

**Fighting marine litter:
The contribution of plastics which are biodegradable in the marine environment**

7 June 2018 - European Parliament, Brussels

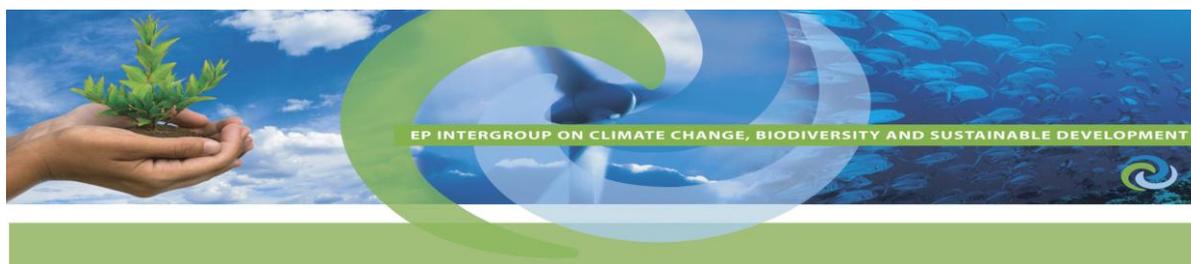
This event was hosted by **MEPs Angélique Delahaye** and **Ricardo Serrão Santos**, Vice-Chairs of the European Parliament Intergroup on “*Climate Change, Biodiversity, and Sustainable Development*”, and brought together policy-makers, the research community, private and NGOs’ sectors to engage in an informed debate on the topic of biodegradable plastics in the marine environment and the potential solution they represent, and thereby the need to have a clear definition and a clear norm at EU level on marine biodegradability.

The panel also included:

- **Sarah Nelen, Head of Unit “Waste Management & Secondary Materials”, DG Environment, European Commission**
- **Dr. Miriam Weber, HYDRA Marine Sciences**
- **Jean-Marc Nony, Director of Sustainable Development, SPHERE**
- **Meadhbh Bolger, Friends of the Earth Europe, Rethink Plastic Alliance**



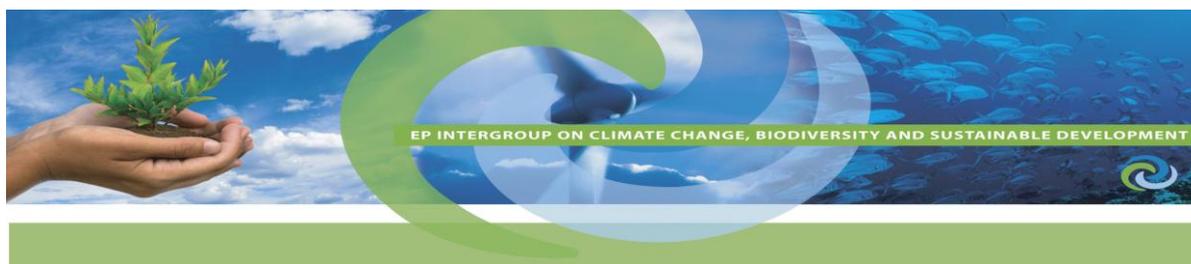
In January 2018, the European Commission presented its Strategy for plastics in a circular economy. The Commission’s vision to prevent plastics from ending up in the environment includes improving re-use, sorting, collection, and recycling of plastic waste in Europe, as well as encouraging research and innovation, and increasing international cooperation as oceans have no boundaries. Yet, there are perpetuating misunderstandings about bioplastics and biodegradable plastics that are commonly mistakenly associated with oxo-degradable plastics.



MEP Serrão Santos opened the conference, providing the audience with some background information on the challenges that plastics pose nowadays. While this is a global issue, there is plenty legislation in order, however still a lack of good governance, according to the MEP.

After that, **Sarah Nelen** from DG Environment took the floor, mentioning that as the production of plastics is expected to double over the next 20 years, by 2050 there might be more plastics than actually fish in the sea. As a result, EU needs to lead by example in order to tackle these issues. In this context, the Commission presented its Strategy for plastics in a circular economy in January, with a focus on four key elements: economics and quality of recycling (e.g. design), curbing plastic waste and littering, innovation and global action. Ms. Nelen underlined that terminology is important as *biodegradable* (they can be conventional or bio-based) and *bio-based* plastics (wholly or partly derived from materials of biological origin) are not the same. The Commission takes a cautious approach towards biodegradable plastics: they might bring new opportunities but also risks, e.g. as there is no standard currently on biodegradability in the marine environment. Consumers have to be better informed as well, e.g. regarding labelling of biodegradable and (home)compostable plastic carrier bags, the Commission is envisaging action. Ms. Nelen underlined that it is important to know about the time-frame and conditions of the biodegradability of materials; currently available plastics labelled as biodegradable generally degrade under specific conditions which might not be easy to find in the natural environment and can still cause harm to ecosystems. The JRC is currently executing a related study with a life-cycle assessment. For now, biodegradable plastics are included in the scope of the Single Use Plastic proposal, but there might be the possibility after 6 years to allow exceptions for biodegradables. The restriction of oxo-plastics is an action foreseen in the Plastics Strategy; some member-states have already introduced bans. Finally, as the European Parliament is discussing about the Commission's proposal on single-use plastics, the need for substitutes and reusable alternatives is significant and innovation is expected to play a key role.

