

## **Commission Public Consultation on the Green Paper on Plastic Waste**

### **General remarks**

EXPRA welcomes the Green Paper and the opportunity provided to stakeholder and citizens to give input on its content and take part in the EU discussion on ways to improve the management of plastic waste in Europe. However, we do consider that the approach of the Green Paper is in some respects too general, without taking into account the diversity and heterogeneity of plastics due to its composition and applications. Also, when speaking about plastic material and plastic waste, it is important not to give an excessive focus on the negative impacts of plastic waste on the environment, but also aspects such as the important value of plastic as a material and the contribution that plastic waste management and recycling makes to CO2 emission reductions.

We would also consider it beneficial to place specific attention to packaging. Packaging has the function to transport and protect a product, and to extend its (shelf) life. By doing so, packaging is beneficial to the total environmental impact of a product if eco-designed. Therefore it is beneficial even if plastic packaging in accordance with eco-design rules is “not reusable or foreseen for reuse” (as is stated on p. 5 of the Green Paper). In order to be functional, packaging should have a minimum required substance (a certain limit to preventive measures for packaging).

In this context, we would also like to acknowledge that EUROPEN has provided useful input to the Green Paper particularly focused on packaging aspects.

Moving forward, it will be important to focus on efforts in the field of non-packaging plastic, through measures in fields including Extended Producer Responsibility (EPR), reinforced recycling targets etc.

In the paper, the term down-cycling is used, but not fully defined. As this word leads to confusion among stakeholders and might have a big impact on them, we kindly ask for further clarification of this term. We also ask for understanding of recycling technology and the fact that it is technologically not always possible to make a product that is exactly the same as it was before ending up in waste. This principle is not unique for plastics, but also applicable to other inert materials such as paper and wood. Anyway, this does not necessarily mean that the alternative application is “worse” than the original one.

## **EXPRA's answers to the questions of the Green Paper**

### **1. *Can plastic be appropriately dealt with in the existing legislative framework for waste management or does the existing legislation need to be adapted?***

The EU has a comprehensive waste *acquis* in place, including the Waste Framework Directive (WFD), the Packaging and Packaging Waste Directive (PPWD) and the Waste Electrical and Electronics Equipment Directive (WEEE). The provisions on recycling / reuse targets, the establishment of Extended Producer Responsibility (EPR) as a principle in waste management and the way it is defined in the case of plastic in the WEEE directive, all make significant contributions to this.

However, further efforts are needed in order to ensure that existing legislation is fully and adequately implemented. Also, accurate statistics are key when it comes to measuring Member States' compliance with waste management objectives, such as the recovery and recycling targets under the PPWD. They are also crucial for the ability to compare achievements and progress of increasing recycling rates. Further efforts are therefore also needed to ensure that waste management statistics are accurate and reliable.

Some adaptation of current waste legislation may also be required in order to ensure that plastic waste is appropriately dealt with. For example, we would recommend an expansion of the application of the waste hierarchy from the WFD to all other waste legislation to avoid confusion between the different waste streams. As regards plastic waste in particular, the focus should in this context be placed on recycling. Together with sound enforcement at both national and EU level, this should enable the shift from landfilling to prevention and recycling.

It is also important to ensure that EU waste legislation is coherent and that non-environmentally friendly activities such as landfilling are not supported through subsidies.

## **2. How can measures to promote greater recycling of plastic best be designed so as to ensure positive impacts for enhanced competitiveness and growth?**

It has been identified by several studies, including the Commission commissioned study on 'Use of Economic Instruments and Waste Management Performances', that the use of a range of different economic instruments, such as PAYT, EPR and landfill taxes/bans are key to promote better waste management and boost recycling in the EU. In this context, further identification and sharing of best practices could contribute to more sound waste management in general, part of this being increased recycling of plastic waste.

EPR has proven to be an efficient tool to increase recycling especially in the field of managing used packaging, and it is important to build on the best practices of EPR. Further research should also be carried out how which economic instrument is best for additional waste streams currently not covered by a specific regulation. This could contribute to achieving higher recycling rates.

