



SUMMARY REPORT

The Future of Plastic Materials in the European Circular Economy

7th April 2016

European Parliament, Brussels

Policy-makers, regional authorities, industry, NGOs, and other stakeholders along the plastic value chain were gathered by **MEP Miriam Dalli** to discuss the challenges and opportunities of the role of plastics in the circular economy.

Miriam Dalli, MEP and Chair of the “Circular Economy” Working Group of the EP Intergroup on “Climate Change, Biodiversity, and Sustainable Development” welcomed the participants by stressing the importance and complexity of plastic materials. It was said that plastics have since the 1950s revolutionised the way we live and are an essential part of our daily lives. It was stressed that if business proceeds as usual plastic waste is projected to double in the next years. It is a matter of great concern as most of the plastic is lost, dumped, landfilled or exported causing great environmental impact in streams, air, and oceans. It was underlined that recycling is a key solution and by applying the circular economy principles the plastics in the global economy can be reshaped. It was underlined that plastics have the potential to be recycled many times while maintaining its valuable functions. It was emphasised that the EU must limit the export of plastic waste and instead enhance the recyclability and product design in order to obtain the economic gain. It was stressed that to realise this all stakeholders are needed and such measures must be supported by proper policies. In order to scale up the circular economy at EU and international level the support of policy-makers and governments is required. It was stressed that a focus on accelerating better recycling targets and pushing for biomaterials is needed. Further, business, governments, and consumers are discovering that there is a need for this transition also emphasising that investments will be needed from industry and legislative structures.

Fulvia Raffaelli, Acting Head of Unit “Clean Technologies and Products”, DG GROW, European Commission underlined that plastics are a diverse material, which is an advantage when it comes to the manifold of uses but a disadvantage with regards to recycling as some are easier to recycle than others. In addition, recycling is often difficult due to barriers such as low oil prices, limited separate collection, and quality issues and cost-competitiveness of recycled plastics. It was said that this leads to difficulties in creating a secondary market for raw materials. The Circular Economy Package (CEP) acknowledges this and contains a number of measures that can help address some of the barriers. With regards to production it was outlined that incentivising better design is key. The need to produce more efficient production processes as well as promote industrial symbiosis was stressed. On the consumption side it was said that labelling and environmental information can be improved

as well as promoting green public procurement. With regards to waste management separate collection must be improved. The CEP calls for an increased recycling target for plastic packaging waste, outlines a landfill reduction target, and puts a ban on landfilling separately collected waste. It was said that recycling material however only makes sense if there is a market for such materials. There are still challenges and great differences in Member States where a material can be considered a product while in another it is seen as waste. Standardization is therefore crucial. It was concluded by highlighting that a specific strategy on plastics role in the circular economy will be adopted before the end of 2017 and public consultation on the matter will begin shortly.

Babette Winter, State Secretary for Europe and Culture, Thuringia, Germany and Rapporteur on the Circular Economy Action Plan from the Committee of the Regions highlighted the important role of the subnational level in collecting and recycling plastic materials. It was explained that in Thuringia, an increase of lightweight packaging has been seen since 2004-2005. It was also said that Germany follows the “pay as you throw” principle except when it comes to packaging material, which is the responsibility of producers and traders. It was underlined that one problem with the current model is that consumers have to sort waste according to the system and not according to the material, which is very confusing. Another issue mentioned is that the producer and trader have an increasing share of freeloaders and as a consequence licensing or sectoral solutions are needed within specific industrial businesses. Additionally beverage bottles differ for multi-use and single-use bottles, and packaging material for transportation can be returned to the selling point. It was also said that waste from SMEs and industry is not the responsibility of municipalities stressing that industries need to separate and recycle their plastic materials. The KISS approach – keep it smart and simple - was promoted highlighting that a system must be easy to use in order for citizens to obtain higher sampling and sorting quota. Further, this will also bring better material recovery, higher quality recycling as well as less downcycling and energetic recovery. The importance of ensuring low administrative burden was also stressed. It was said that future discussion should focus on sorting according to material and not on the utilisation of the product. Other future aspects include organic batteries, and new composed materials for construction and buildings.

