How can we unlock the potential of bio-based plastics?

26 January 2023, 9.00-10:30

Hybrid Event

Hosted by MEP Miapetra Kumpula-Natri

Co-Chair of the European Parliament Intergroup on 'Climate Change, Biodiversity & Sustainable Development'

Speakers:

- **MEP Miapetra Kumpula-Natri**
- **Werner Bosmans**, Policy Officer on Circular Economy, B1 Unit on 'Circular Economy, Sustainable Production & Consumption', DG ENV, European Commission
- **Mercedes Alonso**, Executive Vice President, Renewable Polymers & Chemicals, Neste
- **MEP Stéphane Bijoux**
- **Joan Marc Simon**, Executive Director, Zero Waste Europe
- **Karin Molenveld**, Senior Scientist on Biopolymers, Wageningen University & Research
- **Rafael Heredero**, Policy Advisor, EurEau
- **MEP Malte Gallée**
- **MEP Catherine Chabaud**

Opening Remarks

MEP Miapetra Kumpula-Natri

> *"We need an ambitious long-term regulation to unlock the full potential of sustainable and circular bioplastics in the EU single market, incorporating clear incentives for both recycling and biobased sources"*

As an opening statement, **MEP Miapetra Kumpula-Natri** (S&D) highlighted how the use of bio-based products is extremely important to achieve the **EU's climate targets** and the **circular economy's objectives**. Although the Commission has set a non-binding target of 20% fossil free content in plastic products by 2030, **less than 1% of plastic comes from bio-based sources**. The need to rely on material efficiency, recyclability of products and durable packaging is therefore key. Indeed, we must increase **investments for our industries** that can expand and innovate bioplastic capacity in the future. Ms. Kumpula-Natri praised the work of Neste as exemplary for the circular plastic value chain in Europe. Policy frameworks such as the **Ecodesign Regulation**, the new proposal on the **Circular Economy Package** and the **Packaging and Packaging Waste Directive** carry the opportunities for the EU to reduce its use of fossil-based contents in plastic products. The key objective will be to reduce fossil content in plastic products and replace them with recyclable and bio-based materials. In addition, it is crucial that climate friendly products and sustainable materials support the **commercialisation and innovation of more circular production.**

Presentation on the policy framework on bio-based, biodegradable and compostable plastics

Werner Bosmans, Policy Officer on Circular Economy, B1 Unit on Circular Economy, Sustainable Production & Consumption, DG ENV, European Commission

"We want a re-use model, not a single use model"

Mr. Bosmans focused on the importance of a **policy framework on bioplastics**, which was announced at the end of November. He underlined its role in the spectrum of the European Green Deal, as working towards a circular economy requires an unbiased distinction between good and bad materials. He identified four main categories in which to place plastic materials, based on their main component and on their end-of-life cycle: **bio-based, fossil-based, biodegradable and non-biodegradable.** Bio-based plastics are made from biomass, and the content should be specified by producers. The best method for determining the percentage of biomass in a product is the C-14 method, but it needs to be done with stricter rules and in compliance with specific sustainability criteria. At the same time, biodegradation is a system property and its timeframe of **degradation should be short enough to not harm the environment**. He stressed how composting constitutes a valid alternative only for specific applications, such as compostable bags for biowaste, and how home composting should not be promoted. GHG emissions of bio-based versus fossil-based plastics need to be researched and assessed before investments are carried out. Most of the value chains for plastics are global, so **maintaining an international perspective on the topic is fundamental**; the UN Plastic Treaty could represent a significant positive turn in the discussion on bioplastics.

Panel discussion

Speakers that took part in the panel discussion:

- **Mercedes Alonso**, Executive Vice President, Renewable Polymers & Chemicals, Neste
- **MEP Stéphane Bijoux**
- **Joan Marc Simon**, Executive Director, Zero Waste Europe
- **Karin Molenveld**, Senior Scientist on Biopolymers, Wageningen University & Research

All panellists were asked about the key challenges and opportunities to unlock the potential of bio-based plastics. In regards to this question, **Ms. Alonso** emphasised that Neste has the potential to lower emissions and change from fossil to bio-based plastics. It was also highlighted that there is an **emergent need to look at the transition of products**. It is indeed urgent to develop **new technologies** that reduce emissions and that promote competitiveness in Europe.

MEP Stéphane Bijoux (Renew) made an important statement about the presence **of plastic in our oceans**. The gravity of this problem has caused the formation of a plastic continent in the middle of the Pacific Ocean. These plastic particles are especially harmful to **biodiversity, coastal areas and human health**. The argument was made that it is time to take responsibility and protect both human health and the surrounding environment. **Alternatives to single-use plastics** need to be assessed, and a bridge between ecology and economy has to be built in order to implement circular economy models that strengthen the potential of bio-based plastics. Furthermore, it is necessary to allow space for **information transparency and fight greenwashing initiatives**. Mr. Bijoux also mentioned the value that local actors bring to this green transition, especially in developing countries outside of the European continent. Through the support of **research and innovation and good practices**, it is crucial to fight plastic pollution.