Companies and the organizations that may take over the role of collection and recycling have proven to commit themselves fully and to increase recycling. This development can be proven by examples from the field of packaging waste in Netherlands, Belgium and the Czech Republic.

The Dutch government decided to change their policy towards packaging and to start extended producer responsibility in 2006. Not much later, the target for the recycling of plastic packaging was increased from ca. 32% (2006) to 42% (2012). As a result, the Dutch obliged companies have via their recovery organization Nedvang organized the collection of plastic packaging from households from scratch. This separate collection of plastic packaging has become obligatory for municipalities in 2010. With the support of a large media campaign and intensive cooperation with municipalities, recycling of plastic packaging waste has risen from 26% in 2006 to 51% in 2011. The approach has proven to be so successful, that arrangements have been made to cancel the existing mandatory deposit on PET beverage bottles of 1 litre or more if the positive development persists.

In Belgium, the packaging recovery organization Fost Plus also cooperates intensively with groups of municipalities, tendering the separate collection and sorting of packaging waste. The results of the Belgium collection system depend significantly on the "pay as you throw" - system for residual waste. Citizens have to pay for the amount of residual waste they dispose of, giving them an incentive to collect separately. This method has led to positive

results. Since many years, Belgium has one of the highest recycling rates for packaging.

The Czech Republic is another example of an EU Member State that has shown very positive results when it comes to plastic packaging recycling through the systematic implementation of not-for-profit EPR. The Czech Government's decision to promote EPR instead of a deposit system has shown to be fruitful. The decision was made based on the result of studies made, according to which the implementation of deposit systems could adversely impact the plastic recycling levels obtained.

Additional measures that can be taken in order to promote greater recycling of plastic waste include:

- Introduce suitable recycling targets where this not done yet – the PPWD introduced recycling targets in 1994 further to which Member States have transposed the requirements into national legislation. Adopting this policy instrument for other applications is likely to bring about environmental benefits.
- In the current EU policy context, we are likely to see an increase in the recycling targets for plastic packaging. It is important that this is carried out gradually and reasonably after a detailed and in-depth evaluation of the existing reporting rules and quality of the data reported by member states.
- Change the policy towards collection and treatment – further promote selective collection (which can take the form of containers, bins, municipal collection points etc.) and gradually phase out or ban landfilling. The sooner landfilling can be minimized and separate collection can be made compulsory, the more realistic is it for example to increase recycling targets.
- Strengthen control and enforcement of all waste related legislation on regional, national and European level.
- Increase funding of R&D activities for final markets of high added value for recycled plastics.
- Promote green public procurement (e.g. urban furniture made of recycled plastics).
- Set diversion targets from landfill (see below).
- Increase education activities and awareness raising campaigns to foster proper waste management.
- Encourage voluntary agreements between industry and Public Administrations.
- Maximize the potential and efficiency of raw waste sorting plants.
- Take action over 'uncontrolled' and badly managed landfilling.

In the context of the above, it is however important to take into account the mutual balance of recycling targets on one side and the use of waste in

energy generation on the other side. Energy recovery should be considered a complement to recycling as long as recycling of certain plastics is not possible respective useful.

It is also worth noting that current efforts aimed at the reduction of product weight (to maintain its required barrier properties at a lower weight) sometimes result in the design of multi-layer structures composed of different plastics. Such packaging is often more difficult to recycle in a satisfactory manner in existing recycling infrastructure; that is why the end-of-life treatment, especially the recycling, should be always taken into account when choosing a new packaging (design-for-recycling).

**3. *Would full and effective implementation of the waste treatment requirements in the existing landfill legislation reduce sufficiently current landfilling of plastic waste?***

Yes, for a reasonable amount of currently landfilled plastic waste. In the long run, the Landfill Directive should aim towards a ban on landfill, something that would further stimulate recycling as shown in member states with a landfill ban like Germany, Belgium and Austria. Possible increase in the obligatory targets for reuse/recycling could also make a significant contribution to reducing landfilling.