Patricia Vangheluwe, Director for Environment & Consumer Affairs, PlasticsEurope underlined that the plastic industry is a key enabler of innovation and a key contributor for resource efficiency and the circular economy. It was outlined that the plastics industry contributes to this via four pillars of society. With regards to food and health it was underlined that plastic and packaging helps combat shortages and spoilage waste of food and drinking water. In the area of climate and energy it was said that plastic products currently on the market have enabled energy savings equivalent to 53 million tonnes of fossil fuels. In the building and construction sector improving the energy efficiency of homes and workplaces was highlighted. Plastics also contribute to constructing transport means making them lighter and permits to save oil and reduce CO2 emissions. It was underlined that plastics offer many of the solutions for future challenges during their use phase as they allow considerable resource savings. It was pointed out that the key success factors for a resource

efficient circular economy are life cycle thinking and risk management. In a well-functioning circular economy it was said that we have to get maximum value from limited resources. There are different strategies to achieve this; one strategy is by transforming waste into secondary resources and another strategy is by designing and using products in a resource saving way. It was also said that a competitive and resource efficient Europe remains the key objective pointing out that a holistic approach is needed. With regards to the recycling and reuse targets for plastic packaging further clarification of certain definitions is needed. It was also emphasised that zero plastics to landfill should also be a main objective. It was also said that innovation must be supported in waste management technologies and coherence between legislations dealing with waste, products and chemicals should be ensured. In addition, consumer education and behaviour together with a strong collaboration along the value chain are needed to achieve circular economy deliverables.

Hasso von Pogrell, Managing Director of European Bioplastics underlined that bioplastics have been produced for over 20 years covering today a multitude of market segments such as packaging, automotive, electronics, and textiles to name a few. It was explained that bioplastics are defined as biobased, biodegradable or both. It was underlined that bio-based plastics support the circular economy by increasing resource efficiency by using bio-based, re-growing feedstock. It was also said that they support recycling of plastic waste as the foremost part of bio-based plastics is easily recyclable within existing waste streams. Further, they reduce CO₂ emissions by using biomass and sequestering it in the products and decrease dependency on oil. It was stressed that all sources are readily available across Europe and there is no competition for food and feed as the area needed amounts to 0,01%. It was said that biodegradable/compostable plastics support the circular economy by increasing waste management efficiency and reducing greenhouse gas emissions by diverting biowaste from landfill and other waste streams to organic recycling. It also strengthens the EU secondary raw material market by supporting the separate collection of biowaste and organic recycling. Further, it provides new properties that help to e.g. prevent food waste. It was said that to really tap the potential a favourable framework needs to be in place with an enabling market including the need for separate collection of biowaste and plastics. The need to include organic recycling in the definition of recycling and introduce bio-based and biomass in legislation was also mentioned. It was also called upon the EU to encourage Member States to promote packaging made from bio-based materials and assess the feasibility of gradually replacing food packaging with bio-based and or biodegradable compostable material.

Dr. Michiel De Smet, Project Manager in the Ellen MacArthur Foundation highlighted the findings and conclusions of the New Plastics Economy report, launched at the World Economic Forum, earlier this year. It was said that plastics have become the ubiquitous workhorse material of the modern economy as they have a lot of benefits. However, in the current ineffective system plastics also have various drawbacks. The New Plastics Economy report firstly examined packaging stressing that plastic packaging material flows are largely linear with USD 80-120 billion annual material value loss and with significant leakage. It was outlined that the system is ineffective with only 14% of plastics being collected. Further, 40%