Mr. Simon pointed out the dangers that come with **compostable packaging**. The lack of collection systems and the contamination of recycling and biowaste systems pose real **challenges to the deterioration of compostable packaging**. Compostable waste should be collected industrially and attention should be put on to avoid biodegradable waste to end up in incinerators. He highlighted how Europe naturally lacks fossil resources, further stressing the role

of biomass-based alternatives. Avoiding competition with food crops, in this perspective, is fundamental.

Ms. Molenveld enunciated that even though there are opportunities to adopt circular models for plastics, the demand for certain plastic products is still very high. In addition, plastics were not developed initially to be recycled. Therefore, the main challenge is to do what is possible to recycle and reduce pollution. Nevertheless, nowadays Europe is **developing new possibilities and new demands for recyclable products and biobased plastics offer the opportunity to produce plastics and products with improved recycling characteristics.**

Looking at a question on which key policy elements are needed to promote the potential of bio-based plastics, **Ms. Alonso** answered stating that the **Packaging and Packaging Waste Directive will play a key role in recyclability of materials**. To this day, 50% of plastic contents are still non-recyclable. It is therefore crucial to ensure targets that envision the **ban of fossil use** to stop plastic production. In addition, the **Ecodesign Regulation** for sustainable products was also mentioned as an important policy framework to **promote renewable materials** and sustainable biomass.

In regards to the question about the role of bioplastics and its impacts on climate change, **Mr. Simon** added that there is a stringent need to **reduce the use of plastics and decrease the emissions of carbon**. For the future, more recyclable contents need to be produced, clear targets need to be set and transition from oil-based plastics to bio-based plastics are needed.

By giving advice to companies that want to get involved in bio-based plastics, **Ms. Molenveld** also addressed the need for **new companies to be ambitious and invest in new models that promote circularity**. If targets are not achievable, it is essential to work on the interim steps that will lead

to the final objective. The point was made that communicating work developments and adopting new solution-driven strategies are key.

Reaction by EurEau

Rafael Heredero, Policy Advisor, EurEau

> *"Microplastic pollution is a growing concern for the environment, especially for water contamination and sewage sludge"*

One of main threats that **Mr. Heredero** underlines is to look into **end-of-life plastics**. These non-degradable components are a growing concern for environmental and water pollution, especially for **sewage sludge**. Furthermore, the compostability of plastics can give the wrong signals if not managed well. In fact, products like wet wipes can litter the sewage and water systems. Overall, three main challenges were mentioned. First, **microplastics are a big problem for sewage sludge**. Second, there is **no separate waste collection system** for these kinds of plastics. And lastly, the disposal through toilets of waste leads to **blockages and littering**.

Reactions from MEPs and Q&A session

MEP Malte Gallée

> *"We need to stop these greenwashing initiatives and ban fossil-based plastics in order to achieve the 2030 targets"*

MEP Malte Gallée (Greens/EFA) underlined the urgent necessity to **ban fossil fuels and achieve the 2030 targets.** One of the greatest threats to biodiversity is plastic pollution. He mentioned

how in Nairobi there is one of the biggest landfills in Eastern Africa, and 80% of it is made of plastic packaging materials. Although there have been some missed opportunities in the past, with the **right policy instruments and tools there is a chance to move towards the right path**. The Packaging and Packaging Waste Directive will be one of those important steps forwards, which will be influential to banning single use plastic models.

MEP Catherine Chabaud

> *"We have to create start-ups that will promote new jobs, because there is a market and enough research and innovation for producing biodegradable fishing gears"*

MEP Catherine Chabaud (Renew) highlighted the need to **transition from bio-based plastics to bio-based polymers**. It is indeed crucial to talk about the composites of materials, and a regulation on the composites of materials would be necessary. Another key aspect mentioned by Ms. Chabaud was the **importance of fishing gears and their degradability**. Even though some fishing nets are now produced with bio-based plastics, they are too expensive to be produced in Europe. There is therefore the need to think about the **value chain of bio-based fishing nets and boost start-ups to increase their production in the EU**. Lastly, Ms. Chabaud also mentioned the need for an international Treaty on plastics, with d DG ENV taking the lead on a regulation on microplastics.

Closing remarks

The discussion ended with some closing remarks. First, **MEP Malte Gallée** highlighted how the **export ban for plastic waste has been voted in plenary** with a significant majority. Pressure has therefore been put on the Council to follow on this position and not oppose this target.

Second, **Mr. Bosmans** highlighted the issue of fishing nets, mentioning how DG Mare is **struggling to find biodegradable alternatives due to the need for resistant materials**. He focused on direct microplastics, highlighting the need to capture them before they become microplastics and end up harming the environment. He also mentioned the issue of microplastics as a product of abrasion. The EU needs to take the lead on international negotiations for the UN Plastics Treaty, but in a way that does not express paternalism towards other countries that, like the SIDS, are notoriously the most impacted by climate change and pollution.

Third, **Ms. Alonso** concluded by highlighting the importance of making sure that the EU legislation sets the **path toward non-fossil targets**. Compliance with sustainability criteria and with the Ecodesign Regulation represent a real opportunity to **deliver the European Green Deal**, and there is therefore a need to work more quickly on the matter, not to lose this momentum.