It is also important to ensure the full implementation and enforcement of existing legislation and to promote measures to increase recycling. Energy recovery should be considered a complement to recycling, in order to reduce plastic waste landfilling.

**4. *What measures would be appropriate and effective to promote plastic re-use and recovery over landfilling? Would a landfill ban for plastic be a proportionate solution or would an increase of landfill taxes and the introduction of diversion targets be sufficient?***

A direct introduction of a landfill ban is not a realistic option throughout the EU, as not all plastics may be suitable for recycling and energy recovery is not possible for all plastics. Also, not all Member States have the infrastructure for recycling and energy recovery to implement this in the short run and besides time it will need a lot of financial resources and acceptance by inhabitants (NIMBY factor) to build up the necessary treatment infrastructure. Another factor to consider is that a landfill ban or prohibitive tax could also result in a sizeable extension of the use of mixed plastic (including plastic components) in energy production if no additional measures are taken to stimulate recycling.

Sound enforcement of the waste hierarchy should contribute to enabling a shift from landfilling, and so should ensuring that the right target levels are in place in EU waste legislation. The latter should include the introduction of targets for material-specific uses in energy.

The overall aim should be an elimination of landfill, while a step-wise approach will need to be taken. Diversion targets for landfilling, together with the introduction of landfill taxes could make an important contribution to the gradual phase out of landfilling. It is critical to ensure the proper implementation of diversion targets in the Member States, but the abilities between different states to comply vary. Therefore, it is important that the Commission provides assistance and guidance to less performing Member States to help them improve their performance as required. EXPRA is in favor of implementing gate fees that fully reflect the actual costs of landfilling and the maintenance of the landfill site during five decades.

It is also important that any incentives to landfill residual waste should be eliminated. Out of options to recycle, incinerate and landfill, further efforts should be made to ensure that recycling is the cheapest option.

Complementary measures that could contribute to divert waste from being landfilled include:

- Optimization of collection and sorting for recycling.
- Energy recovery when this is a preferable option in terms of technical, environmental and economic efficiency with a regular check whether it is still preferable.

**5. *What further measures might be appropriate to move plastic waste recovery higher up the waste hierarchy thereby decreasing energy recovery in favour of mechanical recycling? Would a tax for energy recovery be a useful measure?***

It is important to ensure that each waste management option corresponds to its actual costs and environmental impact. This includes making sure that prices are not dumped for waste incineration or that landfilling is not made the cheapest waste management option. To ensure appropriate recycling and recovery targets in the PPWD is also important.

In the case of the WEEE directive it would be desirable to add relevant material-specific targets for recycling in order to complement or replace the existing general target expressed in kilogram per capita.

However, for plastics that cannot be recycled, the option of energy recovery should be available (taking into account the potential for each application and the infrastructure of each country).

It is necessary to carry out studies to set up the “technical limits” to material recycling different plastic applications. Once those limits are identified, new markets for high added value applications for recycled plastics have to be fostered in order to make recycling more competitive and create incentives for prioritizing recycling over other management options, in accordance with the EU waste hierarchy. Of course, these studies will have to be updated on a regular basis to always reflect the state-of-art.

**6. *Should separate door step collection of all plastic waste combined with pay-as you-throw schemes for residual waste be promoted in Europe, or even be made mandatory?***

Separate collection of plastic waste should be promoted. However, whether this is most suitably implemented via door step collection, container collection or via central collection stations depends on local circumstances.

PAYT can be a suitable tool to promote separate collection, but has to be implemented and monitored very well in order to avoid more littering or the use of bins of neighbors. PAYT systems have also been implemented in certain EU countries with some unwished side-effects. Whether to use PAYT systems is not something that should be decided at EU level, but should be left to the Member States / local decision makers as local circumstances vary as long as the Member State respective the local entity is able to fulfill the legal targets and standards in its alternative approach. The implementation of PAYT can for example be more difficult in countries where inhabitants have been, or are being, provided with waste collection services free of charge. In such circumstances, the introduction of PAYT schemes require acceptance by the citizens and behavioral changes / educational efforts may be required in order to ensure that waste is not littered or dumped.