is landfilled and 32% is leaked into the environment. It was stressed that only 2% is in the end closed-loop recycled as 4% of the collected waste is lost and 8% is cascaded recycling. It was estimated that the costs related to the negative externalities are roughly USD 40 billion a year, which is more than the profit of the plastic industry as a whole. It was underlined that the New Plastics Economy offers a paradigm for a plastics economy that works by reaping the benefits of plastics while creating an effective system from an economic and environmental point of view. It was outlined that an effective after-use plastics economy is needed that drastically reduces the leakage and to decouple plastics from fossil feedstocks. The Ellen MacArthur Foundation is setting up a global effort to mobilise recommendations and face the challenge and opportunity to transition. It was said that many initiatives are taking place on design and on the end-of-pipe side but they are often fragmented or very local initiatives. The aim is to set up a global cross-value chain dialogue mechanism, converge and re-design plastic packaging material/formats and after-use systems through a Global Plastics Protocol. It was stressed that targeted moon shot innovations must be mobilised with the potential to scale globally. Further, it must also build a base of economic and scientific evidence and engage with policy-makers. The official launch of EMF's New Plastics Economy initiative will take place on May 25-26 in London.

Piotr Barczak, Policy Officer 'Waste', European Environmental Bureau, underlined that 206kg of waste are discharged into the ocean every second, of which a huge majority is plastic waste. Further, the recycling stream feeds into only 4% of European demand for plastic. It was outlined that products must have a long life and be durable. It was also said that superfluous waste must be prohibited. The local scale was also pointed out highlighting that the waste should be kept in the local economy in order to gain from it. The importance of aiming for non toxic substances was also stressed as an essential pillar. It was further said that the EU should aim at perpetual recycling by improving the quality of recycled material. The need for standards for plastic recycling plants on final materials was highlighted fulfilling the EoW criteria and on processes through tighter BREFs. The need for high standard collection and sorting as well as avoiding health and reputational impacts of recycled plastics was also stressed. Further on the need to achieve a non toxic environment ambitious REACH implementation is essential. It was underlined that products or packaging, for which a safe and cheap and functional substitute exist are often promoted and kind of "imposed" by the business. Also highlighting shops that are launching packaging-less refill sections as a good example of what the consumers ask for. It was said that legislation must start to show that certain items are poorly designed, costly for the environment and people, and should be reduced and replaced by safe durable, reusable alternatives. It was also emphasised that recycling promotes jobs. The EU should aim to improve the markets and provide better collection and clarity for consumers. Introducing CO2 avoidance credits for recycling, re-introducing 60% recycling targets for plastics, tax reductions for recycled content in products, higher EPR fee imposed on non-recyclable products, deposit refund schemes, and the need for innovation with regards to materials were also mentioned.

The discussion with the audience highlighted that the recovery of plastic packaging is often not economically viable but if more efforts are put towards the design recyclers and

collectors can benefit from the material and be seen as a valuable business case. It was also said that packaging must be made from fully recyclable materials as it was pointed out that it is a prevailing myth that people will substitute bottled water for a public fountain, but rather switch to other packaged items. It was then reiterated that people ask for reusable items because environmental awareness is rising as well due to their economic attractiveness. Further, it was said that the creation of more and more non-packaging shops is proof of this. It was also reiterated that the situation of recycling differs from country to country also depending on what type of packaging is discussed. It was stressed that innovations are therefore essential as well as the need to ban landfills. Further, material recovery must be taken into account as even though the technology is there it is often too expensive to use the material as there is no market for it underlining that recycling content requirements could be a solution. With regards to creating a secondary raw material market it was said that a lot of differences exist in Member States dealing with materials. The Commission outlined that as a first step it will create a legal framework that allows the creation of this market also mentioning that there are limited quality standards for plastics. It was stressed that the market will not happen without demand but conditions are needed that allow for better uptake of materials. With regards to the demand side it was said that green public procurement is important as well as the required recycled content rate in new products put on the European market. It was also said that authorities often buy products that they trust highlighting the need to ensure labelling and quality. The importance of prevention was raised calling for action on reuse and durability. It was said that the EU must try to reduce the actual need of plastic products by re-design and new models of consumption still providing the same functional properties. It was also said that there is a clear imbalance of where decisions are made and where the leakage happens. Social innovation was stressed as well as the need to raise awareness and promote education in order to change behaviours was also called for. The danger of marine litter was also stressed.