From **Dr. Miriam Weber's** point of view, for decisions on the topic more science-based knowledge is needed. Biodegradation is the complete conversion of the polymer to CO²/methane, water and biomass through the action of micro-organisms. The biodegradability is a material property and is not necessarily equal under all conditions or might not apply under certain conditions. The measurement of biodegradation should be done by standardised laboratory tests directly proving the biodegradability. Moreover, it should then be combined with field tests showing the disintegration under real field conditions. According to Dr. Weber, HYDRA Marine Sciences developed field tests for 6 environmentally relevant coastal habitats in temperate and tropical climates. To cover the marine environment, test development continuation needs to include also the deep sea, cold and anoxic conditions. HYDRA Marine Sciences continues also to develop strategies to measure degradability of products, and highlighted the same need for micro-plastics, because of the many products, where abrasion fuels micro-plastics into the environment. In

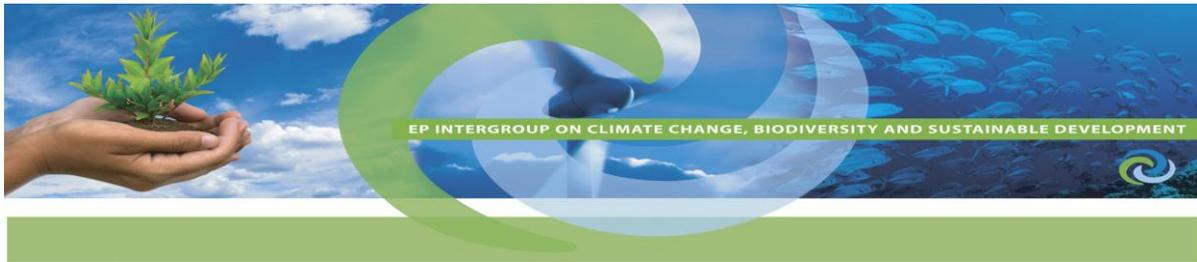


addition, Dr. Weber mentioned the development of a model to calculate the degradation time for specific polymers and conditions. Although biodegradable plastics can not be the general solution to the plastic problem, and bearing the same risks (e.g. entanglement), it will not persist “forever” and accumulate further. Dr. Weber recommended the compilation of a data set with the degradation times of the most common biodegradable polymers in the most relevant marine habitats, while underlining that certification by reliable agencies for the claim “biodegradable” is necessary. To decide about which materials could contribute to a certain extent when substituted, the creation of another model showing the share of the global marine plastic litter would be very helpful. All in all, the data and scientific tools presented by Dr. Weber aimed at helping policy-makers and key stakeholders define the boundary conditions of biodegradability, such as for example the acceptable times, as well as what conditions represent “marine” biodegradability and which materials and items should be substituted.

According to SPhere Group Director of Sustainable Development **Jean-Marc Nony**, the plastic industry has the ability to address said topics. By presenting SPhere’s best practices, Mr. Nony stressed that innovation is an enabling factor of addressing biodegradability of products in the marine environment. For SPhere Group, the Plastics Strategy and the legislative proposal for a Directive on the reduction of the impact of certain plastic products on the environment are addressing the key challenges that the plastic industry is facing. The plastic industry itself must however contribute to the fight against marine litter with technical innovations, too. In addition, it was mentioned that "an EU norm on plastic marine biodegradation should be defined without losing time, as called for by the Commission". Informal discussions on marine biodegradability in the Standardization Committee of CEN have already started, but they are waiting for an official mandate by the Commission.

Meadhbh Bolger representing Friends of the Earth Europe and the Rethink Plastic Alliance welcomed the Commission’s proposals, mentioning that it serves as an inspiration for member states to create further national legislation and move towards tackling plastic pollution. Ms. Bolger also underlined the technical issues related to marine biodegradability, stressing that there is a lot of confusion for the consumers deriving from the technical terminologies between different types of plastics. Moreover, Ms. Bolger mentioned the difficulty developing biodegradability standards that are completely safe, and was therefore opposed to the development of European standards for marine biodegradability. On the other hand, as labeling can be misleading, stricter rules on marketing and labeling of other biodegradable plastics were suggested. From the NGO’s perspective, the need to prioritise absolute reduction in plastic production and consumption is crucial.

The presentations were followed by a lively debate with the audience, which indicated the need for action based on the proposed legislation by the Commission. During the debate session, participants stressed the current complications of terminology, alongside the



negative effects of greenwashing. Furthermore, the big impact of litter on the Pacific and Indian Oceans, as well as on Overseas Territories was mentioned.

After summing up the discussions, **MEP Ms. Delahaye** closed this meeting, thanking participants for their attendance and contribution, while mentioning that right solutions need to be found, in order to leave a better planet to our future generations. **MEP Serrão Santos** also commented that "plastics are mobilizing the society" to step up efforts in finding a solution. Towards this direction, **MEP Ms. Delahaye** highlighted that "guidelines for the industry are needed", while the European Parliament aims to finalise negotiations on this file until the end of its mandate. As a result, it is now expected to present its first draft report on the Commission's legislative proposal on single-use plastics and fishing gears on 12 June (Rapporteur: MEP Frédérique Ries, ALDE, Belgium).

[The presentations and meeting documents are available here.](#)