When it comes to door step collection, the issue of transport of bulky materials over long distances also need to be considered, so as to ensure that the environmental benefits of recycling are not outweighed by the environmental impacts of transport. As such, a mandatory requirement cannot be applied generally.

The application of EPR systems for other waste streams could be useful to increase non-packaging plastics recovery. Nevertheless, collection systems for non-packaging plastics do not need to take the form of separate collection. Municipal collection points or the implementation of proper technology at raw waste plants could be suitable measures.

**7. Are specific plastic waste recycling targets necessary in order to increase plastic waste recycling? What other type of measures could be introduced?**

Theoretically it could be possible to define such a specific target in the Waste Framework Directive. This should however not be made before the effects of the existing directive have been evaluated. It is important that any potential new target is based on thorough and extensive studies / impact assessment to avoid that achievement by the current product specific directives (PPWD; WEEE) are harmed.

Focus on household packaging collection and away from home consumption is very important. The establishment of specific plastic waste targets is not the main issue. It is more important to focus on the establishment of a convenient infrastructure for inhabitants. It is therefore important to set up mandatory infrastructure, which means that the inhabitants will collect sufficient levels of household packaging regardless of the targets.

There are countries that have no formal division between commercial and household packaging when it comes to packaging waste collection. EXPRA considers the creation of such a division necessary; it can be difficult to differentiate between the two categories. Several packaging items classify as both household and commercial packaging.

**8. Is it necessary to introduce measures to avoid substandard recycling or dumping of recyclable plastic waste exported to third countries?**

It is difficult to define “substandard recycling”, as well as to control it. Therefore, measures aimed at restricting this phenomenon are likely to be difficult to enforce.

The issue of substandard recycling could be overcome through the introduction of a policy based on written proofs of recycling. These would be sent from the recycler to the supplier and would need to be properly enforced.

However, the introduction of a certification system should optimally be accessible and applicable to recyclers at a global level, as this would provide authorities and other stakeholders with sufficient proof of recycling and also improves data quality and reporting.

Exports of secondary raw materials should in general not be forbidden or too strongly regulated. Secondary raw materials are products that need to be considered as a commodity that can be traded over the world.

The EUCertPlast Project is a promising approach for monitoring the correct recycling of used plastics following high standards that could be developed further, especially to be used by non – European recyclers and auditors as well.

**9. Would further voluntary action, in particular by producers and retailers, be a suitable and effective instrument for achieving better resource use in the life cycle of plastic products?**

Voluntary action could be particularly useful in the field of plastic packaging, as this could make recycling easier (as to material combinations, colours, etc.). It is however important that such initiatives are fully transparent.

Achieving better resource use in the life cycle of plastic products is a complex matter, and voluntary agreements can contribute to avoiding problems related to implementation and monitoring.

An example of a voluntary initiative in the plastic sector that contributed to significant amounts of recycling is 'Vinyl 2010'. It generated the recycling of 260 842 tonnes of PVC waste, surpassing its initial target of 200 000 tonnes. Further to this successful outcome, a new target of 700 000 tonnes has been set for 2020. Also relevant to mention in this context is the UNESDA Code of Conduct on Recyclability of PET bottles from 2011.

