFAS regulation would be a **combination of risk restrictions derogating for Fluoropolymers** completed with **voluntary initiatives in terms of responsible management**, together with a **review of the EU Waste Policy**.

When asked to give an opinion on why PFAS represent an important risk for the water sector, **Dr. Claudia Castell Exner** representing EurEau, emphasised the **relevance of mobile substances** which, due to this intrinsic property are very likely to end up in the water cycle, and at some stage in drinking water resources. For the first time, the **2020 Drinking Water Directive (DWD) sets stringent parametric values for PFAS** (PFAS total (0,5 µg/L) and the **sum of 20 PFAS-substances** (0,1 µg/L). Besides this the European Food Safety Authority published

its own opinion saying that PFAS are even more harmful. Their proposed threshold values for four PFAS would translate in just a few nanograms / litre.
She expressed that **EurEau supports an ambitious application of the control-at-source-principle** in the first place. In this context EurEau is in favour of a stringent authorisation which takes the intrinsic properties of the substances like their mobility more into consideration than today.

Ms. Tatiana Santos, on behalf of the EEB, positively answered the question on whether there are currently sufficient policy tools and knowledge to abate PFAS. She highlighted the potential of EU tools such as the **Chemical Strategy**; and of the **generic risk management promotion** and **grouping approaches**. She also added that the **REACH authorisation** as well provides with very important tools for considering PFAS as substances of very high concerns due to their persistency property. However, she reminded that **PFAS pollution scandals are growing**, and that they are not easy to regulate. This difficulty derives from the fact that they are highly numerous — hundreds are produced industrially in EU, and around 100,000 sites are esteemed to emit PFAS into the environment. Moreover, Ms. Santos added that there is a **general lack of information** on PFAS properties, volumes, emissions and uses, due to non-compliant registration dossiers, and non standardised EU reporting. Furthermore, it is crucial according to Ms. Santos to **address polymers as well**, when talking about regulating PFAS. The **upcoming universal PFAS restriction**, she believes, will solve problems such as those of remediation costs, which are currently not covered by the polluter pays principle.
The second reason why it is difficult to regulate PFAS, she continued, is that **derogations are restricted to the Montreal Protocol concept of "essential uses"**. Thirdly, she highlighted, **not all PFAS are currently registered**: it is extremely important, according to Ms. Santos, to include also polymers (and Fluoropolymers) within the PFAS registration. Fourthly, a big hurdle is represented by the current **non application of the polluter pays principle**. On this regard, she identified in the **Environmental Liability Directive** as a possible actor to amend the polluter pays principle. Ms. Santos concluded by stressing the importance to ensure **proper and objective scientific assessment**.

The floor was then given to **Mr. Bjorn Hansen**, who was asked which are in his opinion the main challenges that the PFAS restriction process faces, and what does he think it is necessary

to do to render it successful. On this regard, he believes the **main challenge lays with the size of PFAS**, in terms both of number of substances involved and of their multiplicity of uses. However, he is optimistic and thinks ECHA will be able to do its part by finalizing a scientific informative dossier which can be a solid basis for policy-makers to take decisions on PFAS.

Mr. Nicolas Robin, answering to Mr. Bjorn Hansen, stated that the industry already has consultation processes in place, and that all information Member States receive can be processed and used. He then stressed the **importance of Fluoropolymers in fostering innovation**: for example, the Euro6 and Euro7 standards for transport emissions would be impossible to achieve without Fluoropolymers. Among others, as responsible manufacturers, they collaborate in research projects, identifying options for proper incineration of Fluoropolymers. Moreover, he reminded that all companies implement **risk management** and that a**ll emissions are approved by national authorities**. Hence, he conceded that from its side, the industry is complying with its work, in terms of manufacturing, use and end of life.

At this point, **Dr. Claudia Castell-Exner** underscored that PFAS is a burning issue according to the new stringent DWD's parametric values. End-of-pipe solutions are not the way forward since PFAS treatments have significant technical, economic and environmental limits which run counter to the objectives of the Green Deal. She stressed once again the importance to consider **the mobility** of substances like PFAS in the authorisation procedures under the REACH-legislation. Furthermore, EurEau supports proactive and supportive requirements under the CLP revision, the REACH revision, addressing them as a group, the Industrial Emissions Directive and the list of priority substances of the Water Framework Directive.
To conclude, Dr. Castell-Exner highlighted the **weakness of the Environmental Liability Directive**, which still lacks a proper definition of what environmental damage is according to the latest report of the European Court of Auditors.