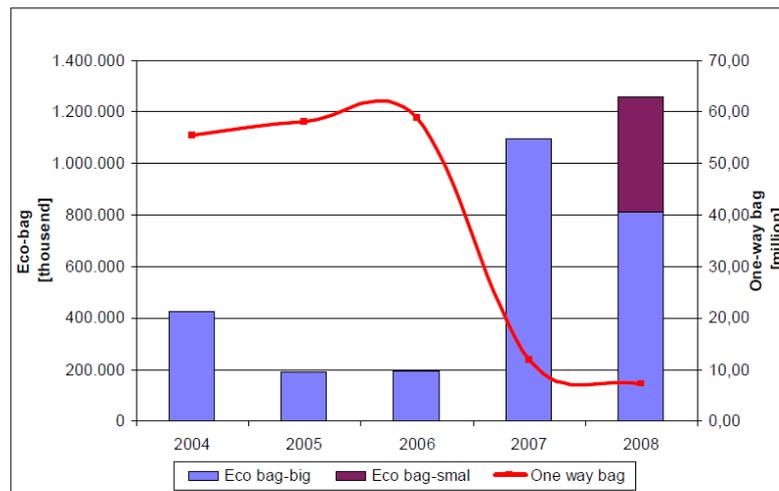
Voluntary agreements to reduce single use plastic bags consumption have also shown very good results. There are also voluntary measures to decrease packaging waste that have proven successful, with producers having taken measures to decrease packaging weight and increased packaging recyclability.

### **Case study**

#### ***Plastic shopping bags – example from Luxembourg***

The project is based on an environmental agreement with the Ministry of the Environment and VALORLUX which aims to introduce preventative measures as far as packaging and packaging waste is concerned.

In 2004, after elaborating several projects, VALORLUX finally chose to implement the eco-bag project, a PP woven reusable bag. The table below shows the evolution of this project.



This data represents the quantities sold by the 6 major supermarket groups in the Grand Duchy of Luxembourg and are therefore representative for the Grand Duchy.

At the launch phase in 2004/2005, the consumer did not really change his habits and was still using one-way plastic bags. VALORLUX then launched an awareness campaign in collaboration with the 6 major supermarket groups and the other members. They decided to support this project because on the one hand it reduced their costs and on the other hand, through VALORLUX they were able to provide consumers with a positive image of themselves by actively participating in an environmental project.

In 2008 VALORLUX had, and this on consumer demand, produced an eco-bag of a smaller size. This small eco-bag is primarily used for small purchases, and is perceived more like a “town bag” since it can be bent easily to fit in one’s pocket.

With the introduction of the small eco-bag the major supermarkets also decided to drop the free one-way plastic bags and replace them with payable bags with one single pattern. This bag is produced with 40% recycled material, which again contributes to reducing the use of raw plastic material.

These two initiatives were so successful that consumption of one-way plastic bags fell considerably from 90 million to only 10 million payable plastic bags within a year. Since 2004, VALORLUX has distributed 3.12 million eco-bags (2.67 million large eco-bags and 0.45 million small eco-bags) to our partners. This represents approximately 6.4 eco-bags per inhabitant of the Grand Duchy when taking year 2008 as a reference.

VALORLUX regular does surveys that aim to measure the influence of its prevention activities on the public. The figures represent a parameter to guide our sensitivity and information actions.

This success is based on two criteria: the neutrality of the eco-bag on the one side and the good collaboration between the partners (the Ministry of the Environment, major supermarket groups and VALORLUX) on the other.

Since this project is not limited to supermarkets or grocery shops, VALORLUX has extended this project to businesses such as bakeries, butchers and DIY shops. VALORLUX satisfactorily noticed that this project is now widely accepted by consumers and that VALORLUX managed to change consumer behaviour within a timeframe of less than 5 years.

It is also worth mentioning that other companies have tried in the past to distribute a similar bag, but their results were by far incomparable to those of VALORLUX.

Currently VALORLUX has 85 partners from various sectors and the demand to participate in this innovative project is rapidly growing.

**10. Is there scope to develop deposit and return or lease systems for specific categories of plastic products? If so, how could negative impacts on competition be avoided?**

Local or national deposit systems are in general problematic from an internal market perspective, as they may distort proper market functioning. For example, if only plastic packaging would be subject to deposit, other materials from which the same type of packaging could be made have a competitive advantage. This would lead to a loss of jobs in the plastics industry as a result of European legislation. Besides, deposit systems impose barriers to trade especially for companies with multilingual packaging and the need to adapt the look of packaging to the specifics of deposit systems in each country.

Deposit systems are not suitable for mass plastic products such as beverage containers. Apart from creating market distortions, these systems work against the creation of separate collection of household waste.

Belgium and the Netherlands are examples of countries that have demonstrated that deposit systems are not necessary at all to achieve high recycling rates. In the Netherlands, the growth in recycling has been achieved with separate collection accompanied by a powerful communication campaign ("Plastic Hero"); Belgium manages to maintain high recycling rates without having a mandatory deposit system.

Nevertheless, for specific products made from plastics besides packaging lease models as promoted for example in the Cradle-to-Cradle approach.

**11. What type of information would you consider necessary to empower consumers to make a direct contribution to resource efficiency when choosing a plastic product?**

It is important that both policy makers and industry contribute to enhanced consumer awareness. In order for consumers to make an active contribution to resource efficiency, it is also important to have an appropriate collection and recycling infrastructure which is easily available and understandable for the consumer.

It is important for the consumer to be fully aware how to properly manage waste in the context of separate household waste collection. Labeling and sorting instructions need to be clear. However, different recycling and sorting symbols placed on consumer packaging has very limited impact on consumer behavior and can cause confusion. For example, labels are seldom combined with sufficient amounts of explanatory text. Also, detailed information about packaging characteristics and content can also be misleading for consumers and is unlikely to contribute to consumers making more environmentally informed choices when purchasing products. Adding to this, different symbols can contribute to trade barriers and impede the proper functioning of the internal market.

On the other hand, targeted consumer information and educational campaigns, such as those run by national EPR schemes, often in close cooperation with local authorities, can make an important contribution to better consumer awareness on issues such as waste sorting, littering and the importance of recycling.

Moreover, people should learn in school about the opportunities and the consequences of their purchasing behaviour respective their opportunities and consequences of their waste treatment behaviour. So, they can make a responsible choice when buying products (knowing for example the advantages of long-use products versus short-use products like reusable carrier bags versus one-way carrier bags) and will sort their waste in the right way instead of littering or putting all waste together.

**12. Which changes to the chemical design of plastics could improve their recyclability?**

Chemical design is a response by producers to enhance the quality of the properties of plastic material. Plastic material needs to be composed in the most sustainable way within its technical limitations, taking its entire life cycle into consideration. Therefore, further R&D should be promoted as a way to

help industry applying eco-design while also taking the waste management phase of the product into consideration.

Furthermore, rather than relating to the composition of plastic itself (except for when it comes to the levels of heavy metals and certain other substances), a challenge related to plastic waste recycling relates to the presence of plastics combined in several inseparable layers, which currently makes it more difficult to recycle. On the other hand it should also be noted that there are certain benefits related to multi-layer packaging, for example that they can extend (shelf) life of products.

In a similar context, another example of problems related to plastic waste recyclability is represented by PET bottles covered with (full body) sleeves produced with certain polymers. These bottles, because of the presence of these sleeves, are partly lost during sorting and recycling processes.

Industry should be encouraged to follow industry guidelines, such as the 2011 UNESDA Code of Conduct on PET Recyclability especially if they are used only for marketing purposes.

### **13. How could information on the chemical content of plastics be made available to all actors in the waste recycling chain?**

To define certain standards for predominantly used (and recycled) plastic types would be helpful, as well as providing manufacturers with an opportunity to label such products as plastics corresponding to standards. While standardisation can be useful from a technical perspective, mandatory marking is not required. Sorting will not be carried out based on packaging marking in any case.

It is important to promote information exchange. This can for example take the form of round tables with the participation of actors in the plastic value chain.

### **14. How can challenges arising from the use of micro plastics in products or industrial processes and of nano-particles in plastics be best addressed?**

It should be noted that the use of these materials is relatively small. Additional research on their environmental or toxicological impacts would be welcomed by EXPRA.

Taking account the requirement for maintaining competitiveness a challenge of this type can best be solved by means of an international agreement, for instance similar to the convention on the ban of CFCs.

**15. Should product design policy tackle planned obsolescence of plastic products and aim at enhancing re-use and modular design in order to minimize plastic waste?**

Such a policy would not have any significant effect on the volume of waste, but could have a negative impact on the competitiveness of products made in the EU, as it targets products with fast innovation cycles.