Ms. Tatiana Santos believes that one of the loopholes of the current restrictions, and not only of those regarding PFAS, is that **derogations are not properly justified**. Then, she added, **control measures are not imposed**. Also according to her, these challenge would be addressed through the adoption of a **wider scope on the universal restriction proposal**, in particularly with regard to those PFAS more widely used (ie Fluoropolymers) and hence emitted into the

environment. Furthermore, she explained that the concept of "essential uses" has to be applied based on the Montreal Protocol, which has proved to be successful. Another important aspect highlighted by Ms. Santos is that usually derogations are time unlimited, posing a big problem: **any derogation which which must be based on the Montreal Protocol should thus be time limited and regularly reviewed** to check if there are available and valuable new alternatives, viewed the continuous growth and evolvement of the market. Talking about derogations, she recognised the fact that this is a transitional period to move away from harmful chemicals in general —and PFAS in particular, towards safer chemicals. Anyways, she stressed that **derogations should be subject to limitations and obligations.** Hence, if a particular use of PFAS is derogated, it should be done by following the obligations to control, label and report. Strict risk management measures are necessary, so are fees on allowed volumes: in this way, the polluter pays principle would be better applicable.

At this point, the panelists were asked to provide the audience with some take-aways. According to **Mr. Bjorn Hansen**, the most important aspects to ensure during the process of regulating PFAS are **transparency** and **ongoing discussion** among stakeholders. According to **Mr. Nicolas Robin,** it is necessary not to adopt an universal restriction on PFAS and to recognise the growing demand for Fluoropolymers around the world, especially for green technologies and electronics. The problem of an **universal restriction of PFAS will thus damage EU industrial competition in the global arena**. **Dr. Claudia Castell-Exner** emphasised the urgent need of a paradigm shift, by applying the control at source approach and including intrinsic properties such as mobility in the authorisation process. An additional limitation of current technologies to remove PFAS from raw water lies in the generation of problematic residues that are difficult to dispose of. She emphasised the importance to properly apply **the polluter pays principle EU-wide**, and thus for producers to assume their responsibility for the whole life cycle of their products. Finally, **Ms. Tatiana Santos** finds it necessary to **restrict the derogations to PFAS**, so that only those contributing to health and environmental protection should be the allowed. The problem that this approach tackles, she repeated, is the fact that **all PFAS are persistent**.

Q&A session with the audience

Answering the question whether PFAS' producers will pay when these substances will have to be removed, **Ms. Bertato** replied that PFAS contamination is not a good example of the polluter pays principle, since in many cases it has not been applied: this is why the Commission is taking into consideration to **review the Environmental Liability Directive**. The importance of the polluter pays principle was also underscored by both **Dr. Castell-Exner** and **Ms. Santos**, who explained that the goal of both the precautionary principle and polluter pays principle should be to prevent exposure to harmful chemicals. Mr. Robin replied by stating that the Fluoropolymers manufactures **are responsible** and rely on principles and scientific evidence. At this point, **Ms. Bertato** highlighted the fact that the industry is mainly focused on the "use" phase, not addressing the whole life-cycle of Fluoropolymers, so fluoropolymers should be included in the PFAS restriction process; while **Mr. Robin** answered by restating the opposite. The last question regarding how the revisions of the CLP (classification, labelling and packaging of chemical substances) and the REACH can affect the revision process was first answered by **Ms. Santos**. She emphasised the **importance of the revision of polymer registration** provision. Registration is indeed the first pillar of REACH, and the problem is that polymers are exempted from this regulation. Ms. Stantos further stressed that **at least basic information on polymers** should be provided. Ms. Bertato added that the **Commission is reviewing REACH and CLP** and is considering to include "persistent, mobile and toxic", "very mobile" and "very persistent" as qualities of concern. **Dr. Castell-Exner** expressed support to the class proposal. Finally, **Mr. Hansen** admitted that restriction on PFAS is fully possible under the current legislation. In terms of criteria, it is important to increase consistency.

Closing remarks

Ms. Marieke Schouten, Rapporteur on the Zero Pollution Action Plan, Committee of the Regions.

"As local authorities, we face some problem while addressing PFAS: complex causes, conflicting interests and the gap between policies and practice".

Ms. Marieke Schouten summarised the PFAS dilemma: on the one hand, **PFAS are currently present and needed** in many items of daily used; on the other they have **negative effects** on human health and the environment. Then, considered that a comprehensive coverage of all PFAS is an extremely lengthy process, she stressed the importance of the **preventing, precautionary and polluter pays principles**. They are indeed necessary in order to, first of all, achieve the EU Action Plan towards zero pollution by 2050; and secondly, to face the PFAS outbreak. For what concerns local authorities, Ms. Schouten stated that there are numerous difficulties they face and which are related to PFAS, among which **complex causes**, **conflicting interests** and the **gap between policy and practice**. She thus emphasised the important role of administrative and compliance mechanisms. Ms. Schouten concluded by stating that **there are challenges**, but there is also a **meaningful way forward, which is achievable only through a paradigm shift.**