**16. Could new rules on eco-design be of help in achieving increased reusability and durability of plastic products?**

Product design and eco-design are important. EPR is of key importance in this context. It allows for the internalization of the price of both reusability and durability in the product price.

EPR also encourages investment in the most efficient solutions to reduce the production of plastic material and the amount of final waste.

**17. Should market based instruments be introduced in order to more accurately reflect environmental costs from plastic production to final disposal?**

The problem with such an approach is to have an undisputed methodology to calculate the environmental costs. For applications such as packaging and WEEE, plastics are used to stimulate the long-lived use of a product or a function (e.g. using a computer). Introducing instruments just focusing on plastic as a material would therefore counterproductive.

EPR is based on the key overarching principle of ensuring that producers take responsibility for the end-of life management of their products. In this way the whole recycling chain is optimised and their packaging developed in a more sustainable way. As such, it is important to strengthen producer responsibility and increase its use. A suitable way of doing so would for example be to explicitly introduce EPR as a principle in the PPWD.

**18. How can the waste burden posed by short-lived and single-use disposable plastic products best be addressed?**

This could be done by better integrating the management costs of the products into the price of the product through EPR.

This can also be addressed through appropriate recycling and recovery targets and through well implemented separate collection of waste.

The issue of consumer behavior and education to consumers should also be stressed in this context. Consumers should be educated on the environmental impact of the use of short-lived and single-use disposable (plastic) products. By doing so, they can better decide whether to buy and use such products.

### **19. What are the applications for which biodegradable plastics deserve to be promoted, what framework conditions should apply?**

First and foremost, it is important to clearly define “biodegradable” plastics. These kinds of plastics are made from different materials, including renewable raw materials and petrochemicals. The definition needs to be fully clear before looking at when one type or another should or should not be promoted. It is, for example, important to clarify that biodegradability is an end-of-life property, and does not mean that the plastic comes from a renewable source. Moreover, it is important to be clear to the public when this biodegradability can be reached at home in private compost or only within a composting plant.

Biodegradability of plastic can be promoted, for certain applications, as a way to avoid landfilling, and in case no other recycling or recovery option which is more environmentally friendly is available. However, EXPRA considers that, when possible, efforts should be focused on enhancing the recyclability of products. Also, possible effects of the increased use of biodegradable plastic on recycling rates should be considered.

It should also be born in mind that shifting from a petro-based plastic packaging to biodegradable plastic packaging (like shifting from usual plastic carrier bags to biodegradable plastic carrier bags) would not solve problems such as littering, as they would not reduce the amount of bags discarded as litter. They may, in fact, add to the litter problem if and when consumers get the impression that biodegradable plastic bags can ‘break down and disappear’ in nature. Therefore, efforts in the field of consumer awareness are also needed.

**20. Would it be appropriate to reinforce existing legal requirements by making a clear distinction between naturally compostable and technically biodegradable plastics, and should such a distinction be subject to mandatory information?**

Yes, this should be subject to a clear and easy to understand information for the consumer to avoid that he tries to home compost products which only degrade in a specific plant. Also in this context, it is very important to use clear definitions of different plastics to avoid misperception.

**21. Would the use of oxo-degradable plastic require any kind of intervention with a view to safeguarding recycling processes, and if so, on which level?**

In case oxo-degradable plastics found any wider use and recycled materials would become contaminated by oxidizing agents, the standard of recycling and/or possibility of recycled material application would be significantly impaired. Therefore, such plastics should be clearly labelled with a 'warning' that the material must not be handed for recycling together with other plastics. As those plastics do not comply with the composting standard and lack environmental benefits (on the contrary, they encourage litter), we recommend considering a ban of that type of material.

EXPRA would welcome additional research on the environmental risks related to oxo-degradable plastics.

**22. How should bio-based plastics be considered in relation to plastic waste management and resource conservation? Should the use of bio based plastics be promoted?**

For bio-based packaging, is important as for any new material that they are composed in a way that does not negatively impact the collection, sorting and recyclability or end of life treatment of existing infrastructure.

There are, however, various types of bio-based plastics with different characteristics (e.g. partly / fully biobased, different types of raw materials used in its origin, barrier properties and end of life options ranging from recyclable to energy recovery and compost). It is important to keep these differences in mind, as well as the fact that there does not seem to exist enough life cycle assessment to prove the complete benefits of one material over the other.

Worth mentioning in this context is that the environmental impact of the packed product is generally much higher than the impact of the packaging,

and we should promote the best solution to avoid product waste (e.g. food waste).

The recycling of conventional plastic ensures that its raw material compounds are preserved, and it contributes to primary and non-renewable raw material savings. Worth noting, there are already several examples of bio-based packaging that are able to be recycled, including partly bio-based PET bottles (“plant bottle”) and yoghurt packaging from made from PLA. We would recommend looking into further ways to recycle used bio-based packaging.

**23. What actions other than those described in this Green Paper could be envisaged to reduce marine litter? Should some marine litter related actions be coordinated at EU level (e.g. by setting up a coordinated European Coastal Clean-up Day to raise awareness)?**

First and foremost, it is important to ensure that marine litter is properly defined and takes into account, *inter alia*, sources, total representation in the waste generation etc.

The existing figures on marine litter show that the majority (about 80%) is land based and the result of imperfections in waste management especially poorly managed landfills located at sea side and rivers. It is therefore important to ensure that sound and well-functioning waste management infrastructure and recycling facilities are in place.

Further European initiatives to promote selective collection, an increase of recycling and a minimization of landfilling (as well as improved management) and littering may reduce the impact of land based waste on marine litter.

It is important to encourage / educate citizens to separate their waste, not to litter it etc., but of course for this an appropriate infrastructure of collection equipment has to be provided to the inhabitants.

It is important that the EU and its Member States provide know-how and waste management assistance to non-EU countries. A concrete example is Lebanon, which has problems of landfills that spill into the Mediterranean Sea as shown in the recently published movie “Trashed” by Jeremy Irons.

Initiatives such as ‘coastal clean-up days’ are suitable to engage citizens and raise their awareness of the problem of marine litter.

For 20% of marine litter (from sea based sources), the challenge is more difficult as littering takes place in a more uncontrolled environment. Especially here, it should be analyzed if it is possible to hold disposers of the waste

(shippers) responsible and extend the network of collection and control of waste in harbors. It should be evaluated whether parts of the subsidies to the fishing industry can be connected with a mandatory waste collection system on board of the fisher boats.

**24. In its proposal for a new Environment Action Programme the Commission suggests that an EU wide quantitative reduction target for marine litter be established. How can the setting of such a target provide added value to measures that reduce plastic waste generally? How could such a target be developed?**

The introduction of such a target would be difficult for various reasons:

- Marine litter does not derive only from EU Member States.
- It could be complex to create such a target in practice as it would have to be developed aiming towards the misbehavior of people who litter. Such a target could be defined in terms of number of pieces, weight or volume, but it a well-functioning tool to implement / measure would most likely be difficult to set up.

**25. Should the EU attach a higher priority to plastic waste in the framework of its "New Neighbourhood Policy", particularly in order to reduce plastic littering in the Mediterranean and in the Black Seas?**

Yes, this is of key importance. The mentioned problems of marine debris can only be solved on an international level, see our answer to question 23. Helping those countries to improve their waste management systems will also help them to decrease their CO<sup>2</sup> emissions and create new jobs.

**26. How could the EU promote more effectively international action to improve plastic waste management worldwide**

Through the provision of financial assistance to non-EU countries particularly targeted to waste management projects and through promoting sharing of best practices and experience for example by using the system of TAIEX not only for possible candidates for EU membership but also for other non EU countries.

Moreover, organizations like the OECD are running international studies on best practices in different environmental fields so that a focus could be proposed on (plastic) waste management to develop (legislative) guidelines and best practices that could be used by other countries.